

PG&E Letter DCL-21-062
PG&E Letter DIL-21-007

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

10 CFR 50.90

Diablo Canyon Units 1 and 2
Docket No. 50-275, OL-DPR-80
Docket No. 50-323, OL-DPR-82
Docket No. 72-26, Materials License No. SNM-2511
Diablo Canyon Independent Spent Fuel Storage Installation
License Amendment Request 21-04
Proposed Changes to the Diablo Canyon Power Plant Emergency Plan for Post-Shutdown and Permanently Defueled Condition

References:

1. PG&E Letter DCL-18-096, "Certification of Permanent Cessation of Power Operations," dated November 27, 2018 (ML18331A553)

Dear Commissioners and Staff:

Pursuant to 10 CFR 50.90, Pacific Gas and Electric Company (PG&E) hereby requests approval of the enclosed proposed amendment to Facility Operating License(s) (FOL) Numbers DPR-80 and DPR-82 for Diablo Canyon Power Plant (DCPP) Units 1 and 2. The proposed amendment would revise the DCPP Emergency Plan (E-Plan) for the post-shutdown and permanently defueled condition. The proposed changes are being submitted to the U.S. Nuclear Regulatory Commission (NRC) for approval prior to implementation, as required under 10 CFR 50.54(q)(4).

In Reference 1, PG&E notified the NRC that the decision was made to permanently cease operations at DCPP Units 1 and 2 upon expiration of the operating licenses. The FOL for DCPP Unit 1 expires on November 2, 2024, and the FOL for DCPP Unit 2 expires on August 26, 2025. Upon docketing of the certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessels for Units 1 and 2, in accordance with 10 CFR 50.82(a)(1)(i) and (ii), the 10 CFR 50 licenses will no longer authorize operation of the reactors or placement of fuel in the reactor vessels in accordance with 10 CFR 50.82(a)(2).

The proposed changes to the E-Plan are commensurate with the reduced spectrum of credible accidents in the post-shutdown and permanently defueled condition. In order to assist in the transition from an operating facility to a permanently defueled facility, the risk-informed changes are required to properly reflect the reduction in radiological risk and conditions of the facility while continuing to maintain the effectiveness of the E-Plan and preserve the DCPD Decommissioning Trust Funds.

The proposed changes have been evaluated in accordance with 10 CFR 50.91(a)(1) using criteria in 10 CFR 50.92(c), and PG&E has determined that this change involves no significant hazards consideration. PG&E has also determined that the proposed E-Plan changes satisfy the criteria for categorical exclusion in accordance with 10 CFR 51.22(c)(9) and do not require an environmental review. Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment is required.

The description and evaluation of the proposed E-Plan changes are contained in Enclosure 1. Attachment 1 provides a tabular summary of the proposed changes to the E-Plan. Attachment 2 provides the marked up pages of the E-Plan sections affected by the proposed changes. Attachment 3 provides a clean copy of the Post-Shutdown E-Plan (PSEP), including a copy of the post shutdown on-shift staffing analysis as PSEP, Appendix F. Attachment 4 provides a summary of emergency response organization (ERO) tasks that will be reassigned to remaining ERO positions.

PG&E provided the California Governor's Office of Emergency Services and County of San Luis Obispo Office of Emergency Services with a draft copy of the DCPD PSEP for comment. Comments were provided to PG&E on the draft copy and PG&E addressed these comments to their satisfaction. Enclosure 1 Attachment 5 provides copies of letters from each offsite response organization confirming the completion of their review of the draft PSEP with no further comments at this time.

Enclosure 2 contains a supplemental action related to this submittal.

PG&E makes no new or revised regulatory commitments (as defined by NEI 99-04) in this submittal.

PG&E requests a 180-day implementation period from the effective date of the amendment. PG&E requests that the approved amendments become effective after the following conditions have been met:

- docketing of the certifications required by 10 CFR 50.82(a)(1)(i and ii) for DCPD Units 1 and 2 and
- the DCPD Permanently Defueled Technical Specifications are implemented.

In accordance with site administrative procedures and the Quality Assurance Program, the proposed amendment has been reviewed by the Plant Staff Review Committee.

Pursuant to 10 CFR 50.91, PG&E is notifying the State of California of this License Amendment Request by transmitting a copy of this letter and enclosures to the California Department of Public Health.

If you have any questions or require additional information, please contact Mr. Philippe Soenen at 805-459-3701.

I state under penalty of perjury that the foregoing is true and correct.

Executed on October 08, 2021.

Sincerely,



Maureen R. Zawalick
Vice President, Generation Business and Technical Services

Enclosures

cc: Diablo Distribution
cc/enc: Ayesha Athar, NRC Acting Senior Resident Inspector
Wade Horton, Administrative Officer, County of San Luis Obispo Office of
Emergency Services
Samson S. Lee, NRR Senior Project Manager
Scott A. Morris, NRC Region IV Administrator
Gonzalo L. Perez, Branch Chief, California Dept of Public Health
Michael Warren, Manager, Radiological Preparedness Unit, California
Governor's Office of Emergency Services

Evaluation of the Proposed Changes

Subject: License Amendment Request 21-04, Proposed Changes to the Diablo Canyon Power Plant Emergency Plan for Permanently Shutdown Condition

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Acronyms

CFH	Certified Fuel Handler
CFR	Code of Federal Regulations
DBA	Design Basis Accident
DC	Diablo Canyon
DCPP	Diablo Canyon Power Plant
EAL	Emergency Action Level
ENS	Emergency Notification System
EOF	Emergency Operations Facility
EP	Emergency Preparedness
EPIP	Emergency Plan Implementing Procedure
E-Plan	Emergency Plan
ERDS	Emergency Response Data System
ERF	Emergency Response Facility
ERO	Emergency Response Organization
FEMA	Federal Emergency Management Agency
FHA	Fuel Handling Accident
FMT	Field Monitoring Team
GE	General Emergency
HPN	Health Physics Network
I&C	Instrumentation and Control
ISFSI	Independent Spent Fuel Storage Installation
ISG	Interim Staff Guidance
JIC	Joint Information Center

LAR	License Amendment Request
NCO	Non-Certified Operator
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
OSA	On-Shift Staffing Analysis
OSC	Operations Support Center
PAR	Protective Action Recommendation
PDEP	Permanently Defueled Emergency Plan
PG&E	Pacific Gas and Electric Company
PPC	Plant Process Computer
PSEP	Post-Shutdown Emergency Plan
RCA	Radiologically Controlled Area
RCS	Reactor Coolant System
RO	Reactor Operator
RP	Radiation Protection
SFP	Spent Fuel Pool
SNF	Spent Nuclear Fuel
SRO	Senior Reactor Operator
STA	Shift Technical Advisor
TSC	Technical Support Center
UDAC	Unified Dose Assessment Center
UE	Unusual Event
UFSAR	Updated Final Safety Analysis Report

1 SUMMARY DESCRIPTION

Pursuant to Title 10, Code of Federal Regulations (CFR) 50.90, Pacific Gas and Electric Company (PG&E) requests U.S. Nuclear Regulatory Commission (NRC) review and approval of a revision to the Diablo Canyon Power Plant (DCPP) Units 1 and 2 Emergency Plan (E-Plan) – the Post-Shutdown Emergency Plan (PSEP).

The proposed changes would revise the DCPP E-Plan and the on-shift and augmented Emergency Response Organization (ERO) staffing to support the planned permanent cessation of operations and permanent defueling of the DCPP reactors ([Reference 8.1](#)). The proposed reduction from current operating on-shift and augmented ERO staffing is commensurate with the need to safely store spent nuclear fuel (SNF) at the facility in a manner that protects the public health and safety.

PG&E has reviewed the proposed changes against the planning standards in 10 CFR 50.47(b) and requirements in 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," and has concluded that the standards and requirements will continue to be met. Therefore, no exemption from 10 CFR 50.47 or 10 CFR 50, Appendix E, is requested in support of this License Amendment Request (LAR).

The Diablo Canyon Independent Spent Fuel Storage Installation (DC ISFSI) is licensed under a site-specific license and is located at the DCPP site. Thus, the DCPP E-Plan also meets the requirements of 10 CFR 72.32(c). There are no proposed changes that directly impact the DC ISFSI.

2 PROPOSED CHANGES

The proposed changes would revise the DCPP E-Plan and the on-shift and augmented ERO staffing to reflect the pending permanent cessation of power operations ([Reference 8.1](#)) and the planned permanent removal of SNF from the DCPP reactor vessels. Specifically, the proposed changes would eliminate the on-shift positions not needed for the safe storage of SNF in the spent fuel pools (SFPs) during the initial decommissioning period and eliminate the augmented staffing positions not necessary to effectively respond to credible accidents in a permanently shut down and defueled condition.

[Attachment 1](#) provides a tabular summary of the proposed changes to the DCPP E-Plan. [Attachment 2](#) provides the DCPP E-Plan sections affected by proposed changes shown in markup format and [Attachment 3](#) provides a clean version of the revised DCPP E-Plan (i.e., the PSEP).

Currently, [DCPP E-Plan Table 5-1](#), "DCPP On-Shift and Augmented ERO" specifies the on-shift and augmented staffing for certain positions in the following Major Functional Areas:

- Plant Operations and Assessment of Operational Aspects
- Emergency Direction and Control
- Notification and Communication
- Radiological Assessment
- Plant System Engineering, Repair, and Corrective Actions
- In-Plant Protective Actions
- Firefighting
- First Aid and Rescue Operations
- Site Access Control and Accountability

The proposed post-shutdown on-shift and augmented ERO staff will continue to address the Major Functional Areas.

2.1 On-Shift Staffing

Currently, the [DCPP E-Plan Table 5-1](#) specifies the following 22 on-shift staff:

- One (1) Shift Manager
- Two (2) Unit Shift Supervisors
- Four (4) Control Room Operators
- Five (5) Non-Licensed Operators
- Two (2) Shift Phone Talkers
- Two (2) Radiation Protection (RP) Technicians
- One (1) Work Control Shift Foreman/Shift Technical Advisor (STA)
- Five (5) Fire Department
- Security personnel per the Security Plan

To support reduced staffing following permanent cessation of operations and permanent removal of SNF from the reactor vessels, the staffing levels have been evaluated using the methodology in Nuclear Energy Institute (NEI) 10-05, "Assessment of On-Shift Emergency Response Organization Staffing and Capabilities," ([Reference 8.2](#)) which evaluates the postulated accidents that will be applicable in the permanently defueled condition. The supporting analysis is provided in [Attachment 3](#) (as [DCPP E-Plan Appendix F](#)). The proposed changes to the DCPP E-Plan will eliminate the following on-shift positions:

- Two (2) Unit Shift Supervisors
- Four (4) Control Room Operators
- Two (2) Non-Licensed Operators
- Two (2) Shift Phone Talkers

- One (1) Work Control Shift Foreman/STA

The required on-shift staff following permanent defueling is commensurate with the need to safely store SNF at the facility in a manner that is protective of public health and safety. The proposed post-shutdown on-shift staff will continue to address the Major Functional Areas and will consist of:

- One (1) Shift Supervisor (renamed from Shift Manager; qualified as a Certified Fuel Handler (CFH))
- One (1) CFH
- Three (3) Non-Certified Operators (NCOs)
- Two (2) RP Technicians
- Fire Department members per the DCPD Fire Protection Program. Note that two Fire Department personnel are also assigned First Aid and Rescue responsibility as a collateral duty.
- Security personnel per the Security Plan

Changes in position titles (e.g., Non-Certified Operator, CFH, respectively) are consistent with proposed changes to the DCPD Technical Specifications that revise the minimum shift staffing requirements at DCPD by replacing references to licensed and non-licensed operators with references to CFHs and NCOs (termed the Permanently Defueled Technical Specification LAR, submitted to NRC on December 3, 2020, [Reference 8.4](#)).

For each Unit, an individual qualified as a CFH will supervise fuel handling operations in the permanently shut down and defueled condition and retain Command and Control until augmented emergency response facilities (ERF) are activated. NCOs will perform duties typically associated with those performed by current Non-Licensed Operators, such as manipulation and monitoring of plant equipment. NCOs can also be assigned to monitor indications and communications in the Control Room. As discussed in the Permanently Defueled Technical Specification LAR ([Reference 8.4](#)), the DCPD CFH Training and Retraining Program will be implemented in accordance with 10 CFR 50.2. Control Room Operators will not be utilized in the permanently shut down and defueled condition.

The proposed changes to the on-shift organization are identified in the [DCPD E-Plan Table 5-1](#), "DCPD On-Shift and Augmented ERO" included in [Attachment 2](#) and [Attachment 3](#), and are summarized in [Attachment 1](#) of this document.

2.2 Augmented Emergency Response Organization Staffing (Minimum Staffing)

The DCPD E-Plan identifies the Minimum Staff as those ERO members that are required to staff their respective ERF (Technical Support Center (TSC), Emergency Operations Facility (EOF), and Operations Support Center (OSC)) at the appropriate Emergency Action Level (EAL) Classification level. Augmented Minimum Staffing

consists of both "60-Minute" and "90-Minute" responders, as presented in [DCPP E-Plan Table 5-1](#) and [Table 5-2](#). No changes to response times are proposed for the PSEP.

Proposed revisions would eliminate four (4) Minimum Staff positions as shown in [Table 2-1](#), "DCPP Minimum Staff Positions" below. Eleven (11) positions (15 personnel) have been added as Minimum Staff as shown in [Table 2-1](#) below.

Table 2-1 DCPP Minimum Staff Positions

Current Minimum Staff Positions	Proposed Minimum Staff Positions <i>(Response times are 90 minutes unless otherwise noted for non-eliminated positions)</i>
TSC	
Site Emergency Coordinator	Site Emergency Coordinator
Agency/Emergency Notification System (ENS) Communicator	ENS Communicator
Reactor Engineer	Position Eliminated
Communications Advisor	Position Eliminated
Radiological Data Processor	Position Eliminated
N/A	Operations Advisor (60-Minute Response) <i>(added as Minimum Staff)</i>
N/A	Radiological Advisor <i>(added as Minimum Staff)</i>
N/A	Engineering Advisor <i>(added as Minimum Staff)</i>
N/A	Security Advisor <i>(added as Minimum Staff)</i>
OSC	
OSC Director	OSC Director
N/A	Two (2) RP Technicians (one [1] for radiological assessment and one [1] for in-plant protective actions) (60 Minute Response) <i>(added as Minimum Staff)</i>
EOF	
Emergency Director	Emergency Director
Communications Coordinator	Communications Coordinator
Offsite Communicator	Position Eliminated
Radiological Manager	Radiological Manager
Dose Assessor	Dose Assessor
N/A	Off-site Field Monitoring Team (FMT) Four (4) Personnel <i>(added as Minimum Staff)</i>

Table 2-1 DCPD Minimum Staff Positions

Current Minimum Staff Positions	Proposed Minimum Staff Positions <i>(Response times are 90 minutes unless otherwise noted for non-eliminated positions)</i>
N/A	EOF Director <i>(added as Minimum Staff)</i>
N/A	Advisor to the County <i>(added as Minimum Staff)</i>
N/A	FMT Coordinator <i>(added as Minimum Staff)</i>
N/A	Engineering Liaison Reduced from Two (2) to One (1) Personnel <i>(added as Minimum Staff)</i>
N/A	Government Relations Coordinator <i>(added as Minimum Staff)</i>
Joint Information Center (JIC)	
None	None

2.3 Full Augmented Staff Change

The Full Augmented Staff (non-Minimum) are presented in [DCPD E-Plan Section 5](#), [Table 5-1](#), and [Figures 5-2, 5-3, 5-4, and 5-5](#).

The proposed changes to the Full Augmented ERO positions are identified in [Table 2-2](#) below.

Table 2-2 DCPD Full Augmented ERO Staff Positions

Current Full Augmented ERO Staff Positions	Proposed Disposition <i>(Response times are 90 minutes unless otherwise noted for non-eliminated positions)</i>
TSC	
TSC Director	Position Eliminated
Operations Communicator (in the Control Room)	Position Eliminated
Mechanical Engineer	Position Eliminated
Electrical Engineer	Position Eliminated
Radiological Advisor	Assigned to Minimum Staff
Engineering Advisor	Assigned to Minimum Staff
Operations Advisor	Assigned to Minimum Staff (60-Minute response)
Maintenance Advisor	Position Eliminated
Plant Process Computer (PPC) Operator	Position Eliminated
Security Advisor	Assigned to Minimum Staff

Table 2-2 DCPD Full Augmented ERO Staff Positions

Current Full Augmented ERO Staff Positions	Proposed Disposition <i>(Response times are 90 minutes unless otherwise noted for non-eliminated positions)</i>
OSC	
Team Coordinator	Position Eliminated
RP Technicians – six (6) total	Two 60-Minute responders assigned to Minimum Staff (one [1] for radiological assessment and one [1] for in-plant protective actions); remainder eliminated
Chemistry Coordinator	Position Eliminated
Operations Coordinator	Position Eliminated
Site RP Coordinator	Position Eliminated
Mechanical Maintenance Coordinator	Position Eliminated
Electrical Maintenance Coordinator	Position Eliminated
Instrumentation and Control (I&C) Maintenance Coordinator	Position Eliminated
Maintenance, RP, Chemistry, and Operations Personnel	Positions Eliminated
EOF	
EOF Director	Assigned to Minimum Staff
Health Physics Network (HPN) Communicator	Position Eliminated
Engineering Liaisons – two (2)	One (1) assigned to Minimum Staff; remainder eliminated
Advisor to the County EOC	Assigned to Minimum Staff
Government Relations Coordinator	Assigned to Minimum Staff
General Office Technical Liaison	Designated Full Augmentation per Emergency Plan Implementing Procedures (EPIPs)
Dose Assessment Coordinator	Position Eliminated
Unified Dose Assessment Center (UDAC) Meteorologist	Designated Full Augmentation per EPIPs
FMT Coordinator	Assigned to Minimum Staff
Off-site FMTs consisting of Leaders and Drivers – two (2) each	Two (2) Off-site FMT (Two [2] personnel each) assigned to Minimum Staff
On-site FMT, consisting of Leader and Driver – one (1) each	Positions Eliminated
FMT Communicator	Position Eliminated
Offsite Emergency Lab Analyst	Designated Full Augmentation per EPIPs
Security Liaison	Position Eliminated

Table 2-2 DCPD Full Augmented ERO Staff Positions

Current Full Augmented ERO Staff Positions	Proposed Disposition <i>(Response times are 90 minutes unless otherwise noted for non-eliminated positions)</i>
Security	Position Eliminated
JIC	
Company Spokesperson	Company Spokesperson
JIC Director	JIC Director
Public Information Officer	Public Information Officer
News Media Liaison – Corporate	Designated Full Augmentation per EIPs
News Media Liaison – Site	Designated Full Augmentation per EIPs
Technical Advisor – Operations	Position Eliminated
Technical Advisor – Health Physics	Position Eliminated
News Writer	Position Eliminated
Assistant Public Information Officer	Position Eliminated
JIC Security	Position Eliminated

3 REASON FOR PROPOSED CHANGES

The proposed changes reflect the permanent cessation of power operations, which is anticipated to occur at the end of the existing DCPD Unit 1 and 2 operating licenses ([Reference 8.1](#)), and the planned permanent defueling of the DCPD reactors. SNF can currently be located in the reactor vessels, SFPs, and at the DC ISFSI. After the reactors are permanently shut down, all SNF in the reactor vessels will be removed and placed in the SFPs where it will be stored until transferred to the DC ISFSI. It will remain at the DC ISFSI until it is transferred to the U.S. Department of Energy, or licensed entity, for off-site transport to a licensed facility. Upon docketing of the certifications for permanent cessation of power operations (10 CFR 50.82(a)(1)(i)) and permanent removal of SNF from the reactor vessels (10 CFR 50.82(a)(1)(ii)), pursuant to 10 CFR 50.82(a)(2), the 10 CFR 50 licenses will no longer authorize operation of the reactors or emplacement or retention of SNF into the reactor vessels.

The proposed revisions to the DCPD E-Plan are commensurate with the reduction in hazards associated with the permanently shut down and defueled condition and will allow DCPD to transition from an appropriate staffing level required for an operating facility to that required for a permanently shut down and defueled facility. The proposed changes are required to properly reflect the conditions of the facility while continuing to maintain the effectiveness of the DCPD E-Plan and preserve the DCPD Nuclear Decommissioning Trusts.

4 BACKGROUND

4.1 On-Shift and ERO Staffing Guidance

NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," ([Reference 8.3](#)), Section II.B, "Onsite Emergency Organization," presents guidance for meeting the planning standards and requirements of 10 CFR 50.47(b) and 10 CFR 50, Appendix E, Section IV.A. The guidance describes the on-site emergency organization, including the staffing requirements found in Table B-1, "Minimum Staffing Requirements for NRC Licensees for Nuclear Power Plant Emergencies." This table specifies a minimum of ten (10) on-shift responders in four (4) Major Functional Areas. It also specifies seven (7) on-shift response functions where the duties may be performed by shift personnel who are assigned other functions (i.e., there are no dedicated responders to perform these functions). Table B-1 specifies two (2) Major Functional Areas (i.e., firefighting and site access control/personnel accountability) which must be staffed on a site-specific basis.

The on-shift staff must be able to cope with a spectrum of events until augmenting ERO personnel arrive in accordance with the site's E-Plan commitments. The augmenting ERO responders assume many managerial, engineering, and administrative duties from the on-shift personnel, allowing on-shift personnel to focus more fully on plant operations.

In 2011, the NRC published a final rule in the Federal Register (i.e., 76FR72560) amending certain Emergency Preparedness (EP) requirements in its regulations that govern domestic licensing of production and utilization facilities ([Reference 8.5](#)). This final rule amended 10 CFR 50, Appendix E, Section IV.A, "Organization," to address the assignment of tasks or responsibilities to on-shift ERO personnel that could potentially overburden them and prevent the timely performance of their E-Plan functions. Specifically, Section IV.A.9 states that licensees shall perform "...a detailed analysis demonstrating that on-shift personnel assigned emergency plan implementation functions are not assigned responsibilities that would prevent the timely performance of their assigned functions as specified in the emergency plan."

Coincident with the rule change in 10 CFR 50, Appendix E, Section IV.A.9, the NRC issued Interim Staff Guidance (ISG) NSIR/DPR-ISG-01, "Interim Staff Guidance - Emergency Planning for Nuclear Power Plants" ([Reference 8.6](#)). This ISG provides information relevant to performing the on-shift staffing analysis. The ISG states that the NEI developed NEI 10-05, "Assessment of On-Shift Emergency Response Organization Staffing and Capabilities," ([Reference 8.2](#)) to establish a standard methodology for a licensee to perform the required staffing analysis, and that the NRC reviewed NEI 10-05 and found it to be an acceptable methodology for this purpose. The ISG also indicates that the completed staffing analyses are required to be part of the E-Plan and the results documented and submitted to the NRC in accordance with 10 CFR 50.54(q)(5).

4.2 DCPD On-Shift Staffing

In 2012, an On-Shift Staffing Analysis (OSA) was performed in accordance with the guidance in NEI 10-05 to satisfy the requirements of 10 CFR Part 50, Appendix E Section IV.A.9. This analysis examined the capability of the existing minimum staff listed in [Table 5-1](#) of the DCPD E-Plan to perform the key emergency response actions for events described in NSIR/DPR-ISG-01 until augmenting ERO staff arrive. The emergency response to each of the events described in NSIR/DPR-ISG-01 was determined by conducting a tabletop of the event using the E-Plan and procedures and the applicable departmental procedures such as emergency and abnormal operating procedures.

Each scenario was reviewed to determine the required plant actions and E-Plan implementation actions based on plant procedures prior to staff augmentation. These actions were then compared to the minimum on-shift staffing for emergency response implementation as described in [Table 5-1](#) of the DCPD E-Plan, ensuring that no actions were assigned to staff members that conflicted with either their dedicated emergency response role or their dedicated operational role, as appropriate. In cases where multiple tasks were assigned to an individual, the timing of the tasks was evaluated to ensure that they could be performed by the individual in series within any specified time requirements.

The accident scenarios considered in this 2012 OSA were the Large Break Loss of Coolant Accident, Steam Generator Tube Rupture, Reactor Coolant Pump Locked Rotor, Fuel Handling Accident (FHA), Fire Requiring Control Room Evacuation, Control Rod Mechanism Housing Rupture, Waste Gas Rupture, Liquid Holdup Rupture, Volume Control Tank Rupture, Station Blackout, Design Basis Threat Ground Assault, and Probable Aircraft Threat. The 2012 OSA most limiting accident scenarios were determined to be a Steam Generator Tube Rupture and Fire Requiring Control Room Evacuation.

[DCPD E-Plan Table 5-1](#) specifies the minimum staffing requirements for the DCPD on-shift staff, defines the positions initially responsible for satisfying key ERO functions, and specifies positions that will augment the on-shift staff.

In support of this LAR, the Post Shutdown OSA was conducted using the guidance of NEI 10-05 and a summary of the results is provided in [Section 5.3.1](#).

4.3 DCPD Augmented Emergency Response Organization Staffing

The DCPD E-Plan defines four classes of emergency events: Notification of Unusual Event (UE), Alert, Site Area Emergency, and General Emergency (GE). Because on-shift personnel can normally address an emergency response to UEs without additional support, staff augmentation may not be activated for an UE declaration. The Shift Manager maintains responsibility during UEs, unless the TSC or EOF have been activated. An Alert or higher emergency declaration results in staffing of the EOF, TSC, OSC, and JIC. Overall responsibility for the event is assumed by the Emergency

Director in the EOF when the EOF is declared operational. When the ERO is activated, notification is sent to those required to respond to their assigned ERF.

DCPP E-Plan Section 5, "Organizational Control of Emergencies," and 6.1, "Activation of the Emergency Response Organization," describe how the normal plant operating organization transitions into an ERO to effectively deal with any incident at DCPP. The DCPP On-site Emergency Organization is described in DCPP E-Plan Section 5.3, "Diablo Canyon On-Shift Emergency Response Organization."

The DCPP overall command structure is shown in DCPP E-Plan, Figure 5-1. Staffing for the Emergency On-site Organization is shown in DCPP E-Plan, Figures 5-2 and 5-3 (TSC and OSC). Staffing for the Emergency Off-site Organization is shown in DCPP E-Plan, Figure 5-4 (EOF) and staffing for the Emergency Public Information Organization is shown in DCPP E-Plan, Figure 5-5 (JIC).

All or portions of these organizations are notified depending upon the emergency classification. Elements of the emergency response plan are activated subsequent to an emergency declaration by the Shift Manager; designated company personnel are notified and will report to designated locations. The emergency response actions of the personnel already present are performed on a priority basis depending on the emergency conditions and the immediate need that those conditions dictate, as determined by the on-shift operations crew.

Plans and procedures have been put into place to ensure the timely activation of ERFs. In the permanently shutdown and defueled condition, DCPP will maintain ERO teams, with one complete team being on duty. When the Shift Supervisor (CFH) directs the activation of the ERO callout system, all ERO members are notified to facilitate adequate coverage of ERO positions at their designated ERF. DCPP requires members to act promptly in reporting to their assigned ERF, even when not on duty. During duty periods, the procedure further requires that team members respond within the committed response time and that they remain fit for duty throughout their duty assignment. Individuals are trained to respond directly to their ERF even if they are not on duty. Excess personnel that respond may be assigned support responsibilities or be designated as a relief shift. This conservative policy ensures timely activation since some off-duty personnel may respond sooner than the on-duty personnel. The proposed revisions to the DCPP E-Plan will not change these requirements. It will continue to be a management expectation that all qualified individuals for each position respond and report to their respective ERF as quickly as possible. EP procedures identify ERO positions assigned to each facility and the minimum staffing required before each facility can be declared operational and is available to perform its designed functions.

DCPP E-Plan, Table 5-1 and Figures 5-2 through 5-5 identify the personnel required to staff and activate the TSC, OSC, EOF, and the JIC. The mobilization scheme ensures

that specific technical disciplines identified by Table B-1 of NUREG-0654 can be augmented within appropriate time frames.

5 TECHNICAL EVALUATION

5.1 Accident Analysis

Chapter 15 of the DCPD Updated Final Safety Analysis Report (UFSAR) describes safety analyses for postulated design basis accidents (DBAs) under which DCPD is licensed. Upon docketing of the certifications required by 10 CFR 50.82(a)(1)(i) and (ii), the 10 CFR 50 licenses for DCPD will no longer authorize operation of the reactors or emplacement or retention of fuel into the reactor vessels, as specified in 10 CFR 50.82(a)(2). Therefore, most of the accident scenarios postulated in the UFSAR will no longer be applicable once DCPD is in the permanently shut down and defueled condition.

The postulated DBA that will remain applicable to DCPD in its permanently shut down and defueled condition is the FHA in the fuel handling building, where the SFPs are located. UFSAR Chapter 15 will be revised to eliminate the DBAs that will not be applicable in the permanently shut down and defueled condition.

In the permanently shut down and defueled condition, DCPD will be required to respond to events that involve the loss of SFP cooling and/or water inventory, or external events (e.g., fire, flooding, earthquake, high winds, or hostile actions) that would lead to a loss of SFP cooling and/or water inventory. These strategies will be in place for the protection of the SFP. The strategies will no longer address restoring core cooling and containment since they are not applicable in the permanently shut down and defueled condition.

5.2 Functional Area Technical Evaluation

The following provides evaluation of the changes to the Major Functional Areas found in Table B-1 of NUREG-0654. The analysis addressed both on-shift and augmented ERO for each function. The current [DCPD E-Plan, Table 5-1](#) lists the following major functional areas:

- Plant Operations and Assessment of Operational Aspects
- Emergency Direction and Control
- Notification and Communication
- Radiological Assessment
- Plant System Engineering, Repair, and Corrective Actions
- In-Plant Protective Actions
- Firefighting
- First Aid and Rescue Operations
- Site Access Control and Accountability

5.2.1 Major Functional Area: Plant Operations and Assessment of Operational Aspects ON-SHIFT

Current Requirements

The DCPPE-Plan currently identifies the following 11 on-shift staffing personnel for plant operations and assessment of operational aspects as follows:

- Two (2) Unit Shift Supervisors (Senior Reactor Operator [SRO])
- Four (4) Control Room Operators (Reactor Operator [RO])
- Five (5) Non-Licensed Operators (NO)

Proposed Change

The proposed on-shift staff for plant operations and assessment of operational aspects will consist of five (5) personnel as follows:

- One (1) Shift Supervisor (qualified as a CFH)
- One (1) CFH
- Three (3) NCOs (one per Unit and one rover)

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The proposed change eliminates the following positions:

- Unit Shift Supervisors (SROs)
- Control Room Operators (ROs)
- Non-Licensed Operators (NOs)

Analysis

Plant operations shift staffing, as implemented previously, was based on a philosophy that provided defense-in-depth for an operating nuclear power plant. Because of the reduced number of possible events requiring mitigating actions and the limited number of actions to be performed by the Control Room positions for a permanently shut down and defueled condition, the monitoring and control will be limited to the operation of SFP support systems.

The requirement for licensed ROs and SROs is eliminated. Per current Technical Specifications, the minimum shift crew composition requires ROs and SROs who are licensed by the NRC. The Unit Shift Supervisors at DCPPE fulfill the requirements for the SROs, and the Control Room Operator fulfills the requirement for the RO. Under the DCPPE-Plan, the Unit Shift Supervisors, Control Room Operators, and Non-Licensed Operators support the Plant Operations, Safe Shutdown, and Assessment of Operational Aspects. Consistent with planned changes to the DCPPE Technical Specifications that will revise the minimum shift staffing requirements at DCPPE (i.e., the

Permanently Defueled Technical Specification LAR, [Reference 8.4](#)), the positions associated with the SRO and RO will be fulfilled by individuals qualified as CFHs and NCOs. Because of the reduced number of possible events requiring mitigating actions in the permanently defueled condition and the limited number of actions to be performed by the Control Room positions in a permanently defueled condition, the Shift Supervisor (CFH), CFH, and NCO positions would provide the resources needed.

The requirement for Non-Licensed Operators is being eliminated. A Non-Licensed Operator supports reactor and plant operations with duties that include plant equipment manipulation as well as directly monitoring plant equipment performance. Under the DCPD E-Plan, the Non-Licensed Operator supports Plant Operations, Safe Shutdown, and Assessment of Operational Aspects. Because of the reduced number of possible events requiring mitigating actions in the permanently defueled condition and the limited number of actions to be performed by the on-shift staff positions in a permanently defueled condition, the NCO position would fulfill this task.

With the plant in a permanently shut down and defueled condition, the operations staff will only have to respond to events regarding loss of SFP cooling and/or water inventory or external events that could lead to a challenge to maintaining SFP cooling and/or water inventory. The Control Room continues to have indications, alarms, and controls for SFP parameters.

The Post-Shutdown OSA ([Section 5.3.1](#)) validated that in a permanently shut down and defueled condition, with the postulated accidents that would be applicable to that condition, the following on-shift complement would be able to perform all required DCPD E-Plan actions in a timely manner and that there are no identified collateral duties that would prevent the timely performance of emergency plan functions:

- One (1) Shift Supervisor (CFH)
- One (1) CFH
- Three (3) NCOs

Title changes for Licensed personnel and Non-Licensed Operators to CFHs and NCOs, are consistent with proposed changes to the DCPD Technical Specifications (i.e., the Permanently Defueled Technical Specification LAR) that will revise the minimum shift staffing requirements in the DCPD Technical Specifications by replacing references to licensed and non-licensed operators with references to CFHs and NCOs.

The term NCO is used to differentiate from CFH. CFHs will supervise fuel handling operations. The Shift Supervisor will be qualified as a CFH, but requires additional qualifications for Emergency Director responsibilities beyond the CFH training. NCOs will perform duties typically associated with those performed by Non-Licensed Operators, such as manipulation and monitoring of plant equipment.

The NCO Training Program will be developed in accordance with 10 CFR 50.120 using a systematic approach to training. The NCO position combines the post-shutdown duties of the Licensed (Control Room) Operator and the Non-Licensed Operator.

The NCO Training Program will include training on applicable aspects of the DCCP E-Plan related to NCO duties. The training requirements will include training in theory and systems topics, administrative procedures, off-normal and transient procedures/mitigation strategies, and fuel handling platform operations. The NCO Training Program will be designed with an emphasis on systems/processes important to maintaining SFP cooling and monitoring and controlling SFP parameters, such as SFP water level and temperature. Consequently, the NCOs will be trained on pertinent Control Room indications and controls that will be monitored and operated to maintain SFP cooling and SFP water level, in addition to plant radiological conditions.

Most of the required training for the NCO position will already have been completed by the Licensed (Control Room) Operators because they have previously been trained and qualified as both Licensed (Control Room) and Non-Licensed Operators to support power operations. The current Non-Licensed Operators have been trained and qualified as non-licensed operators only. Therefore, it is expected they will require additional training to address skill and knowledge gaps related to Control Room operations.

The proposed level of the on-shift staffing continues to meet the planning standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR 50, commensurate with the reduced spectrum of credible accidents in the permanently defueled condition, and that DCCP retains the ability to promptly implement the SFP mitigation actions.

AUGMENTED ERO

Upon activation of the ERO, the Operations Advisor (Full Augmentation Staff 60-minute responder) reports to the Control Room to relieve the Shift Supervisor (CFH) of plant response oversight responsibilities. This position will change to a Minimum Staff position. Upon TSC staffing, the Operations Advisor transitions to the TSC to provide general operational advice and assistance.

5.2.2 Major Functional Area: Emergency Direction and Control

Major Tasks: Command and Control/Emergency Operations

ON-SHIFT

There are no changes to the on-site performance of this function, only a renaming of the Shift Manager to the Shift Supervisor (CFH). The Shift Supervisor (CFH) assumes the responsibility as the Shift Emergency Director and implements the E-Plan, and activates the ERO as appropriate. The Shift Emergency Director is relieved of Command and Control to either the TSC or EOF as soon as possible after activation of either facility.

AUGMENTED ERO

Current Requirements

Upon activation of the ERO, the Site Emergency Coordinator in the TSC directs and supervises the On-site ERO. The On-site ERO reports to the Emergency Director in the EOF who has overall command authority for ERO actions. Prior to the Emergency Director assuming their position at the EOF, the Site Emergency Coordinator is responsible for implementing the Emergency Director Non-Delegable functions, including Notifications and Protective Action Recommendation (PAR) decision making. The Site Emergency Coordinator would transfer the Non-Delegable functions to the Emergency Director upon EOF Activation.

Proposed Change

The [DCPP E-Plan, Sections 5.6.1](#) and [5.10](#) will be modified as follows:

The TSC will no longer perform state and local Notifications and PAR decision making. These functions will be directly transferred to the EOF under the control of the Emergency Director.

Analysis

Both the On-site and Off-site ERO are 90-minute responders, and both facilities can assume command and control from the Shift Supervisor (CFH)/Shift Emergency Director. All non-delegable functions are still maintained with clear definition of responsibility. Following the Command and Control turnover, the Emergency Director shall have overall Command and Control of the Emergency Response. Note that the Site Emergency Coordinator continues to take responsibility for the on-site Classification and Emergency Exposure Controls Non-Delegable functions prior to the Emergency Director assuming their position at the EOF.

5.2.3 Major Functional Area: Notification and Communication

Major Tasks: Notify licensee, state, local, and federal personnel and maintain communications.

ON-SHIFT

Current Requirements

The Shift Phone Talkers perform the function of on-shift notification/communication.

Proposed Change

Replace the Shift Phone Talkers with a CFH or NCO.

Analysis

The regulations in Section IV.D.3 of Appendix E to 10 CFR 50 require that DCPD have the capability to notify responsible State and local government agencies within 15 minutes after declaration of an emergency. The regulations in 10 CFR 50.72(a)(3) require that DCPD notify the NRC immediately after notification of the appropriate State or local agencies and not later than 60 minutes after the time DCPD declares one of the emergency classes. Subsequent notifications are made should the event escalate and for informational updates.

The resource commitment to support the communication function is not full time, so there is time to support performance of collateral duties until staff augmentation can occur. The on-shift communicators have advanced communications capabilities available such as the private network exchange. Communications with the NRC take place over dedicated telephone lines provided for and maintained by the NRC ENS. For purposes of the analysis of proposed post-shutdown on-shift staffing, NRC notifications were treated as a continuous action in accordance with 10 CFR 50.72(c)(3), meaning that once the initial NRC communications are established, it was assumed that the NRC will request an open line to be continuously maintained with the NRC Operations Center. The use of dedicated phone circuits and headsets enables these notifications to be performed by either an on-shift CFH or NCO who performs the State and local notifications.

Currently, the Shift Manager initially approves the content of the communication with the State and Federal agencies until relieved of this function by the TSC or EOF. The DCPD E-Plan requirement is to activate the EOF within approximately 90 minutes. The EOF assumes the communication responsibility concurrent with activation. Therefore, the current communication protocol may remain within the Control Room for the first 90 minutes, regardless of the presence of any prior ERO augmentation.

The Post-Shutdown OSA validated that in a permanently defueled condition, the CFH or NCO can perform this required E-Plan action in a timely manner and that there are no collateral duties identified that would prevent the timely performance of this E-Plan function.

The proposed level of the on-shift staffing continues to meet the planning standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR 50, commensurate with the reduced spectrum of credible accidents in the permanently defueled condition, and that DCPD retains the ability to promptly implement the SFP mitigation actions.

AUGMENTED ERO

Current Requirements

DCPD staffs the following positions to support the Notification and Communications function in the TSC:

- Agency/ENS Communicator (Minimum Staff 90-minute responder)
- Communications Advisor (Minimum Staff 90-minute responder)
- Operations Communicator (Full Augmentation Staff 90-minute responder)

The following positions are staffed by the on-site ERO to support Notification and Communications in the OSC:

- Team Coordinator (Full Augmentation Staff 90-minute responder)

The following positions are staffed by the off-site ERO to support Notification and Communications in the EOF:

- Communications Coordinator (Minimum Staff 90-minute responder)
- Offsite Communicator (Minimum Staff 90-minute responder)
- HPN Communicator (Full Augmentation Staff 90-minute responder)
- Engineering Liaisons (Full Augmentation Staff 90-minute responder)
- Advisor to the County (Full Augmentation Staff 90-minute responder)
- Government Relations Coordinator (Full Augmentation Staff 90-minute responder)
- General Office Technical Liaison (Full Augmentation Staff 90-minute responder)

Proposed Change

The following positions in the TSC will be eliminated:

- Communications Advisor
- Operations Communicator

The following position in the OSC will be eliminated:

- Team Coordinator

The following positions in the EOF will be eliminated:

- HPN Communicator
- One (1) of the two (2) Engineering Liaisons
- Offsite Communicator

The following position will be removed from the DCCP E-Plan and be controlled in EIPs as Full Augmentation Staff:

- General Office Technical Liaison

The following positions will be transferred from Full Augmentation to Minimum Staff positions:

- Government Relations Coordinator
- Advisor to the County
- Remaining one (1) Engineering Liaison

Analysis

With the permanent cessation of operations and the permanent removal of the SNF from the reactor vessels at DCCP, most of the accident scenarios postulated for an operating power reactor are no longer possible. As such, the number and complexity of activities required for the safe storage of SNF is reduced, as compared to an operating plant. The set of plant equipment involved in this permanently defueled condition is also greatly reduced, which also reduces the spectrum of mitigation activities for an emergency.

Communications Advisor (TSC):

The main functions of the Communications Advisor are to oversee the TSC communications staff and maintain communications with the Control Room. Due to the reduced scope of information required to respond to an issue related to the management of an event in the SFPs, the dedicated staffing of the Communications Advisor position is not required. The Operations Advisor can obtain the required information directly from the Shift Supervisor (CFH). The assessment and disposition of specific responsibilities and tasks for the Communications Advisor is addressed in [Attachment 4](#) of this document. It is concluded that all the Communications Advisor essential responsibilities and tasks will be eliminated or reassigned, and as such, the Communications Advisor position can be eliminated without impacting DCCP's ability to respond to the spectrum of credible accidents and operational events for a permanently shut down and defueled reactor or cause undue impact to the performance of the DCCP E-Plan.

Operations Communicator (TSC):

The main function of the Operations Communicator is to apprise the TSC of overall plant conditions and significant changes to system and equipment status. Due to the reduced scope of information required to respond to an issue related to the management of an event in the SFPs, the dedicated staffing of the Operations Communicator position is not required. The Operations Advisor can obtain the required information directly from the Shift Supervisor (CFH). The assessment and disposition of specific responsibilities and tasks for the Operations Communicator is addressed in [Attachment 4](#) of this document. It is concluded that all the Operations Communicator essential responsibilities and tasks will be eliminated, and as such,

the Operations Communicator position can be eliminated without impacting DCP's ability to respond to the spectrum of credible accidents and operational events for a permanently shut down and defueled reactor or cause undue impact to the performance of the DCP E-Plan.

Team Coordinator (OSC):

The main functions of the Team Coordinator are to relay requests from the Control Room and TSC for dispatching of the OSC teams, and apprise the TSC, OSC, and Control Room of the status of OSC repair team activities. Due to the reduced scope of information required to respond to an issue related to the management of an event in the SFPs, dedicated staffing of the Team Coordinator is not required.

The function will be maintained with communication from the OSC Director to the OSC teams. The assessment and disposition of specific responsibilities and tasks for the Team Coordinator is addressed in [Attachment 4](#) of this document. It is concluded that all the Team Coordinator essential responsibilities and tasks will be eliminated or reassigned. As such, the Team Coordinator position can be eliminated without impacting DCP's ability to respond to the spectrum of credible accidents and operational events for a permanently shut down and defueled reactor or cause impact to the performance of the DCP E-Plan.

HPN Communicator (EOF):

The HPN Communicator is tasked with providing updates to the NRC on radiological concerns. With the source term maintained in the SFPs, there are fewer release paths, reducing the scope of information related to a DCP event. Due to the reduced scope of information, the HPN Communicator functions in the EOF will be reassigned to the Communications Coordinator.

Engineering Liaisons (EOF):

The main function of the EOF Engineering Liaisons is to provide the EOF with updates on plant status and provide technical support. Due to the reduced scope of information required to respond to an issue related to the management of an event in the SFPs, the dedicated staffing of two (2) EOF Engineering Liaison personnel can be reduced to one (1).

This function will be maintained by the remaining EOF Engineering Liaison in the EOF as Minimum Staff. As such, one of the two EOF Engineering Liaison positions can be eliminated without impacting DCP's ability to respond to the spectrum of credible accidents and operational events for a permanently shut down and defueled reactor, or cause undue impact to the performance of the DCP E-Plan.

Offsite Communicator and General Office Technical Liaison (EOF):

The Offsite Communicator and General Office Technical Liaison EOF positions provide the interface between DCP personnel and governmental agencies and PG&E Corporate entities. Due to the reduced scope of information required to

respond to an issue related to the management of an event in the SFPs, dedicated staffing of each of these positions is not required.

The assessment and disposition of specific responsibilities and tasks for the Offsite Communicator are addressed in [Attachment 4](#) of this document. It is concluded that this position either has repeated tasks or tasks that can be reassigned to other positions that will be Minimum Staff (i.e., Communications Coordinator). As such, the Offsite Communicator can be removed from the DCPPE-Plan without impacting DCPPE's ability to respond to the spectrum of credible accidents and operational events for a permanently shut down and defueled reactor.

The General Office Technical Liaison Full Augmentation position is proposed to be removed from the DCPPE-Plan and will be managed and controlled by EIPs. The position will still be assigned to ERO teams, be expected to maintain Fitness-for-Duty during assigned duty weeks, and be required to respond to the EOF at an Alert or higher classification. This position performs support functions that are not required for staffing of the EOF.

Implementation of these proposed changes will not impact the ability of the EOF to provide the necessary interface with governmental agencies reporting to the EOF and will not cause undue impact to the performance of the DCPPE-Plan.

The proposed changes continue to ensure that the DCPPE-Plan can continue to maintain communication requirements of 10 CFR 50, Appendix E IV.D.3 and 10 CFR 50.72(a)(3).

[5.2.4 Major Functional Area: Radiological Assessment](#)

Each Major Task is addressed in sections a through e below.

a. Major Tasks: Off-site Dose Assessment

ON-SHIFT

Current Requirements

A Work Control Shift Foreman is assigned as the on-shift Dose Assessor.

Proposed Change

On-shift dose assessment will be designated as a collateral duty. The function will be assigned to available on-shift personnel.

Analysis

The purpose of conducting the off-site dose assessment is to review radiological conditions using data from available instrumentation, assess the impact of changing radiological conditions on emergency classification, assist in accident assessments based upon those changing radiological conditions, and recommend appropriate off-site protective measures.

This function is currently performed by the on-shift staff and augmented by TSC and EOF personnel upon activation. EOF personnel assume the off-site dose assessment function once the EOF is activated.

RP Technicians and CFHs will be trained to perform dose assessment on shift. The OSA evaluation of a loss of SFP level resulting in release requiring PARs employs the CFH to perform the dose assessment function. The use of the CFH to support the on-shift dose assessment is appropriate for a permanently shut down and defueled condition since many of the potential initiating conditions that would lead to an emergency declaration are no longer credible. The set of plant equipment involved in this condition is also greatly reduced, which also reduces the need for assessments and mitigation activities in the Control Room for an emergency.

Implementation of these proposed changes will not impact the ability of on-shift personnel to provide timely and accurate dose assessment and will not cause undue impact to the performance of the DCPPE-Plan.

AUGMENTED ERO

Current Requirements

The Radiological Data Processor is a Minimum Staff 90-minute responder position in the TSC.

The Radiological Manager and Dose Assessor in the EOF are Minimum Staff 90-minute responder positions. The following positions are Full Augmentation and are not necessary to support minimum staffing of the EOF:

- Dose Assessment Coordinator
- UDAC Meteorologist

Proposed Change

The Radiological Data Processor and Dose Assessment Coordinator positions will be eliminated. The UDAC Meteorologist Full Augmentation position will be removed from the DCPPE-Plan and be controlled in EIPs.

Analysis

With the source term maintained in the SFPs, there are fewer release paths, reducing the scope of information related to a DCCP event. Due to the reduced scope of information, the dedicated staffing of the Radiological Data Processor and Dose Assessment Coordinator positions is not required.

The Radiological Data Processor position is tasked with enabling RP devices and trending radiation levels at the plant. A review of major tasks of each position is provided in [Attachment 4](#), and the TSC Radiological Advisor will assume any essential tasks conducted by the Radiological Data Processor position.

The assessment and disposition of specific responsibilities and tasks for the Dose Assessment Coordinator are addressed in [Attachment 4](#) of this document. It is concluded that this position has tasks that can be reassigned to the Radiological Manager position that is Minimum Staff. As such, the Dose Assessment Coordinator can be removed from the DCCP E-Plan without impacting DCCP's ability to respond to the spectrum of credible accidents and operational events for a permanently shut down and defueled reactor.

The UDAC Meteorologist is currently a Full Augmentation position not required to support facility activation. The UDAC Meteorologist position performs support functions and can be removed from the DCCP E-Plan and will be managed and controlled by EIPs. The position will still be assigned to ERO teams, be expected to maintain Fitness-for-Duty during assigned duty weeks, and is required to respond to the EOF at an Alert or higher classification.

Implementation of these proposed changes will not impact the ability of the augmented staff to provide timely and accurate dose assessment and will not cause undue impact to the performance of the DCCP E-Plan.

b. Off-site Surveys

ON-SHIFT

There are no requirements for staffing this position for the on-shift staffing.

AUGMENTED ERO

Current Requirements

The following positions are Full Augmentation 90-minute responder staffing in the EOF:

- Two (2) off-site FMTs, each team consisting of a Leader (RP Technician) and Driver

- FMT Coordinator
- FMT Communicator
- Offsite Emergency Lab Analyst

Proposed Change

The FMT Coordinator position will be transferred from Full Augmentation to a Minimum Staff position. The FMT Communicator position will be eliminated. The Offsite Emergency Lab Analyst position will be removed from the DCCP E-Plan and be controlled in EPIPs.

Analysis

With the source term maintained in the SFPs, there are fewer release paths, reducing the scope of information related to a DCCP event. Due to the reduced scope of information, the combination of dedicated staffing of the above positions is not required.

The assessment and disposition of specific responsibilities and tasks for the FMT Communicator are addressed in [Attachment 4](#) of this document. It is concluded that the FMT Communicator has tasks that can be reassigned to the FMT Coordinator position that will be Minimum Staff. As such, the FMT Communicator can be removed from the DCCP E-Plan without impacting DCCP's ability to respond to the spectrum of credible accidents and operational events for a permanently shut down and defueled reactor.

The Offsite Emergency Lab Analyst is currently a Full Augmentation position not required to support facility activation. The Offsite Emergency Lab Analyst position performs support functions and can be removed from the DCCP E-Plan and will be managed and controlled by EPIPs. The position will still be assigned to ERO teams, be expected to maintain Fitness-for-Duty during assigned duty weeks, and is required to respond to the EOF at an Alert or higher classification.

Implementation of these proposed changes will not impact the ability of the augmented staff to provide timely and accurate dose assessment and will not cause undue impact to the performance of the DCCP E-Plan.

c. On-site (out-of-plant) Surveys

ON-SHIFT

There are no requirements for staffing this position for the on-shift staffing.

AUGMENTED ERO

Current Requirements

One (1) on-site FMT, consisting of a Leader (RP Technician) and Driver in the OSC, are Full Augmentation Staff 60-minute responder positions.

Proposed Change

DCPP proposes to eliminate the one (1) on-site FMT.

Analysis

The scope of RP surveys is greatly reduced with the permanent cessation of operation of the reactors and the source term confined to the SFPs. One (1) RP Technician will be adequate to perform both the on-site (out-of-plant) and in-plant surveys. However, if conditions warrant, additional personnel are available to be called in by the OSC Director.

d. In-Plant Surveys

ON-SHIFT

There are no changes proposed for this function. DCPP will continue to have the same resources (i.e., two (2) RP Technicians) available to provide initial and continuing information for accident assessment throughout the course of an event, including plant parameter display systems and Area and Process Radiation Monitoring Systems. The current level of the on-shift staffing continues to meet the planning standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR 50, commensurate with the reduced spectrum of credible accidents in the permanently defueled condition, and that DCPP retains the ability to promptly implement the SFP mitigation actions.

AUGMENTED ERO

Current Requirements

DCPP augments the two (2) minimum on-shift RP Technicians with two (2) RP Technician Full Augmentation 60-minute responders and two (2) RP Technician Full Augmentation 90-minute responders.

Proposed Change

DCPP proposes to eliminate both of the RP Technician 90-minute augmented responders and one (1) of the RP Technician 60-minute augmented responders. The remaining one (1) RP Technician 60-minute augmented responder will be added as Minimum Staff.

Analysis

The scope of RP surveys is greatly reduced with the permanent cessation of operation of the reactors and the source term confined to the SFPs. One (1) RP Technician will be adequate to perform the surveys. However, if conditions warrant, additional personnel are available to be called in by the OSC Director.

e. Chemistry

ON-SHIFT

There are no requirements for staffing this position for the on-shift staffing.

AUGMENTED ERO

Current Requirements

The Chemistry Coordinator in the OSC is a Full Augmentation 90-minute responder position. RP Technicians (addressed above) supplement the Chemistry Coordinator depending on the type and extent of the emergency.

Proposed Change

The Chemistry Coordinator position will be eliminated.

Analysis

The need to perform complex chemistry sampling is greatly reduced with the permanent cessation of operation of the reactors and the source term confined to the SFPs. However, if conditions warrant, Chemistry personnel are available to be called in by the OSC Director.

The assessment and disposition of specific responsibilities and tasks for the Chemistry Coordinator are addressed in [Attachment 4](#) of this document. It is concluded that the Chemistry Coordinator tasks can be eliminated or reassigned to the Radiological Advisor position that will be Minimum Staff in the TSC. As such, the Chemistry Coordinator position can be removed from the DCPPE-Plan without impacting DCPPE's ability to respond to the spectrum of credible accidents and operational events for permanently shut down and defueled reactors.

Implementation of these changes do not impact the overall effectiveness to perform the necessary Emergency Planning Functions and will not cause undue impact to the performance of the DCPPE-Plan.

5.2.5 Major Functional Area: Plant System Engineering, Repair, and Corrective Actions

Each Major Task is addressed in sections a and b below.

a. Major Tasks: Technical Support/Accident Analysis

ON-SHIFT

Current Requirements

The current DCPP E-Plan staffs one (1) Work Control Shift Foreman (SRO) on-shift. The Work Control Shift Foreman is required to have a Shift Technical Advisor (STA) qualification.

Proposed Change

DCPP proposes to eliminate the Work Control Shift Foreman and the functional requirement of STA from the on-shift staffing.

Analysis

The emergency planning function of the Work Control Shift Foreman (SRO/STA) is to perform assessments of plant operating concerns, technical support, appropriate corrective actions, analysis of events and their effects, effectiveness of response(s) to emergent conditions, classifications of emergencies, protection of the public, and any other actions related to critical safety functions and plant safety during abnormal and emergency situations. The Work Control Shift Foreman (SRO/STA) also contributes to operations during normal plant conditions. By routine monitoring of equipment and plant operations, the Work Control Shift Foreman (SRO/STA) can focus on preventative actions in order to mitigate the consequences of an accident. Additionally, the Work Control Shift Foreman (SRO/STA) provides the core/thermal hydraulics function of the E-Plan for the confirmation of adequacy of core cooling, maintenance of coolable core geometry, and to verify that actual plant response to the event is as expected until relieved by the TSC positions upon TSC activation.

Because of the permanent cessation of operations and removal of fuel from the reactor vessels, DCPP proposes to eliminate the Work Control Shift Foreman (SRO/STA) position from the E-Plan, since this condition no longer makes the position necessary for technical and analytical assistance for plant operational concerns during abnormal and emergency situations, analysis of events and their effects, or the on-shift core/thermal hydraulics function of the E-Plan, as described previously. Additionally, consistent with planned changes to the DCPP Technical Specifications that will revise the minimum shift staffing requirements at DCPP (i.e., the Permanently Defueled Technical Specification LAR, [Reference 8.4](#)), the STA will be deleted from the DCPP License and Technical Specifications.

The on-shift technical support function for the remaining accident scenarios associated with the storage of SNF will be assumed by the Control Room personnel. DCP's post-shutdown OSA validated that the on-shift Shift Supervisor (CFH) and CFH can perform any required technical analysis associated with the storage of SNF until augmented by the TSC Engineering Advisor.

The NRC requires that DCP's E-Plan be at a level of effectiveness commensurate with the potential consequences to public health and safety and common defense and security at the DCP site. With the permanent cessation of operations and the permanent removal of the fuel from the DCP reactor vessels, most of the accident scenarios postulated for an operating power reactor are no longer possible. The SNF is stored in the SFP or at the DC ISFSI and will remain on-site until it can be moved off-site for long-term storage or disposal. The reactor, reactor coolant system (RCS), and reactor support systems are no longer in operation and have no function related to the storage of the SNF. Therefore, postulated accidents involving a failure or malfunction of the reactor, RCS, or reactor support systems are no longer applicable. During reactor decommissioning, the principal public safety concerns involve the radiological risks associated with the storage of SNF on-site. The proposed level of on-site operations staff will continue to provide for communication and coordination capabilities with off-site organizations for the level of support required for the remaining DBAs and the prompt implementation of mitigative actions in response to a SFP accident. The Shift Supervisor (CFH) or CFH will maintain the capability to perform the function of on-shift technical analysis for the limited applicable accident scenarios associated with the storage of SNF.

AUGMENTED ERO

Current Requirements

The following positions are staffed by the on-site ERO to support Technical Support/Accident Analysis in the TSC:

- Engineering Advisor (Full Augmentation Staff 90-minute responder)
- Reactor Engineer (Minimum Staff 90-minute responder)
- Mechanical Engineer (Full Augmentation Staff 60-minute responder)
- Electrical Engineer (Full Augmentation Staff 60-minute responder)
- PPC Operator (Full Augmentation Staff 90-minute responder)
- Radiological Advisor (Full Augmentation Staff 90-minute responder)

Proposed Change

PG&E proposes to eliminate the following positions:

- Reactor Engineer (Minimum Staff 90-minute responder)
- Mechanical Engineer (Full Augmentation Staff 60-minute responder)
- Electrical Engineer (Full Augmentation Staff 60-minute responder)

- PPC Operator (Full Augmentation Staff 90-minute responder)

The following positions will be transferred from Full Augmentation to Minimum Staff positions:

- Engineering Advisor
- Radiological Advisor

Analysis

With the permanent cessation of operations and the permanent removal of the SNF from the reactor vessels at DCP, most of the accident scenarios postulated for an operating power reactor are no longer possible. As such, the number and complexity of activities required for the safe storage of SNF is reduced, as compared to an operating plant. The set of plant equipment involved in this permanently defueled condition is also greatly reduced, which also reduces the spectrum of mitigation activities for an emergency.

The Engineering function will continue to be maintained by the TSC Engineering Advisor. The TSC Engineering Advisor will be qualified to provide engineering support in response to a FHA in the fuel handling building or an event resulting in damage to the SFP integrity or loss of SFP cooling or inventory.

Elimination of the TSC Reactor Engineer position will have no effect on emergency response in a permanently defueled condition because the position does not assess the condition of SNF in the SFPs during an emergency. The Dose Assessment Program utilized by the Radiological Manager does include in its assessment SNF damage in the SFPs. The TSC Reactor Engineer supports this assessment by providing needed information (age of SNF, location, etc.); however, the information is not specific to the TSC Reactor Engineer qualification and can be provided by the TSC Engineering Advisor. This position can be eliminated without increasing the risk to public health and safety because the major task of evaluating reactor hydraulics is not necessary in a permanently shut down and defueled condition. A review of major tasks of the Reactor Engineer is provided in [Attachment 4](#), and no essential tasks were identified to support Emergency Planning Functions.

The Mechanical and Electrical Engineer positions in the TSC are being eliminated. The TSC Engineers' responsibilities include providing engineering support in response to an accident condition. The Engineering function will continue to be maintained by the TSC Engineering Advisor. The assessment and disposition of specific responsibilities and tasks for the TSC Engineers is addressed in [Attachment 4](#) of this document. It is concluded that all of the TSC Engineers' responsibilities and tasks can be eliminated. As such, the TSC Electrical and Mechanical Engineer positions can be eliminated without impacting DCP's ability to respond to the spectrum of credible accidents and operational events for permanently shut down and defueled reactors. If additional Engineering support is identified as needed at

any time during the response to the Emergency condition, additional engineering support can be obtained through call-outs.

The PPC Operator position in the TSC is being eliminated. The PPC Operator position is tasked with preparing information used in dose assessments. A review of major tasks of the position is provided in [Attachment 4](#), and the TSC Radiological Advisor will assume any essential tasks conducted by the PPC Operator position.

The proposed change to the level of augmented ERO staffing continues to meet the planning standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR 50, commensurate with the reduced spectrum of credible accidents in the permanently defueled condition, and ensures that DCPD retains the ability to promptly implement the SFP mitigation actions.

b. Major Tasks: Repair and Corrective Actions

ON-SHIFT

Current Requirements

There are no requirements for staffing this position for the on-shift staffing.

AUGMENTED ERO

Current Requirements

The following positions are staffed by the on-site ERO to support Repair and Corrective Actions:

- Maintenance Advisor (Full Augmentation Staff 90-minute responder in the TSC)
- OSC Director (Minimum Staff 90-minute responder in the OSC)
- Mechanical Maintenance Coordinator (Full Augmentation Staff 60-minute responder in the OSC)
- Electrical Maintenance Coordinator (Full Augmentation Staff 60-minute responder in the OSC)
- I&C Maintenance Coordinator (Full Augmentation Staff 90-minute responder in the OSC)
- Operations Coordinator (Full Augmentation Staff 90-minute responder in the OSC)
- Site RP Coordinator (Full Augmentation Staff 60-minute responder in the OSC)

Mechanical Maintenance and Electrical/I&C Maintenance supplement the staff depending on the type and extent of the emergency.

Proposed Change

PG&E proposes to eliminate the following positions:

- Maintenance Advisor (Full Augmentation Staff 90-minute responder in the TSC)
- Mechanical Maintenance Coordinator (Full Augmentation Staff 60-minute responder in the OSC)
- Electrical Maintenance Coordinator (Full Augmentation Staff 60-minute responder in the OSC)
- I&C Maintenance Coordinator (Full Augmentation Staff 90-minute responder in the OSC)
- Operations Coordinator (Full Augmentation Staff 90-minute responder in the OSC)
- Site RP Coordinator (Full Augmentation Staff 60-minute responder in the OSC)

Analysis

PG&E proposes to only maintain the OSC Director. The Mechanical Maintenance and Electrical/I&C Maintenance positions will continue to be called-in as needed to support repair and corrective actions. The OSC Director will report to the Operations Advisor in the TSC. If at any time the OSC Director determines that additional support is necessary to accomplish the mission of the OSC, the OSC Director will contact the EOF to arrange for support by additional personnel. A review of major tasks of the eliminated positions is provided in [Attachment 4](#).

DCPP ERO staffing, as required by the DCPP E-Plan, is intended to address the risks to public health and safety inherent in an operating reactor. The risk in the permanently shut down and defueled condition is significantly reduced. Many of the potential initiating conditions that would lead to an emergency declaration will no longer be credible. The set of plant equipment required in the permanently shut down and defueled condition is also greatly reduced, which reduces the assessments and mitigation activities that the OSC must perform. The spectrum of credible accidents and operational events, and the quantity and complexity of activities required for safe storage of SNF is reduced, as compared to an operating power reactor. Restoration of equipment supporting SNF cooling and inventory will be the primary focus of emergency mitigation actions for the TSC/OSC in a permanently shut down and defueled condition.

In the permanently shut down and defueled condition there is no longer any complex automatic control systems in service. The need for dedicated I&C maintenance technicians is not required. If conditions warrant, the OSC Director can call out I&C support as necessary.

The primary events of concern in the immediate post-shutdown and defueled condition will be a FHA in the fuel handling building and a loss of SFP cooling and/or water inventory. Events involving a loss of SFP cooling and/or water inventory can

be addressed by implementation of the SFP inventory makeup strategies, as required under License Condition 2.I "Mitigation Strategy License Condition" and 10 CFR 50.155(b)(2). OSC staff is not relied upon to implement SFP inventory makeup. As such, elimination of the Maintenance Advisor, Site RP Coordinator, Mechanical Maintenance Coordinator, Electrical Maintenance Coordinator, I&C Maintenance Coordinator, and Operations Coordinator positions do not impact the ability of the ERO to perform the required function based on the permanent shutdown and defueled condition of the facility.

The proposed change to the level of ERO staffing continues to meet the planning standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50, commensurate with the reduced spectrum of credible accidents in the permanently defueled condition, and ensures that DCPD retains the ability to promptly implement SFP mitigation actions.

5.2.6 Major Functional Area: In-Plant Protective Actions

ON-SHIFT

There are no proposed changes to this function. DCPD's E-Plan currently has assigned two (2) RP Technicians for this functional area.

AUGMENTED ERO

Current Requirements

DCPD augments the two (2) minimum on-shift RP Technicians with one (1) RP Technician 60-minute Full Augmentation Staff responder and one (1) RP Technician 90-minute Full Augmentation Staff responder.

Proposed Change

DCPD proposes to eliminate the one (1) RP Technician 90-minute Full Augmentation Staff responder.

Analysis

Once the ERO is activated, the two (2) on-shift RP technicians will join the one (1) proposed augmented RP personnel providing a total of three (3) RP personnel to support DCPD E-Plan activities.

In the past, radiological access control was a labor-intensive task. Dedicated RP Technicians were required to check dose margins, training qualifications, and to ensure that workers had read and understood their radiation work permit. However, worker access control is now automated because RP work processes have been computerized. Radiation work permit access control and electronic dosimeter computer systems work

together to provide a fully integrated system, allowing workers to sign-in on their radiation work permit and to self-issue electronic dosimeters. The electronic dosimeter provides the worker with a continuous status of dose received and work area dose rates, and will alarm at preset dose and dose rate alarms. An annual radiation work permit dedicated for E-Plan response will be written and available on the first day of each year which will pre-authorize access for emergency response personnel in accordance with E-Plan implementing procedures. Site personnel will be notified of the radiation work permit via site wide email and shift turnover as part of the annual reminder to review new radiation work permits. No additional training will be necessary as use of radiation work permits is addressed in radiation worker training.

Access control is maintained because the worker must obtain an electronic dosimeter and enter a radiation work permit number into the access control computer system, prior to being allowed access into the radiologically controlled area (RCA). Additionally, personnel are required and trained to self-monitor for radioactive contamination whenever they exit the RCA. NUREG-0654, Table B-1 indicates that protective action (in-plant) tasks may be performed by qualified shift personnel assigned other emergency response functions/tasks. DCPD relies on the availability of computer systems, electronic dosimeters, and enhanced processes to relieve RP Technicians of access control, personnel monitoring, and dosimetry tasks; thereby, freeing the RP Technician to cover any vital response activities.

For a permanently shut down and defueled condition, the evaluated DBAs are limited to the SFP area. Because entry is expected to be limited to those areas where maintenance necessary to maintain SFP cooling is required and the areas potentially affected by an accident involving the SFP are limited, there is a significant decrease in the areas potentially requiring RP coverage in a permanently shut down and defueled condition. Multiple repair teams can be covered by the on-shift RP personnel. If RP coverage is not provided (for entry into areas with low radiological risk or known radiological status), worker protection is still ensured since emergency workers are required to wear electronic dosimeters (which will alarm at preset dose and dose rate set points) and because of the installed area radiation monitors that alarm locally and remotely at preset dose rates located throughout the plant.

Therefore, three (3) RP Technicians will be capable of providing adequate protective actions to support plant activities in the permanently shut down and defueled conditions. The proposed change to the level of on-shift staffing continues to meet the planning standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR 50, commensurate with the reduced spectrum of credible accidents in the permanently defueled condition, and ensures that DCPD retains the ability to promptly implement the SFP mitigation actions.

5.2.7 Major Functional Area: Firefighting

ON-SHIFT

There are no proposed changes to this function. DCP's E-Plan staffs five (5) members of the Fire Department per the Fire Protection Plan.

5.2.8 Major Functional Area: First Aid and Rescue Operations

ON-SHIFT

There are no proposed changes to this function. The DCP E-Plan will continue to staff this function as a collateral duty. This applies to the on-shift staff only.

5.2.9 Major Functional Area: Site Access Control and Accountability

Major Task: Security and Accountability

ON-SHIFT

There are no changes for this function. The current DCP E-Plan states the on-shift security staff will perform the security and accountability function, reporting to the Shift Emergency Director (Shift Supervisor (CFH)), until relieved by the Security Advisor in the TSC.

AUGMENTED ERO

Current Requirements

The Security Advisor is a Full Augmentation 90-minute responder position in the TSC. The Security Liaison is a Full Augmentation 90-minute responder position in the EOF.

Proposed Change

The TSC Security Advisor will be designated as a Minimum Staff, 90-minute responder. The EOF Security Liaison position will be eliminated.

Analysis

The TSC Security Advisor will be designated as a minimum staffing to support the Site Emergency Coordinator in establishing Accountability and Site Evacuation, and responding to security or hostile-action based events.

The EOF Security Liaison provides backup to the TSC Security Advisor and only performs support functions and is not required to support activation of the EOF. Therefore, the EOF Security Liaison Full Augmentation position is proposed to be eliminated.

Implementation of these changes do not impact the overall effectiveness to perform the necessary Emergency Planning Functions and will not cause undue impact to the performance of the DCP E-Plan.

5.3 DCP E-Plan Emergency Plan ERO Changes – ERF Analysis

5.3.1 On-Shift Staffing – Control Room

The guidance for licensee minimum staffing for nuclear power plants regulated by the NRC is documented in NUREG-0654, Table B-1 ([Reference 8.3](#)).

As described in [DCP E-Plan, Section 7.1.1](#), the Control Room is the centralized on-site location from which DCP's plant systems necessary to support the SFP operation can be operated. The Control Room is equipped with the instrumentation to supply detailed information on the plant systems and is continuously staffed with qualified operators. The Control Room is the first on-site facility to become involved with the response to emergency events. Control Room personnel must evaluate and effect control over the emergency and initiate activities necessary for coping with the emergency and initiate activities necessary for coping with the emergency until such time that support centers can be activated.

The proposed on-shift staffing changes were evaluated using the Functional Area Analysis of the NUREG-0654 Table B-1 Functions. With the permanent cessation of operations and the permanent removal of the fuel from the reactor vessels at DCP, most of the accident scenarios postulated for an operating power reactor are no longer possible. The irradiated fuel is stored in the SFPs or at the ISFSI, and will remain on-site until it can be moved off-site for long-term storage or disposal. The reactor, RCS, and reactor support systems are no longer in operation and have no function related to the storage of the irradiated fuel. Therefore, postulated accidents involving a failure or malfunction of the reactor, RCS, or reactor support systems are no longer applicable. During facility decommissioning, the principal public safety concerns involve the radiological risks associated with the storage of SNF on-site. The proposed level of on-site operations staff will continue to provide for communication and coordination capabilities with off-site organizations for the level of support required for the remaining DBAs and the prompt implementation of mitigative actions in response to an SFP accident.

The Functional Analysis in [Attachment 4](#) concluded that the proposed on-shift staffing changes do not impact the capabilities of the on-shift staff to respond to an emergency and continues to comply with the DCP E-Plan, site commitments, and regulations.

On-Shift Staffing Assessment

To support ERO staffing changes following permanent cessation of operations and permanent removal of fuel from the reactor vessels, the Post-Shutdown OSA was

evaluated in conjunction with the postulated accidents previously evaluated using NEI 10-05 methodology (see [Appendix F](#) in [Attachment 3](#)). The Post-Shutdown OSA results validated the following changes to the DCPD on-shift staff.

Current On-Shift Staff

- (1) Shift Manager
- (2) Unit Shift Supervisors
- (4) Control Room Operators
- (5) Non-Licensed Operators
- (2) Shift Phone Talkers
- (2) RP Technicians
- (1) Work Control Shift Foreman
- (5) Fire Department

Total = 22

Post Shutdown On-Shift Staff

- (1) Shift Supervisor (re-named from Shift Manager; qualified as CFH)⁽¹⁾
- (1) CFH⁽¹⁾
- (3) NCOs⁽¹⁾
- (2) RP Technicians
- (5) Fire Department per the DCPD Fire Protection Program⁽²⁾
- Security personnel per the Security Plan

Total = 12

1. *Use of the titles "CFH" and "NCO" will be consistent with NRC approval of changes to the DCPD Operating Licenses that will revise the minimum shift staffing requirements in the DCPD Technical Specifications by replacing references to licensed and non-licensed operators with references to CFHs and NCOs (i.e., Permanently Defueled Technical Specification LAR, [Reference 8.4](#)). NCOs will perform duties typically associated with those performed by current Non-Licensed Operators, such as manipulation and monitoring of plant equipment. NCOs will also be assigned to monitor indications and communications in the Control Room. The NCO position may be filled by a CFH. The Shift Supervisor will also be qualified as a CFH. However, the Shift Supervisor requires additional qualification to perform Emergency Director responsibilities beyond the CFH training.*
2. *Two (2) Fire Department personnel are also assigned First Aid and Rescue responsibility as a collateral duty.*

The Post-Shutdown OSA validated that in a permanently defueled condition one (1) on-shift Shift Supervisor (CFH), one (1) CFH, three (3) NCOs, two (2) RP Technicians, five (5) Fire Department personnel, and security personnel per the Security Plan can perform all required E-Plan actions in a timely manner and there are no collateral duties that would prevent the timely performance of E-Plan functions.

DCPD will ensure a sufficient number of personnel are initially trained to support the on-shift positions prior to implementation of the DCPD PSEP.

Consistent with the methodology of NEI 10-05, the present Emergency Plan OSA evaluated postulated accident scenarios. Chapter 15 of the DCPD UFSAR describes

DBA scenarios that are applicable during plant operations. Upon docketing of the certifications required by 10 CFR 50.82(a)(1), the 10 CFR 50 licenses for DCPD will no longer authorize operation of the reactors or emplacement or retention of fuel into the reactor vessels, as specified in 10 CFR 50.82(a)(2). Therefore, most of the accident scenarios postulated in the UFSAR will no longer be applicable once DCPD is in the permanently defueled condition.

The postulated DBA that will remain applicable to DCPD in its permanently shut down and defueled condition is the FHA in the fuel handling building, where the SFPs are located. UFSAR Chapter 15 will be revised to eliminate the DBAs that will not be applicable in the permanently defueled condition.

The Station Blackout event required under 10 CFR 50.63 is no longer applicable once the certifications required by 10 CFR 50.82(a)(1) and (2) are docketed and DCPD will no longer be licensed to generate nuclear power.

The spectrum of credible accidents and operational events for a permanently shut down and defueled reactor, and the number and complexity of activities required for the safe storage of SNF is reduced, as compared to an operating plant. The primary events of concern in the immediate post-shutdown and defueled condition will be a FHA in the fuel handling building and a loss of SFP cooling and/or water inventory.

During fuel handling activities, there will ordinarily be extra personnel on site to move fuel, in addition to minimum on-shift staff; if a FHA in the fuel handling building were to occur, they would be able to respond to the event ([Reference 8.7](#)). Events involving a loss of SFP cooling and/or water inventory can be addressed by implementation of normal and emergency SFP inventory makeup strategies and mitigating strategies required under license condition 2.I, "Mitigation Strategy License Condition" and 10 CFR 50.155(b)(2). The proposed PSEP minimum on-shift staffing (i.e., Shift Supervisor, CFH, NCOs, RP Technicians, and Fire Department personnel) is able to implement the SFP inventory makeup strategies required under 10 CFR 50.155(b)(2) without preventing the timely performance of their emergency plan functions.

The following scenarios were evaluated for DCPD in the post-shutdown OSA:

- Design Basis Threat: The event evaluated for this analysis assumes a land and/or waterborne threat that is neutralized immediately when inside the protected area fence, no significant damage to equipment or systems that require corrective actions before the ERO is staffed, no radiological release, and no fire that requires firefighting response before the ERO is staffed.
- Fuel Handling Accident: The postulated design basis accident that will remain applicable to DCPD in its permanently shut down and defueled condition is the FHA in the fuel handling building where the SFPs are located.

- Aircraft Probable Threat: Notification is received from the NRC that a probable aircraft threat exists.
- Control Room Fire Requiring Evacuation and Maintain SFP Cooling: A fire occurs requiring the evacuation of the Control Room and actions implemented to control auxiliary saltwater/component cooling water from a remote location.
- Loss of SFP Level Requiring Implementation of Mitigation Strategies: A decrease in SFP level is observed. SFP inventory makeup strategies are employed.
- General Emergency with radioactive release and Protective Action Recommendation (assumed for analysis purposes): This scenario assumes a decrease in SFP level is observed, and a dose that exceeds the Environmental Protection Agency's Protective Action Guidelines beyond the site boundary, and thus necessitates promulgation of a PAR.

5.3.2 Augmented ERO Staff

The DCCP E-Plan identifies Minimum Staff as those ERO members needed to support facility activation. A facility is activated only after it reaches minimum staff required for activation and is available to perform its designed functions.

In the permanently shut down and defueled condition, DCCP will maintain multiple ERO teams, with one complete team being on duty at any given time. When the Shift Supervisor (CFH) directs the activation of the ERO call out system, all ERO members on all teams are notified and are directed to respond to ensure adequate coverage of all ERO positions at all ERFs.

As discussed in [Section 4.3](#) above, DCCP requires members to act promptly in reporting to their assigned ERF, even when not on duty. During duty periods, the procedure further requires that team members respond within the committed response time and that they remain fit for duty throughout their duty assignment. Individuals are trained to respond directly to their ERF even if they are not on duty. Excess personnel that respond may be assigned support responsibilities or be designated as a relief shift. This conservative policy ensures timely activation since some off-duty personnel may respond sooner than the on-duty personnel. The proposed revisions to the E-Plan will not change these requirements. It will continue to be a management expectation that all qualified individuals for each position respond and report to their respective ERF as quickly as possible if available and fit for duty. The DCCP E-Plan and EP procedures identify ERO positions assigned to each facility and the minimum staffing required before each facility can be declared operational and is available to perform its designed functions.

The DCCP E-Plan and EP procedures will continue to assign responsibilities to ERO responders, with the purposes of removing the responsibilities of coordinating with off-site responders and delivering information to the public from the Control Room, allowing operations personnel to focus on returning the plant to a safe condition.

The risk in the permanently defueled condition is significantly reduced. Many of the potential initiating conditions that would lead to an emergency declaration will no longer be credible. The set of plant equipment required in the permanently defueled condition is also greatly reduced, which reduces the assessments and mitigation activities the ERO staff (TSC/OSC/EOF) must perform. Restoration of equipment supporting SNF cooling and SFP inventory will be the primary focus of emergency mitigation actions for the TSC/OSC staff in a permanently shut down and defueled condition. Although ERO activation/response time requirements will be unchanged, the elimination of credible accidents involving an operating reactor provides additional time to plan and execute assessment and mitigation actions.

5.3.3 Technical Support Center

As described in current [DCCP E-Plan, Section 7.1.4](#), the TSC is the on-site location utilized to support the Control Room for on-site assessment and potential recovery programs, and for implementation of emergency actions.

The proposed changes to the DCCP E-Plan do not involve any physical modifications to, or layout/configuration changes, or relocation of the TSC. The TSC is located on the 104' elevation on the west side of the Unit 2 Turbine Building, which is inside the Protected Area, but separate from the Control Room. The TSC is designed to be habitable throughout the course of a DBA, although no credit is taken for the shielding or ventilation features in the DBA post-shutdown.

The proposed changes to the TSC Minimum Staff do not impact the capability for on-site assessment and potential recovery programs. Appropriate assessment and mitigation are well within the capabilities of the proposed TSC staff provided in [Table 5-1](#).

Table 5-1 Emergency Response Organization TSC Minimum Staffing Positions

DCCP Operational ERO Minimum Staff Positions	DCCP Post-Shutdown ERO Minimum Staff Positions
Site Emergency Coordinator	Site Emergency Coordinator
Agency/ENS Communicator	ENS Communicator
Reactor Engineer	Position Eliminated
Communications Advisor	Position Eliminated
Radiological Data Processor	Position Eliminated
N/A	Operations Advisor (added as Minimum Staff)
N/A	Radiological Advisor

DCPP Operational ERO Minimum Staff Positions	DCPP Post-Shutdown ERO Minimum Staff Positions
	<i>(added as Minimum Staff)</i>
N/A	Engineering Advisor <i>(added as Minimum Staff)</i>
N/A	Security Advisor <i>(added as Minimum Staff)</i>

The functional analysis in [Section 5.2](#) provided justification for the elimination of key TSC Minimum Staffing Positions. ERO tasks have been reviewed and tasks for eliminated positions will be transferred appropriately. The analysis of the ERO staff tasks assigned by the DCPP E-Plan is found in [Attachment 4](#) of this document. [Attachment 4](#) evaluates and dispositions each EP task as being reassigned or eliminated and provides justification, as appropriate. It is ascertained from the [Attachment 4](#) assessment, that given the elimination of credible accidents involving an operating reactor, the proposed ERO Minimum Staff can continue to satisfactorily perform their existing DCPP E-Plan responsibilities as well as any transferred responsibilities.

Currently, the TSC has the following ERO Non-Minimum Augmented Staff:

- TSC Director
- Operations Communicator (in the Control Room)
- Radiological Advisor
- Engineering Advisor
- Maintenance Advisor
- Mechanical Engineer
- Electrical Engineer
- PPC Operator
- Security Advisor
- Operations Advisor

As discussed in the Functional Analysis of [Section 5.2](#), DCPP proposes to remove all the TSC Non-Minimum Augmented Staff except for the Radiological Advisor, Engineering Advisor, Security Advisor, and Operations Advisor following permanent shutdown. These positions are being designated as Minimum Staff positions to support the Site Emergency Coordinator.

The present ERO staffing required by the DCPP E-Plan is intended to address the risks to public health and safety inherent in an operating power reactor. The risk in the permanently shut down and defueled condition is significantly reduced. Remaining ERO positions will inherit tasks from eliminated positions (see [Attachment 4](#) of this document), but this does not impact the ability of the TSC to perform its designated mission for the scope of remaining applicable accidents. As such, elimination of the

non-minimum staff positions of TSC Director, Operations Communicator, Maintenance Advisor, Mechanical Engineer, Electrical Engineer, and PPC Operator positions do not impact the ability of the ERO to perform the required functions based on the permanent shutdown and defueled condition of the facility.

The proposed staff of six (6) individuals in the TSC will provide adequate resources to perform the Emergency Classification and site protective measures including managing emergency exposure controls of workers on-site, and performance of site accountability and evacuation. In addition, the TSC is adequately staffed to prioritize and manage site repair and corrective actions activities.

5.3.4 [Operations Support Center](#)

As described in the current [DCPP E-Plan, Section 7.1.5](#), the OSC is the on-site location to where DCPP support personnel report during an emergency and from which they will be dispatched for assignments or tasks in support of emergency operations. The proposed changes to the DCPP E-Plan do not involve any physical modifications to, or layout/configuration changes to the OSC. The OSC is located on the 104' elevation, adjacent to the west side of the Unit 2 Turbine Building and the south end of the TSC.

In the permanently shut down and defueled condition, the primary functions of the OSC will remain dispatching of, and accounting for, Repair and Corrective Action Teams. The OSC Director is responsible for ensuring adequate staffing of the OSC supporting the emergency; working with the TSC through the Site Emergency Coordinator to set priorities for the OSC; and directing the activities of the OSC to support the emergency response.

The proposed staffing to the OSC Minimum Staff does not impact the ability to respond to issues related to maintaining SNF in the SFPs. Appropriate repair and corrective action capability is provided by the OSC Minimum Staff provided in [Table 5-2](#).

Table 5-2 Emergency Response Organization OSC Minimum Staffing Positions

DCPP Operational ERO Minimum Staff Positions	DCPP Post-Shutdown ERO Minimum Staff Positions
OSC Director	OSC Director
N/A	Two (2) RP Technicians (1 for radiological assessment and 1 for in-plant protective actions) <i>(added as Minimum Staff)</i>

The functional analysis in [Section 5.2](#) provided justification for maintaining the existing one (1) OSC Minimum Staffing Position. It is ascertained from the [Attachment 4](#) assessment, that given the elimination of credible accidents involving an operating reactor, the proposed ERO Minimum Staff can continue to satisfactorily perform their existing DCPP E-Plan responsibilities as well as any transferred responsibilities.

Currently, the OSC has the following ERO Non-Minimum Augmented Staff:

- Team Coordinator
- RP Technicians
- Chemistry Coordinator
- Operations Coordinator
- Site RP Coordinator
- Mechanical Maintenance Coordinator
- Electrical Maintenance Coordinator
- I&C Maintenance Coordinator
- Maintenance, RP, Chemistry, and Operations Personnel

As discussed in the Functional Analysis of [Section 5.2](#), DCPD proposes to remove all the OSC Non-Minimum Augmented Staff except for two (2) RP Technicians, following permanent shutdown. DCPD proposes to only maintain the OSC Director position and two (2) RP Technicians. The OSC Director will report to the Operations Advisor in the TSC. If at any time the OSC Director determines that additional support is necessary to accomplish the mission of the OSC, the OSC Director will contact the EOF to arrange for support by calling out additional personnel. ERO tasks have been reviewed and tasks for eliminated positions will be transferred appropriately. The analysis of the ERO staff tasks assigned by the DCPD E-Plan is found in [Attachment 4](#) of this document. The Attachment evaluates and dispositions each EP task as being reassigned or eliminated and provides justification, as appropriate.

DCPD ERO staffing, as required by the DCPD E-Plan, is intended to address the risks to public health and safety inherent in an operating reactor. The risk in the permanently shut down and defueled condition is significantly reduced. Many of the potential initiating conditions that would lead to an emergency declaration will no longer be credible. The set of plant equipment required in the permanently shut down and defueled condition is also greatly reduced, which reduces the assessments and mitigation activities that the OSC must perform. The spectrum of credible accidents and operational events, and the quantity and complexity of activities required for safe storage of SNF is reduced, as compared to an operating power reactor. Restoration of equipment supporting SNF cooling and inventory will be the primary focus of emergency mitigation actions for the TSC/OSC in a permanently shut down and defueled condition. The proposed staffing can respond to the expected repair activities with adequate RP oversight.

The primary events of concern in the immediate post-shutdown and defueled condition will be a FHA in the fuel handling building and a loss of SFP cooling and/or water inventory. During fuel handling activities, site procedures require additional personnel (i.e., RP Technicians) on-site that will, if a FHA in the fuel handling building were to occur, be able to respond to the event. Events involving a loss of SFP cooling and/or water inventory can be addressed by implementation of the SFP inventory makeup strategies, as required under License Condition 2.I, "Mitigation Strategy License

Condition” and 10 CFR 50.155(b)(2). OSC staff is not relied upon to implement SFP inventory makeup.

The proposed change to the level of ERO staffing continues to meet the planning standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50, commensurate with the reduced spectrum of credible accidents in the permanently defueled condition, and ensures that DCPD retains the ability to promptly implement SFP mitigation actions.

5.3.5 Emergency Operations Facility

As described in current [DCPD E-Plan, Section 7.1.6](#), the EOF is the location where the Emergency Director will direct a staff in evaluating and coordinating the overall company activities involved with an emergency. The EOF acts as the interface between the Company/County, and the public.

The EOF is located approximately 11 miles northeast of DCPD. The EOF is shared with the County Emergency Operations Center.

The proposed changes to the DCPD E-Plan do not involve any physical modifications to, or layout/configuration changes to the EOF. The proposed changes to the EOF Minimum Staff do not impact the capability to assess and monitor actual or potential off-site consequences of a radiological emergency. Appropriate assessment and mitigation are well within the capabilities of the proposed EOF minimum staff provided in [Table 5-3](#).

Table 5-3 Emergency Response Organization EOF Minimum Staffing Positions

DCPD Operational ERO Minimum Staff Positions	DCPD Post-Shutdown ERO Minimum Staff Positions
Emergency Director	Emergency Director
Communications Coordinator	Communications Coordinator
Offsite Communicator	Position Eliminated
Radiological Manager	Radiological Manager
Dose Assessor	Dose Assessor
N/A	Off-site FMTs – Four (4) Personnel
N/A	EOF Director <i>(added as Minimum Staff)</i>
N/A	Advisor to the County <i>(added as Minimum Staff)</i>
N/A	FMT Coordinator <i>(added as Minimum Staff)</i>
N/A	Engineering Liaison <i>(added as Minimum Staff)</i>
N/A	Government Relations Coordinator <i>(added as Minimum Staff)</i>

The functional analysis of [Section 5.2](#) justifies that the proposed EOF minimum staff can perform required DCPPE E-Plan functions. The analysis of the ERO staff tasks assigned by the E-Plan is found in [Attachment 4](#) of this document. [Attachment 4](#) evaluates and dispositions each EP task as being reassigned or eliminated and provides justification, as appropriate. It is ascertained from the [Attachment 4](#) assessment, that given the elimination of credible accidents involving an operating reactor, the proposed ERO Minimum Staff can continue to satisfactorily perform their existing DCPPE E-Plan responsibilities as well as any transferred responsibilities.

Currently, the EOF has the following ERO Non-Minimum Augmented Staff:

- EOF Director
- HPN Communicator
- Engineering Liaisons
- Advisor to the County EOC
- Government Relations Coordinator
- General Office Technical Liaison
- Dose Assessment Coordinator
- UDAC Meteorologist
- FMT Coordinator
- Off-site FMTs, each consisting of one (1) leader (RP Technician) and one (1) driver
- On-site FMT, consisting of one (1) leader (RP Technician) and one (1) driver
- FMT Communicator
- Offsite Emergency Lab Analyst
- Security Liaison
- EOF Security

As discussed in the Functional Analysis of [Section 5.2](#), DCPPE proposes to remove all the EOF Non-Minimum Augmented Staff except for one (1) EOF Director, one (1) Advisor to the County, one (1) FMT Coordinator, one (1) Engineering Liaison, four (4) off-site FMT Leaders and Drivers, and one (1) Government Relations Coordinator following permanent shutdown. These positions are being designated as Minimum Staff positions.

The following Full Augmentation positions are proposed to be removed from the DCPPE E-Plan, and managed and controlled by EPIPs: On-site FMT Leaders and Drivers, Offsite Emergency Lab Analyst, UDAC Meteorologist, and General Office Technical Liaison positions. The Offsite Emergency Lab Analyst, UDAC Meteorologist, and General Office Technical Liaison positions will still be assigned to ERO teams, be expected to maintain Fitness-for-Duty during assigned duty weeks, and are required to respond to the EOF at an Alert or higher classification. As shown in [Attachment 4](#), these positions provide support to the Minimum Staff positions that continue to provide

the performance of the DCPP E-Plan Functions. As justified in the Functional Analysis in [Section 5.2](#), the proposed EOF staffing requirements relocation to the EIPs do not impact the capabilities of the EOF staff. The positions can be removed from the DCPP E-Plan and managed and controlled via EIPs without placing an undue burden on the remaining ERO positions in the EOF and without increasing the risk to public health and safety.

[5.3.6 Joint Information Center](#)

As described in [DCPP E-Plan, Section 5.9](#), the JIC is the facility in which media personnel gather to receive information related to the emergency event. The JIC is the location where approved news releases will be provided to the media for dissemination to the public.

The JIC is located approximately 0.25 miles from the EOF. The proposed changes to the DCPP E-Plan do not involve any physical modifications to, or layout/configuration changes to the JIC.

The JIC currently has no Minimum Staffing requirements. Currently, the JIC has the following ERO Non-Minimum Augmented Staff:

- JIC Director
- Public Information Officer
- Company Spokesperson
- News Media Liaison – Corporate
- News Media Liaison – Site
- Technical Advisor – Operations
- Technical Advisor – Health Physics
- News Writer
- Assistant Public Information Officer
- JIC Security

DCPP proposes to maintain only the following JIC Non-Minimum Augmented Staff: one (1) JIC Director, one (1) Public Information Officer, and one (1) Company Spokesperson following permanent shut down. The analysis of the ERO staff tasks assigned by the E-Plan is found in [Attachment 4](#) of this document. [Attachment 4](#) evaluates and dispositions each EP task as being reassigned or eliminated and provides justification, as appropriate.

The Corporate News Media Liaison and Site News Media Liaison Full Augmentation positions are proposed to be removed from the DCPP E-Plan, and managed and controlled by EIPs. The Corporate News Media Liaison and Site News Media Liaison positions will still be assigned to ERO teams, be expected to maintain Fitness-for-Duty during assigned duty weeks, and are required to respond to the JIC at an Alert or higher classification. As shown in [Attachment 4](#), these positions provide support to the

remaining staff positions that continue to provide the performance of the DCCP E-Plan Functions. The proposed JIC staffing requirements relocation to the EIPs do not impact the capabilities of the JIC staff. The positions can be removed from the DCCP E-Plan and managed and controlled via EIPs without placing an undue burden on the remaining ERO positions in the JIC and without increasing the risk to public health and safety.

5.4 Assessment of Staff Changes on Off-Site Emergency Response Organizational Interfaces

The proposed changes to the DCCP E-Plan were evaluated for impacts on the ability of State and local response organizations to effectively implement their Federal Emergency Management Agency (FEMA)-approved Radiological E-Plans.

The following list of additional actions involve support or direct interface with the State of California, are not being revised and will continue to be performed by ERO positions as currently assigned and shown in [Attachment 4](#) and [DCCP E-Plan, Section 5](#).

- Emergency Director – Request assistance as necessary for on-site or off-site radiation monitoring from Federal agencies, either through the County/State Emergency Operations Center once established, or directly.
- Emergency Director – Interface between DCCP/PG&E and Federal/State/local emergency response agencies.
- Emergency Director – Communicate plant status updates and radiological release data to NRC/FEMA, County/State Emergency Operations Centers, PG&E Emergency Operations Center, and JIC personnel.

PG&E concluded there were no interface or coordination impediments identified because of the changes to the DCCP E-Plan.

A preliminary review of the proposed changes have been performed by the California Governor's Office of Emergency Services and County of San Luis Obispo Office of Emergency Services prior to the formal submission of the LAR (see [Attachment 5](#)).

5.5 Validation and Training

To validate the results of the analysis, a drill will be developed and conducted prior to implementation of the changes described within this document. The drill will be conducted to confirm the ability of the post-shutdown ERO to perform the necessary functions of each ERF. The drill will evaluate and validate the ability to accomplish the stated mission of each ERF, and ensure that the planning standard functions are preserved with no degradation in time sensitive activities or in the ability to communicate with off-site response organizations. The drill will also validate that the post-shutdown ERO continues to address the risks to public health and safety and comply with the DCCP E-Plan, site commitments, and applicable regulations. EIPs will be revised to address the permanently shut down and defueled conditions. The

revised procedures will be used to support training of the ERO staff and the conduct of drills described above.

Training and procedures will be developed and in place prior to performing the post-shutdown ERO drill. The drill scenario will include SFP events and will be designed to test the major elements of the DCCP PSEP. Major elements to be tested will include communications and coordination with off-site response organizations, including the JIC. State, Local, and Federal response organizations will be provided the opportunity to participate in or observe the drills. A PG&E supplemental action for scenario elements and communications with off-site agencies is included in [Enclosure 2](#).

In addition, other training drills will be conducted to train post-shutdown site ERO members. These drills may not involve all PG&E ERFs or State/local participation; however, all ERO members will participate in at least one training drill. The post shutdown EP procedures which support the defueled condition will be available in draft form to support the drills. Final implementation of the procedures will occur concurrent with implementation of the DCCP PSEP.

5.6 ERO Change Summary

PG&E completed an evaluation of the proposed reduction in on-shift and ERO staffing and completed a post-shutdown OSA for DCCP to validate the ability of the proposed defueled on-shift staff to respond to an emergency. PG&E further assessed the ability of the ERO augmented staff to respond to an emergency through a Task Analysis.

The proposed ERO staffing changes do not impact the capabilities of the on-shift staffing or augmented response. The ERFs will continue to be activated at an Alert or higher classification. Functional responsibilities of the positions eliminated as a result of the changes described within are being reassigned to remaining positions or eliminated if no longer applicable to the permanently defueled condition. The proposed ERO staffing reductions continue to address the risks to public health and safety, comply with the DCCP E-Plan, site commitments, and regulations.

The proposed changes do not impact the capability to assess and monitor actual or potential off-site consequences of a radiological emergency and the ability to promptly implement SFP mitigation actions. Appropriate assessment and mitigation actions are within the capabilities of the reduced ERO staff.

6 REGULATORY EVALUATION

6.1 Applicable Regulatory Requirements

The specific standards for establishing an on-site emergency organization to respond to emergency events appears in 10 CFR 50.47(b) and 10 CFR Part 50, Appendix E, Section IV.A. Specifically:

- 10 CFR 50.47(b)(1): Primary responsibilities for emergency response by the nuclear facility licensee and by State and local organizations within the Emergency Planning Zones have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.
- 10 CFR 50.47(b)(2): On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available and the interfaces among various on-site response activities and off-site support and response activities are specified.
- 10 CFR Part 50, Appendix E Section IV.A.1: [E-Plans must contain] A description of the normal plant operating organization.
- 10 CFR Part 50, Appendix E Section IV.A.2: [E-Plans must contain] A description of the on-site emergency response organization with a detailed discussion of:
 - authorities, responsibilities, and duties of the individual(s) who will take charge during an emergency;
 - plant staff emergency assignments;
 - authorities, responsibilities, and duties on an on-site emergency coordinator who shall be in charge of the exchange of information with off-site authorities responsible for coordinating and implementing off-site emergency measures.
- 10 CFR Part 50, Appendix E, Section IV.A.9 states that licensees shall perform "... a detailed analysis demonstrating that on-shift personnel assigned emergency plan implementation functions are not assigned responsibilities that would prevent the timely performance of their assigned functions as specified in the emergency plan."

NUREG-0654 ([Reference 8.3](#)), Section II.B, "Onsite Emergency Organization," presents guidance for meeting the above requirements. The guidance describes the on-site emergency organization, including the staffing requirements found in Table B-1, "Minimum Staffing Requirements for NRC Licensees for Nuclear Power Plant Emergencies."

NSIR/DPR-ISG-01, "Interim Staff Guidance - Emergency Planning for Nuclear Power Plants" ([Reference 8.6](#)) provides information relevant to performing the on-shift staffing analysis. The ISG states that NEI 10-05, "Assessment of On-Shift Emergency Response Organization Staffing and Capabilities," is an acceptable methodology for

performing the staffing analysis. The ISG also indicates that the completed staffing analyses are required to be part of the E-Plan and the results documented and submitted to the NRC in accordance with 10 CFR 50.54(q)(5).

NRC RG 1.101, ([Reference 8.8](#)), Section C, states in part:

The criteria and recommendations in Revision 1 of NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants (November 1980)," are methods acceptable to the NRC staff for complying with the standards in 10 CFR 50.47 that must be met in on-site and off-site emergency response plans. These criteria provide a basis for NRC licensees and State and local governments to develop acceptable radiological emergency plans and improve emergency preparedness.

6.2 Precedent

The requested changes to the on-shift staffing and augmented ERO staffing are similar to the post-shutdown changes approved by the NRC and implemented by the Fort Calhoun Station ([Reference 8.9](#)), Three Mile Island Nuclear Station ([Reference 8.10](#)), and Indian Point Nuclear Generating Station ([Reference 8.11](#)).

6.3 No Significant Hazards Consideration Determination

Pursuant to 10 CFR 50.92, PG&E has reviewed the proposed changes and concludes that the changes do not involve a significant hazards consideration because the proposed changes satisfy the criteria in 10 CFR 50.92(c). These criteria require that operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The proposed changes would revise the DCCP E-Plan to reduce the number of on-shift and augmented ERO positions commensurate with the hazards associated with a permanently shut down and defueled facility.

The discussion below addresses each of these criteria and demonstrates that the proposed amendment does not constitute a significant hazard.

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed changes to the DCCP E-Plan do not impact the function of plant systems, structures, or components. The proposed changes do not affect

accident initiators or precursors, nor does it alter design assumptions. The proposed changes do not prevent the ability of the on-shift and augmented ERO to perform their intended functions to mitigate the consequences of any accident or event that will be credible in the permanently shut down and defueled condition. The proposed changes only remove positions that will no longer be credited in the DCPD E-Plan.

Therefore, the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed changes reduce the number of on-shift and augmented ERO positions commensurate with the hazards associated with a permanently shut down and defueled facility. The proposed changes do not involve installation of new equipment or modification of existing equipment, so that no new equipment failure modes are introduced. Also, the proposed changes do not result in a change to the way that the equipment or facility is operated so that no new accident initiators are created.

Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No:

Margin of safety is associated with confidence in the ability of the fission product barriers (i.e., fuel cladding, reactor coolant system pressure boundary, and containment structure) to limit the level of radiation dose to the public. The proposed changes are associated with the DCPD E-Plan and do not impact operation of the plant or equipment response to transients or accidents. The changes do not affect the Technical Specifications. The proposed changes do not involve a change in the method of plant operation, and no accident analyses will be affected by the proposed changes. Safety analysis acceptance criteria are not affected by the proposed changes. The revised DCPD E-Plan will continue to provide the necessary response staff with the proposed changes.

Therefore, the proposed amendment does not involve a significant reduction in a margin of safety.

Based on the above, PG&E concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

6.4 Conclusion

In conclusion, based on the considerations discussed above: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; (2) such activities will be conducted in compliance with NRC's regulations; and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

7 ENVIRONMENTAL CONSIDERATION

This amendment request meets the eligibility criteria for categorical exclusion from environmental review set forth in 10 CFR 51.22(c)(9) as follows:

- (i) The amendment involves no significant hazards consideration.

As described in [Section 6.3](#) of this evaluation, the proposed changes do not involve a significant hazards consideration.

- (ii) There is no significant change in the types or significant increase in the amounts of any effluent that may be released off-site.

The proposed changes do not involve any physical alterations to the plant configuration or any changes to the operation of the facility that could lead to a change in the type or amount of effluent release off-site.

- (iii) There is no significant increase in individual or cumulative occupational radiation exposure.

The proposed changes do not involve any physical alterations to the plant configuration or any changes to the operation of the facility that could lead to a significant increase in individual or cumulative occupational radiation exposure.

Based on the above, PG&E concludes that the proposed change meets the eligibility criteria for categorical exclusion as set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

8 REFERENCES

- 8.1 PG&E Letter DCL-18-096, "Certification of Permanent Cessation of Power Operations," dated November 27, 2018 (ADAMS Accession No. ML18331A553).
- 8.2 NEI 10-05, Revision 0, "Assessment of On-Shift Emergency Response Organization Staffing and Capabilities," dated June 2011.

- 8.3 NUREG-0654, FEMA-REP-1, Revision 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," dated November 1980.
- 8.4 PG&E Letter DCL-20-092, "License Amendment Request 20-03, Proposed Technical Specifications and Revised License Conditions for the Permanently Defueled Condition," dated December 3, 2020 (ADAMS Accession No. ML20338A546).
- 8.5 Federal Register Volume 76, Number 226, Wednesday, November 23, 2011, Rules and Regulations, "Enhancements to Emergency Preparedness Regulations; Final Rule"
- 8.6 NSIR/DPR-ISG-01, Revision 0, "Interim Staff Guidance, Emergency Planning for Nuclear Power Plants," dated November 2011 (ADAMS Accession No. ML113010523).
- 8.7 Final Response of Emergency Preparedness (EP) Frequently Asked Question (FAQ) No. 2013-008, dated January 27, 2014 (ADAMS Accession Nos. ML14017A281 and ML13323B458).
- 8.8 Regulatory Guide 1.101, Revision 5, "Emergency Response Planning and Preparedness for Nuclear Power Reactors," dated June 2005 (ADAMS Accession No. ML050730286).
- 8.9 NRC Letter, "Fort Calhoun Station – Unit 1 – Issuance of Amendment Re: Revise Emergency Plan to Address the Permanently Defueled Condition (CAC No. MF8326)," dated July 27, 2017 (ADAMS Accession No. ML17123A348).
- 8.10 NRC Letter, "Three Mile Island Nuclear Station, Units 1 and 2 – Issuance of Amendment No. 296 for Unit 1 RE: Changes to Emergency Plan for Post-Shutdown and Permanently Defueled Condition (EPID L-2018-LLA-0073)," dated April 18, 2019 (ADAMS Accession No. ML19065A114).
- 8.11 NRC Letter, "Indian Point Nuclear Generating Unit Nos. 1, 2, and 3 – Issuance of Amendment Nos. 62, 293, and 268 RE: Changes to Emergency Plan for Post-Shutdown and Permanently Defueled Condition (EPID L-2019-LLA-0080)," dated April 15, 2020 (ADAMS Accession No. ML20078L140).

TABULAR SUMMARY OF PROPOSED CHANGES TO THE
SITE EMERGENCY PLAN

Note: Regarding the format of this table, deleted text is indicated by ~~strike-through~~; added text is indicated by **Bold** font.

Current Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
Note: This table provides a summary of changes to documents comprising the DCPP Emergency Plan (E-Plan). There are multiple editorial changes that are proposed in this document, i.e., they do not change the intent of the document. They do not impact the ability to comply with Regulatory Guidance or level of commitments made in the E-Plan. These changes are shown as tracked changes within the E-Plan (except changes to step numbers); however, they are not specifically evaluated in the change assessment, since they are editorial. These include: • Changes in step numbers as a result of information which has been relocated or deleted • Page number changes within the Table of Contents • Correction of spelling errors • Changes in the Table of Contents which reflect changes made within the E-Plan • Changes in Revision numbering and Revision History • Generic decommissioning nomenclature changes such as revising ‘FSAR’ to ‘DSAR’			
2. Scope and Applicability	N/A	DCPP permanently ceased power operations at the end of its operating licenses in 2024 for Unit 1 and 2025 for Unit 2. Upon docketing of the certifications required by 10 CFR 50.82(a)(1)(i) and 10 CFR 50.82(a)(1)(ii), pursuant to 10 CFR 50.82(a)(2), the 10 CFR 50 licenses for DCPP no longer authorize operation of the reactors or emplacement or retention of fuel in the reactor vessels. Revision X of the DCPP Emergency Plan was issued to reflect the permanently shutdown and defueled condition.	Expanded the evolution of the Diablo Canyon Power Plant (DCPP) E-Plan revisions
4.1 Emergency Classification Levels (ECL)	Appendix F lists the FSAR category IV limiting faults (Reference 3) and classifies them in accordance with the emergency classification criteria discussed in Sections 4.1.1, 4.1.2, 4.1.3, and 4.1.4. Many of the transients analyzed in Chapter 15 of the FSAR do not result in degraded plant safety and therefore need not be included in the emergency classification. Those transients, which do indicate a potential degradation in the level of plant safety, are either included in the emergency classification or the effect of the transient (e.g., fuel failure, abnormal primary system temperature and/or pressure, abnormal primary system leakage, unusual radiation levels) which causes it to degrade plant safety is included in the emergency classification.	Appendix F lists the DSAR design basis accident ~~FSAR category IV limiting faults (Reference 3)~~ and classifies ~~them~~ in accordance with the emergency classification criteria discussed in Sections 4.1.1, 4.1.2, 4.1.3, and 4.1.4. ~~Many of the transients analyzed in Chapter 15 of the FSAR do not result in degraded plant safety and therefore need not be included in the emergency classification. Those transients, which do indicate a potential degradation in the level of plant safety, are either included in the emergency classification or the effect of the transient (e.g., fuel failure, abnormal primary system temperature and/or pressure, abnormal primary system leakage, unusual radiation levels) which causes it to degrade plant safety is included in the emergency classification.~~	The revision reflects the change in accidents considered in the post-shutdown on-shift staffing analysis.
4.4 Cross Reference to NUREG-0654	• Appendix F contains the Staffing Study and includes analysis of FSAR Condition IV Accidents.	• Appendix F contains the post-shutdown On-Shift Staffing StudyAssessment and includes analysis of DSAR design basis accident ~~FSAR Condition IV Accidents.~~	The revision reflects the change in accidents considered in the post-shutdown on-shift staffing analysis (proposed DCPP E-Plan Appendix F).

Current Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
5.1.3 Minimum On-Shift ERO Staffing Requirements	At DCPP, a minimum staff of 22 personnel is required to be on-shift during operation of both units and the ISFSI. This implements the criteria of NUREG-0654, Table B-1 and NUREG 0737 Supplement 1, Table 2.	At DCPP, a minimum staff of 1222 personnel is required to be on-shift during spent fuel storage in the spent fuel pools (SFPs) ~~operation of both units~~ and the ISFSI. This implements the criteria of NUREG-0654, Table B-1 ~~and NUREG-0737 Supplement 1, Table 2.~~	The revision reflects the results of the post-shutdown on-shift staffing analysis. It clarifies on-shift personnel are required while spent fuel is stored in the SFPs and independent spent fuel storage installation (ISFSI), as the DCPP Units 1 and 2 licenses are possession-only. Reference to NUREG-0737 is deleted, as this is not applicable to a permanently shutdown and defueled reactor.
5.3 Diablo Canyon On-Shift Emergency Response Organization 5.3.2 Shift Manager	The Shift Manager is responsible for activating the DCPP Emergency Plan and assumes emergency response command and control until relieved by the Site Emergency Coordinator or Emergency Director. 1) Prior to being relieved, the Shift Manager is responsible for implementing the following non-delegable activities and authorizations: ... 2) The Shift Manager is responsible for ensuring the performance of the following delegable activities:	The Shift ~~Manager~~ Supervisor is responsible for activating the DCPP Emergency Plan and assumes emergency response command and control until relieved by the Site Emergency Coordinator or Emergency Director. The Shift Supervisor shall be qualified as a Certified Fuel Handler (CFH). 1) Prior to being relieved, the Shift ~~Manager~~ Supervisor is responsible for implementing the following non-delegable activities and authorizations: ... 2) The Shift ~~Manager~~ Supervisor is responsible for ensuring the performance of the following delegable activities:	This revision is consistent with planned changes to the DCPP Technical Specifications that will revise the minimum shift staffing requirements at DCPP (i.e., the Permanently Defueled Technical Specification License Amendment Request [LAR]) to include CFHs and rename the existing Shift Manager as the Shift Supervisor.
5.3 Diablo Canyon On-Shift Emergency Response Organization 5.3.3 Shift Foreman	5.3.3 Shift Foreman Two Shift Foremen are on-shift in the normal operating organization. One Shift Foreman is assigned to each unit. A third Shift Foreman/Shift Technical Advisor (STA) is normally staffed on-shift for work control and is designated as the Work Control Shift Foreman (WCSFM). During an emergency, the Shift Manager assigns each Shift Foreman to perform various roles such as: 1) Performing function of Shift Technical Advisor (STA)/Incident Accessor (IA). 2) Managing operational activities. 3) Supervising the Control Room management in the operational control of the plant. 4) Advising the Site Emergency Coordinator on operational matters. 5) Performing emergency communications.	5.3.3 ~~Shift Foreman~~ Certified Fuel Handler Two ~~Shift Foremen~~ CFHs are on-shift in the normal operating organization, one of which is the Shift Supervisor. ~~One Shift Foreman is assigned to each unit. A third Shift Foreman/Shift Technical Advisor (STA) is normally staffed on-shift for work control and is designated as the Work Control Shift Foreman (WCSFM).~~ During an emergency, the ~~Shift Manager~~ CFH assigns each Shift Foreman to perform various roles such as performs the following: 1) ~~Performing function of Shift Technical Advisor (STA)/Incident Accessor (IA).~~ Emergency communications 2) Technical support for plant system engineering, repair, and corrective actions 3) Assessment of the incident including initial classification and development of a Protective Action Recommendation 4) - ~~The other Shift Foreman provides p~~ Plant management representation in the Control Room, and including: a) Managing operational activities. b) Supervising the Control Room management in the operational control of the plant. c) Advising the Site Emergency Coordinator on operational matters. d) ~~Performing emergency communications.~~	This change reflects the removal of the Shift Foreman position and replacement with a CFH consistent with planned changes to the DCPP Technical Specifications that will define CFH (i.e., the Permanently Defueled Technical Specification LAR). The proposed elimination of the Shift Foreman position has been evaluated in the DCPP analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled condition. Refer to Sections 5.2.1 and 5.2.3 for further discussion.

Current Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
	Shift Foreman will have either a STA or IA qualification consistent with the guidance of INPO ACAD 90-003, "Guidelines for the Training and Qualification of Shift Technical Advisors." This qualification is to ensure technical support for plant system engineering, repair, and corrective actions. The STA/IA designated Shift Foreman provides assessment of the incident including initial classification and development of a Protective Action Recommendation. If the emergency involves loss of heat sink (core cooling source), or some other occurrence for which reactor core damage is a possibility, the STA/IA is primarily responsible for evaluation of this aspect of the emergency. The Shift Manager may assign these duties to another on-shift individual with appropriate functional qualifications that is not already filling a minimum on-shift staff position.	~~Shift Foreman will have either a STA or IA qualification consistent with the guidance of INPO ACAD 90-003, "Guidelines for the Training and Qualification of Shift Technical Advisors." This qualification is to ensure technical support for plant system engineering, repair, and corrective actions. The STA/IA designated Shift Foreman provides assessment of the incident including initial classification and development of a Protective Action Recommendation. If the emergency involves loss of heat sink (core cooling source), or some other occurrence for which reactor core damage is a possibility, the STA/IA is primarily responsible for evaluation of this aspect of the emergency. The Shift Manager may assign these duties to another on-shift individual with appropriate functional qualifications that is not already filling a minimum on-shift staff position.~~	
5.3 Diablo Canyon On-Shift Emergency Response Organization 5.3.4 Operators	5.3.4 Operators These are positions in the normal plant organization that continue to perform plant operational manipulations in the emergency organization when not otherwise assigned.	5.3.4 Non-Certified Operators (NCOs) These are positions in the normal plant organization that continue to perform plant operational manipulations in the emergency organization when not otherwise assigned. One NCO is assigned to each Unit and a third NCO is a rover between Units.	This revision reflects NCOs replacing nuclear operators. The proposed elimination of the nuclear operator position has been evaluated in the DCPD analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled condition. Refer to Section 5.2.1 for further discussion
5.3 Diablo Canyon On-Shift Emergency Response Organization 5.3.5 Shift Technical Advisor/Incident Assessor	5.3.5 Shift Technical Advisor/Incident Assessor The STA/IA is a functional requirement (not a position) for the on-shift organization. The function of the STA/IA is to provide engineering expertise on-shift, which may be fulfilled by an STA/IA qualified licensed Senior Reactor Operator (SRO) acting in a dual functional role (preferably a Shift Foreman with functional qualifications).	~~5.3.5 Shift Technical Advisor/Incident Assessor The STA/IA is a functional requirement (not a position) for the on-shift organization. The function of the STA is to provide engineering expertise on-shift, which may be fulfilled by an STA/IA qualified licensed Senior Reactor Operator (SRO) acting in a dual functional role (preferably a Shift Foreman with functional qualifications).~~	This revision removes the Shift Technical Advisor/Incident Assessor function. The STA/IA function for a permanently shutdown and defueled reactor is no longer required. Emergency Preparedness functional requirements for Technical Support will be performed by the Shift Supervisor and CFH. This deletion is consistent with planned changes to the DCPD Technical Specifications (i.e., the Permanently Defueled Technical Specification LAR) that will delete the STA from the DCPD operating License and Technical Specifications.
5.3 Diablo Canyon On-Shift Emergency Response Organization 5.3.6 Shift Phone Talker	5.3.6 Shift Phone Talker Two Shift Phone Talkers are positions in the on-shift organization. The primary tasks of the Shift Phone Talkers are to verbally communicate the Emergency Notification Forms to the County, State, and U.S. Coast Guard (if necessary) and activate the Voice Automated Notification System (VANS). These positions are staffed by on-shift individuals with the necessary functional qualifications. The Shift Manager may assign these tasks to an on-shift individual with appropriate functional qualifications.	~~5.3.6 Shift Phone Talker Two Shift Phone Talkers are positions in the on-shift organization. The primary tasks of the Shift Phone Talkers are to verbally communicate the Emergency Notification Forms to the County, State, and U.S. Coast Guard (if necessary) and activate the Voice Automated Notification System (VANS). These positions are staffed by on-shift individuals with the necessary functional qualifications. The Shift Manager may assign these tasks to an on-shift individual with appropriate functional qualifications.~~	This revision eliminates the Shift Phone Talker position. The Shift Phone Talker tasks for a permanently shutdown and defueled reactor will be performed by the CFH or NCO. The proposed elimination of the Shift Phone Talker position has been evaluated in the DCPD analysis of proposed post-shutdown on-shift staffing in conjunction with the postulated accidents that will be applicable in the permanently defueled condition. Refer to Section 5.2.3 for further discussion.
5.3 Diablo Canyon On-Shift Emergency Response Organization	5.3.7 Security Watch Commander	5.3.7 Security ~~Watch Commander~~ Personnel	This revision reflects the reliance on security personnel per the approved Security Plan. No changes are being made to security personnel as part of this LAR.

Current Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
5.3.7 Security Watch Commander	The Security Watch Commander is a normal plant organization position that is generally located in the main Protected Area, but may be located elsewhere depending on security strategy. The Security Watch Commander is responsible for onsite emergency assembly and accountability, the results of which are reported to the Site Emergency Coordinator.	Security personnel is per the Security Plan. The Security Watch Commander is a normal plant organization position that is generally located in the main Protected Area, but may be located elsewhere depending on security strategy. The Security Watch Commander is responsible for onsite emergency assembly and accountability, the results of which are reported to the Site Emergency Coordinator.	
5.6 Technical Support Center (TSC)	The TSC may communicate the notifications and PARs to the County, State agencies and NRC. More specifically, functional assignments at the TSC include (primary Emergency Response Organization assignments are indicated in parenthesis): 1) Engineering and Technical Analysis (Engineering Advisor) Perform systems analysis, resolve core/hydraulics, electrical, instrumentation, and mechanical engineering problems, and diagnose plant conditions. Maintain liaison with offsite technical support. Provide coordination and supervision of all Company support teams operating at or in the vicinity of the site. ... 3) Communicator Notify affected individuals and agencies of the emergency, establish initial contact	The TSC may communicate the notifications ~~and PARs~~ to the ~~County, State agencies and~~ NRC. More specifically, functional assignments at the TSC include (primary ERO assignments are indicated in parenthesis): 1) Engineering and Technical Analysis (Engineering Advisor) Perform systems analysis, resolve ~~core/hydraulics, electrical, instrumentation,~~ and mechanical engineering problems, and diagnose plant conditions. Maintain liaison with offsite technical support. Provide coordination and supervision of all Company support teams operating at or in the vicinity of the site. ... 3) Communicator (ENS Communicator) Notify affected individuals and ~~agencies~~NRC of the emergency, establish initial contact	This deletion reflects the performance of State/local notifications and protective action recommendations (PARs) no longer being supported in the TSC. These functions are directly transferred from on-shift directly to the Emergency Operations Facility (EOF). The deletion under item 1) removes reference to disciplines that are no longer applicable in the permanently shutdown and defueled condition. There are no reactor core/hydraulics and there are no longer any complex automatic control systems in service. The addition under item 3) supports the remaining communications functions after permanent cessation of operations.
5.6 Technical Support Center (TSC) 5.6.1 Site Emergency Coordinator	2) After the TSC is activated, the Site Emergency Coordinator will relieve the Shift Manager. 3) Prior to the Emergency Director assuming his position at the Emergency Operation Facility, the Site Emergency Coordinator is responsible for implementing the following non-delegable activities and authorizations: ... c) Authorizing any Protective Action Recommendations (PARs). d) Authorizing changes in the Emergency Classification and notification of offsite authorities. ... f) Authorizing the ingestion of potassium iodine (KI) to onsite personnel. ... 4) h) Assigning plant staff personnel to positions in the Onsite Emergency Organization as appropriate.	2) After the TSC is activated, the Site Emergency Coordinator will relieve the Shift ~~Manager~~Supervisor. 3) Prior to the Emergency Director assuming his position at the Emergency Operation Facility, the Site Emergency Coordinator is responsible for implementing the following non-delegable activities and authorizations: ... ~~e) Authorizing any Protective Action Recommendations (PARs).~~ d) Authorizing changes in the Emergency Classification and NRC notification ~~of offsite authorities~~. ... 4) ... e) Overseeing TSC communication staff. ... h) Notifying plant staff and other affected individuals and organizations of the emergency and assigning plant staff personnel to positions in the Onsite Emergency Organization as appropriate ...	This revision is consistent with planned changes to the DCCP Technical Specifications that will rename the existing Shift Manager as the Shift Supervisor. These revisions also reflect the performance of State/local notifications and PARs no longer being supported in the TSC. These functions are directly transferred from on-shift directly to the EOF. These revisions clarify the authorization for ingestion of potassium iodide to onsite personnel remains with the Site Emergency Coordinator (SEC). Lastly, as shown in Attachment 4, these revisions add tasks to the SEC from the Communications Advisor.

Current Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
		5) Authorizing the ingestion of KI to onsite personnel.	
5.6 Technical Support Center (TSC) 5.6.2 TSC Director	5.6.2 TSC Director The TSC Director is responsible for the following activities: 1) Set up and staffing of the TSC and providing assistance to the SEC in performance of their response activities. 2) Ensuring adequate staffing is available in the TSC. 3) Coordinating ongoing TSC operations	~~5.6.2 TSC Director~~ ~~The TSC Director is responsible for the following activities:~~ 1) ~~Set up and staffing of the TSC and providing assistance to the SEC in performance of their response activities.~~ 2) ~~Ensuring adequate staffing is available in the TSC.~~ 3) ~~Coordinating ongoing TSC operations~~	This revision reflects the elimination of the TSC Director position. As shown in Attachment 4 , the TSC Director tasks were eliminated due to the overlap between existing SEC tasks.
5.6 Technical Support Center (TSC) 5.6.3 Radiological Advisor	The Radiological Advisor is responsible for the following activities: ... 5) Prior to UDAC staffing, assisting with PAR development based on Control Room or TSC dose assessment.	The Radiological Advisor is responsible for the following activities: ... 5) ~~Prior to UDAC staffing, assisting with PAR development based on Control Room or TSC dose assessment.~~ Enabling TSC radiation monitors and verifies habitability. 6) Trending radiation levels in the plant. 7) Serving as the OSC Director primary TSC contact for radiological matters. 8) Preparing release pathway information for dose assessment purposes. 9) Directing in-plant surveys, direct analysis of in-plant samples, and establish radiation and/or contamination control and boundaries. 10) Determining radiation protection access requirements for entry to radiologically controlled area. 11) Determining when an emergency exposure authorization is required and provide justification to the Site Emergency Coordinator or Emergency Director. 12) Coordinating briefing and dispatch of personnel into affected plant areas with the OSC Director. 13) Maintaining proper records and logs.	This revision reflects the performance of PARs no longer being supported in the TSC. This PAR function is directly transferred from on-shift to the EOF. This revision also reflects the reassignment of tasks from the following eliminated positions: Radiological Data Processor, PPC Operator, Site Radiation Protection (RP) Coordinator, and Chemistry Coordinator. Based on reduced scope and consequences of accidents associated with defueled reactors, these tasks can be completed by the Radiological Advisor without reduction in emergency response capability. The reassignment of Emergency Response Organization (ERO) responsibilities will be further demonstrated through the performance of drills utilizing the revised procedures and staffing (reference Enclosure 2 supplemental action).
5.6 Technical Support Center (TSC) 5.6.4 Radiological Data Processor	5.6.4 Radiological Data Processor The Radiological Data Processor is responsible for the following activities: 1) Enabling TSC radiation monitors and verifies habitability. 2) Trending radiation levels in the plant. 3) Serving as the primary contact for Site RP Coordinator in the OSC. 4) Performing offsite Dose Calculations if EOF is unavailable.	~~5.6.4 Radiological Data Processor~~ ~~The Radiological Data Processor is responsible for the following activities:~~ 1) ~~Enabling TSC radiation monitors and verifies habitability.~~ 2) ~~Trending radiation levels in the plant.~~ 3) ~~Serving as the primary contact for Site RP Coordinator in the OSC.~~ 4) ~~Performing offsite Dose Calculations if EOF is unavailable.~~	This revision reflects the elimination of the Radiological Data Processor position. As shown in Attachment 4 , the Radiological Data Processor tasks were reassigned to the Radiological Advisor.
5.6 Technical Support Center (TSC) 5.6.5 Maintenance Advisor	5.6.5 Maintenance Advisor The Maintenance Advisor is responsible for the following activities: 1) Coordinating maintenance activities between TSC and OSC 2) Advising the TSC staff on plant equipment repairs assessment, site materials capabilities and resource status as required.	~~5.6.5 Maintenance Advisor~~ ~~The Maintenance Advisor is responsible for the following activities:~~ 1) ~~Coordinating maintenance activities between TSC and OSC~~ 2) ~~Advising the TSC staff on plant equipment repairs assessment, site materials capabilities and resource status as required.~~	This revision reflects the elimination of the Maintenance Advisor position. As shown in Attachment 4 , the Maintenance Advisor tasks were reassigned to the Operations Advisor.

Current Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
5.6 Technical Support Center (TSC) 5.6.7 Plant Process Computer (PPC) Operator	5.6.7 Plant Process Computer (PPC) Operator The PPC Operator is responsible for the following activities: 1) Assisting the Reactor Engineer in reading the PPC data and preparing release pathway information for dose assessment purposes.	~~5.6.7 Plant Process Computer (PPC) Operator~~ ~~The PPC Operator is responsible for the following activities:~~ 1) ~~Assisting the Reactor Engineer in reading the PPC data and preparing release pathway information for dose assessment purposes.~~	This revision reflects the elimination of the PPC Operator position. As shown in Attachment 4 , the PPC Operator task was reassigned to the Radiological Advisor.
5.6 Technical Support Center (TSC) 5.6.8 Mechanical Engineer	5.6.8 Mechanical Engineer The Mechanical Engineer is responsible for the following activities: 1) Performing mechanical engineering assessments, trends and recommendations.	~~5.6.8 Mechanical Engineer~~ ~~The Mechanical Engineer is responsible for the following activities:~~ 1) ~~Performing mechanical engineering assessments, trends and recommendations.~~	This revision reflects the elimination of the Mechanical Engineer position. As shown in Attachment 4 , the Mechanical Engineer task was eliminated due to the reduced scope of plant operating systems.
5.6 Technical Support Center (TSC) 5.6.9 Electrical Engineer	5.6.9 Electrical Engineer The Electrical Engineer is responsible for the following activities: 1) Performing electrical engineering assessments, trends and recommendations.	~~5.6.9 Electrical Engineer~~ ~~The Electrical Engineer is responsible for the following activities:~~ 1) ~~Performing electrical engineering assessments, trends and recommendations.~~	This revision reflects the elimination of the Electrical Engineer position. As shown in Attachment 4 , the Electrical Engineer task was eliminated due to the reduced scope of plant operating systems.
5.6 Technical Support Center (TSC) 5.6.10 Reactor Engineer	5.6.10 Reactor Engineer The Reactor Engineer is responsible for the following activities: 1) Performing reactor engineering assessments, trends and recommendations.	~~5.6.10 Reactor Engineer~~ ~~The Reactor Engineer is responsible for the following activities:~~ 1) ~~Performing reactor engineering assessments, trends and recommendations.~~	This revision reflects the elimination of the Reactor Engineer position. As shown in Attachment 4 , the Reactor Engineer task was eliminated due to the lack of operating reactors at DCPD.
5.6 Technical Support Center (TSC) 5.6.11 Operations Advisor	The Operations Advisor is responsible for the following activities: 1) Reporting initially to the Control Room to relieve the Shift Manager of plant operational oversight responsibilities. 2) Report to the TSC upon Command and Control being transferred from the SM to either the SEC or ED. 3) Providing general operational advice and assistance to the SEC and TSC Staff.	The Operations Advisor is responsible for the following activities: 1) Reporting initially to the Control Room to relieve the Shift ~~Manager~~ Supervisor of plant operational oversight responsibilities. 2) Report to the TSC upon Command and Control being transferred from the ~~SM~~ Shift Supervisor to either the SEC or ED. 3) Providing general operational advice and assistance to the SEC and TSC Staff. 4) Coordinating maintenance activities between TSC and OSC 5) Advising the TSC staff on plant equipment repairs assessment, site materials capabilities, and resource status as required.	This revision is consistent with planned changes to the DCPD Technical Specifications that will rename the existing Shift Manager as the Shift Supervisor. This revision also reflects the reassignment of tasks from the Maintenance Advisor eliminated position. Based on reduced scope and consequences of accidents associated with defueled reactors, these tasks can be completed by the Operations Advisor without reduction in emergency response capability. The reassignment of ERO responsibilities will be further demonstrated through the performance of drills utilizing the revised procedures and staffing (reference Enclosure 2 supplemental action).
5.6 Technical Support Center (TSC) 5.6.12 Communications Advisor	5.6.12 Communications Advisor The Communications Advisor is responsible for the following activities: 1) Overseeing TSC communications staff. 2) Performing or overseeing all off-site notifications when the SEC has responsibilities for classifications, notifications and PARs. 3) Maintaining continuous communications with the Control Room, transmitting and receiving technical data and procedural activities between the facilities.	~~5.6.12 Communications Advisor~~ ~~The Communications Advisor is responsible for the following activities:~~ ~~1) Overseeing TSC communications staff.~~ ~~2) Performing or overseeing all off-site notifications when the SEC has responsibilities for classifications, notifications and PARs.~~ ~~3) Maintaining continuous communications with the Control Room, transmitting and receiving technical data and procedural activities between the facilities.~~	This revision reflects the elimination of the Communications Advisor position. As shown in Attachment 4 , several of the Communications Advisor tasks were reassigned to the SEC. This revision also reflects the performance of State/local notifications and PARs no longer being supported in the TSC. These functions are directly transferred from on-shift to the EOF.

Current Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
	4) As directed by the Site Emergency Coordinator, notifying plant staff and other affected individuals and organizations of the emergency and their assignments.	~~4) As directed by the Site Emergency Coordinator, notifying plant staff and other affected individuals and organizations of the emergency and their assignments.~~	
5.6 Technical Support Center (TSC) 5.6.13 OPS Communicator - CR	5.6.13 OPS Communicator - CR The OPS Communicator - CR is responsible for the following activities: 1) Maintaining continuous communications from the Control Room with the TSC, transmitting and receiving technical data and procedural activities between the facilities	~~5.6.13 OPS Communicator - CR The OPS Communicator - CR is responsible for the following activities: 2) Maintaining continuous communications from the Control Room with the TSC, transmitting and receiving technical data and procedural activities between the facilities~~	This revision reflects the elimination of the OPS Communicator - CR position. As shown in Attachment 4 , the OPS Communicator - CR task was eliminated due to the reduced scope and consequences of accidents associated with defueled reactors. Communication between the ERFs can occur directly between the facility leads.
5.6 Technical Support Center (TSC) 5.6.14 Agency/ENS Communicator	2) Performing State and local notifications if EOF is not available.	~~2) Performing State and local notifications if EOF is not available.~~	This revision also reflects the performance of State/local notifications and PARs no longer being supported in the TSC. These functions are directly transferred from on-shift to the EOF.
5.7 Operational Support Center (OSC) 5.7.1 OSC Director	The OSC Director is responsible for the following activities: ... 3) Coordinating a repair plan to recover from the emergency, in cooperation with the SEC and Maintenance Advisor. 4) Coordinating the fabrication and sets up of any special equipment necessary at the direction of the SEC and Maintenance Advisor. 5) Coordinating the movement and accountability of maintenance teams. 6) Providing OSC status updates to the TSC.	The OSC Director is responsible for the following activities: ... 2) Coordinating a repair plan to recover from the emergency, in cooperation with the SEC and OperationsMaintenance Advisor. 3) Coordinating the fabrication and sets up of any special equipment necessary at the direction of the SEC and OperationsMaintenance Advisor. 4) Coordinating the movement and accountability of maintenance teams. 5) Providing OSC status updates to the TSC. 6) Planning and coordinating resources to conduct assessment, maintenance, repair or installation of special equipment. 7) Providing technical advice to evaluation personnel in the TSC. 8) Coordinating plant access and ensuring 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. 9) Maintaining the capability of communicating with personnel engaged in operations, maintenance or chemistry and radiation protection emergency response activities. 10) Assisting the Control Room and TSC/OSC in communicating with response teams.	This revision reflects the reassignment of tasks from the Maintenance Coordinators (Mechanical, Electrical, and I&C) and Team Coordinator eliminated positions. Based on reduced scope and consequences of accidents associated with defueled reactors, these tasks can be completed by the OSC Director without reduction in emergency response capability. The reassignment of ERO responsibilities will be further demonstrated through the performance of drills utilizing the revised procedures and staffing (reference Enclosure 2 supplemental action).
5.7 Operational Support Center (OSC)	5.7.2 Maintenance Coordinators (Mechanical, Instrument and Control, and Electrical)	~~5.7.2 Maintenance Coordinators (Mechanical, Instrument and Control, and Electrical)~~	This revision reflects the elimination of the Maintenance Coordinators, Team Coordinator, Site RP Coordinator, Chemistry Coordinator, and Operations Coordinator

Current Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
5.7.2 Maintenance Coordinators (Mechanical, Instrument and Control, and Electrical), 5.7.3 Team Coordinator, 5.7.4 Site Radiation Protection Coordinator, 5.7.5 Chemistry Coordinator, and 5.7.6 Operations Coordinator	The Maintenance Coordinators are responsible for the following activities: 1) Planning and coordinating resources to conduct assessment, maintenance, repair or installation of special equipment. 2) Providing team status updates to the Team Coordinator. 3) Providing technical advice to evaluation personnel in the TSC. 5.7.3 Team Coordinator The Team Coordinator is responsible for the following activities: 1) Coordinating plant access and ensuring 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. 2) Maintaining accountability of personnel dispatched from the OSC. 3) Maintaining the capability of communicating with personnel engaged in operations, maintenance or chemistry and radiation protection emergency response activities. 4) Ensuring response teams have been briefed on plant conditions prior to dispatch. 5) Assisting the Control Room and TSC/OSC in communicating with response teams. 5.7.4 Site Radiation Protection Coordinator The Site Radiation Protection Coordinator is responsible for the following activities: 1) Providing initial communications, dispatching, and coordinating the activities of the Onsite Field Monitoring Team (FMT) until transferring these responsibilities to the FMT Communicator and FMT Coordinator in the EOF. 2) Providing personnel exposure monitoring and record keeping. 3) Directing in-plant surveys and establishing radiation and/or contamination control area boundaries. 4) Determining radiation protection access requirements for entry to radiologically controlled areas. 5) Determining when an emergency exposure authorization is required and providing justification to the SEC or ED. 6) Keeping the Radiological Advisor, OSC Director and Team Coordinator informed of actions and findings.	~~The Maintenance Coordinators are responsible for the following activities:~~ 1) ~~Planning and coordinating resources to conduct assessment, maintenance, repair or installation of special equipment.~~ 2) ~~Providing team status updates to the Team Coordinator.~~ 3) ~~Providing technical advice to evaluation personnel in the TSC.~~ ~~5.7.3 Team Coordinator The Team Coordinator is responsible for the following activities:~~ 1) ~~Coordinating plant access and ensuring 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.~~ 2) ~~Maintaining accountability of personnel dispatched from the OSC.~~ 3) ~~Maintaining the capability of communicating with personnel engaged in operations, maintenance or chemistry and radiation protection emergency response activities.~~ 4) ~~Ensuring response teams have been briefed on plant conditions prior to dispatch.~~ 5) ~~Assisting the Control Room and TSC/OSC in communicating with response teams.~~ ~~5.7.4 Site Radiation Protection Coordinator The Site Radiation Protection Coordinator is responsible for the following activities:~~ 1) ~~Providing initial communications, dispatching, and coordinating the activities of the Onsite Field Monitoring Team (FMT) until transferring these responsibilities to the FMT Communicator and FMT Coordinator in the EOF.~~ 2) ~~Providing personnel exposure monitoring and record keeping.~~ 3) ~~Directing in-plant surveys and establishing radiation and/or contamination control area boundaries.~~ 4) ~~Determining radiation protection access requirements for entry to radiologically controlled areas.~~ 5) ~~Determining when an emergency exposure authorization is required and providing justification to the SEC or ED.~~ 6) ~~Keeping the Radiological Advisor, OSC Director and Team Coordinator informed of actions and findings.~~ 7) ~~Coordinating briefing and dispatch of personnel into affected plant areas with the OSC Team Coordinator.~~ ~~5.7.5 Chemistry Coordinator The Chemistry Coordinator is responsible for the following activities:~~	positions. As shown in Attachment 4 , these tasks were either eliminated or reassigned due to the reduced scope and consequences of accidents associated with defueled reactors.

Current Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
	7) Coordinating briefing and dispatch of personnel into affected plant areas with the OSC Team Coordinator. 5.7.5 Chemistry Coordinator The Chemistry Coordinator is responsible for the following activities: 1) Directing radiological and chemical analysis of in plant samples. 2) Maintaining proper records and logs. 3) Keeping the Radiological Advisor informed of actions and findings. 4) Coordinating, briefing, and dispatching of personnel into the plant for sampling or analysis with the Site Radiation Protection Coordinator and Team Coordinator. 5.7.6 Operations Coordinator The Operations Coordinator is responsible for the following activities: 1) Coordinating operation's response outside the Control Room. 2) Ensuring the Control Room is updated on status of OSC team assignments.	1) ~~Directing radiological and chemical analysis of in plant samples.~~ 2) ~~Maintaining proper records and logs.~~ 3) ~~Keeping the Radiological Advisor informed of actions and findings.~~ 4) ~~Coordinating, briefing, and dispatching of personnel into the plant for sampling or analysis with the Site Radiation Protection Coordinator and Team Coordinator.~~ ~~5.7.6 Operations Coordinator~~ ~~The Operations Coordinator is responsible for the following activities:~~ 5) ~~Coordinating operation's response outside the Control Room.~~ 6) ~~Ensuring the Control Room is updated on status of OSC team assignments.~~	
5.7 Operational Support Center (OSC) 5.7.7 Onsite Field Monitoring Teams	5.7.7 Onsite Field Monitoring Teams (FMTs) The onsite Field Monitoring Team is responsible for the following activities: 2) Maintaining initial communications with the Site RP Coordinator and subsequently with the FMT Coordinator for reporting of monitoring results and maintaining cognizance of the emergency situation.	~~5.7.7 Onsite Field Monitoring Teams (FMTs)~~RP Technicians ~~The onsite Field Monitoring Team is~~ RP Technicians are responsible for the following activities: 2) Maintaining initial communications with the ~~Site RP Coordinator~~Radiological Manager and subsequently with the FMT Coordinator for reporting of monitoring results and maintaining cognizance of the emergency situation.	This revision reflects the elimination of the On-site FMT and Site RP Coordinator position. As shown in Attachment 4 , these tasks were reassigned due to the reduced scope and consequences of accidents associated with defueled reactors.
5.7 Operational Support Center (OSC) 5.7.8 Maintenance, RP, Chemistry and Operations Personnel	5.7.8 Maintenance, RP, Chemistry and Operations Personnel The following personnel provide support in planning and performing tasks in their disciplines. 1) Mechanical Maintenance personnel 2) Electrical Maintenance personnel 3) Technical Maintenance personnel 4) Radiation Protection personnel 5) Chemistry personnel 6) Operations personnel	~~5.7.8 Maintenance, RP, Chemistry and Operations Personnel~~ ~~The following personnel provide support in planning and performing tasks in their disciplines.~~ 1) ~~Mechanical Maintenance personnel~~ 2) ~~Electrical Maintenance personnel~~ 3) ~~Technical Maintenance personnel~~ 4) ~~Radiation Protection personnel~~ 5) ~~Chemistry personnel~~ 6) ~~Operations personnel~~	As shown in Attachment 4 , this task was eliminated as additional support can be called in as needed.
5.8 Emergency Operations Facility (EOF)	5) Company Interface Site emergency response activities are communicated to the Company support organization by the Government Relations Coordinator located at the EOF. The General Office Technical Liaison (GOTL) coordinates with the Government Relations Coordinator to ensure alignment between DCPD and corporate response.	5) Company Interface Site emergency response activities are communicated to the Company support organization by the Government Relations Coordinator located at the EOF. ~~The General Office Technical Liaison (GOTL) coordinates with the Government Relations Coordinator to ensure alignment between DCPD and corporate response.~~	This revision reflects elimination of the General Office Technical Liaison position from the DCPD E-Plan as this is a support activity only and not required for performance of Emergency Planning Functions. The position is managed and controlled by Emergency Plan Implementing Procedures (EPIPs).

Current Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
	The Government Relations Coordinator is provided with communications via the Company telephone system and data links through the local area network (LAN)/wide area network (WAN).	The Government Relations Coordinator is provided with communications via the Company telephone system and data links through the local area network (LAN)/wide area network (WAN).	
5.8 Emergency Operations Facility (EOF) 5.8.1 Emergency Director	Emergency Director responsibility and authority for overall response direction and for recommending protective actions to offsite authorities is initially assumed by the Site Emergency Coordinator until the Emergency Director position is assumed at the EOF by the assigned staff member.	Emergency Director responsibility and authority for overall response direction ~~and for recommending protective actions to offsite authorities~~ is initially assumed by the Site Emergency Coordinator until the Emergency Director position is assumed at the EOF by the assigned staff member.	This revision reflects the performance of PARs no longer being supported in the TSC. This PAR function is directly transferred from on-shift to the EOF.
5.8 Emergency Operations Facility (EOF) 5.8.3 Radiological Manager	The Radiological Manager is responsible for the following activities: ... 4) Performing dose projections and providing radiological assessment information for the determination of Protective Action Recommendations. Advising the TSC of PARs (ED not in EOF command), or formulating PARs for ED approval. 5) Ensuring proper exposure controls are taken for DCCP offsite emergency response personnel.	The Radiological Manager is responsible for the following activities: ... 4) Performing dose projections and providing radiological assessment information for the determination of ~~PARs~~ ~~Protective Action Recommendations. Advising the TSC of PARs (ED not in EOF command), or f~~ Formulating PARs for ED approval. 5) Ensuring proper exposure controls are taken for DCCP offsite emergency response personnel. 6) Monitoring the plant telephone bridge line. 7) Directing and coordinating the DCCP offsite dose assessment activities. 8) Coordinating the deployment of Field Monitoring Teams in support of dose assessment activities. 9) Coordinating assessment and communications with offsite agency personnel in the UDAC.	This revision reflects the reassignment of tasks from the Dose Assessment Coordinator eliminated position. Based on reduced scope and consequences of accidents associated with defueled reactors, these tasks can be completed by the Radiological Manager without reduction in emergency response capability. The reassignment of ERO responsibilities will be further demonstrated through the performance of drills utilizing the revised procedures and staffing (reference Enclosure 2 supplemental action).
5.8 Emergency Operations Facility (EOF) 5.8.5 Dose Assessment Coordinator	5.8.4 Dose Assessor The Dose Assessor is responsible for the following activities: 1) Performing dose projections using dose assessment computer models or manual dose calculations. 2) Updating the Radiological Manager, Dose Assessment Coordinator and UDAC staff on the status of any plant release and of dose projection results. 5.8.5 Dose Assessment Coordinator The Dose Assessment Coordinator is responsible for the following activities: 1) Monitoring the plant telephone bridge line. 2) Directing and coordinating the DCCP offsite dose assessment activities. 3) Coordinating the deployment of Field Monitoring Teams in support of dose assessment activities. 4) Coordinating assessment and communications with offsite agency personnel in the UDAC.	5.8.4 Dose Assessor The Dose Assessor is responsible for the following activities: 1) Performing dose projections using dose assessment computer models or manual dose calculations. 2) Updating the Radiological Manager, ~~Dose Assessment Coordinator~~ and UDAC staff on the status of any plant release and of dose projection results. ~~5.8.5 Dose Assessment Coordinator~~ ~~The Dose Assessment Coordinator is responsible for the following activities:~~ 1) ~~Monitoring the plant telephone bridge line.~~ 2) ~~Directing and coordinating the DCCP offsite dose assessment activities.~~ 3) ~~Coordinating the deployment of Field Monitoring Teams in support of dose assessment activities.~~ 4) ~~Coordinating assessment and communications with offsite agency personnel in the UDAC.~~	This revision reflects the elimination of the Dose Assessment Coordinator position. As shown in Attachment 4 , these tasks were reassigned to the Radiological Manager due to the reduced scope and consequences of accidents associated with defueled reactors.

Current Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
5.8 Emergency Operations Facility (EOF) 5.8.6 Field Monitoring Team Coordinator	The Field Monitoring Team Coordinator is responsible for the following activities: ... 3) Coordinating monitoring activities for the Monitoring, Decontamination and Reception Centers.	The Field Monitoring Team Coordinator is responsible for the following activities: ... 3) Coordinating monitoring activities for the Monitoring, Decontamination and Reception Centers. 4) Establishing and maintaining communications with the FMTs. 5) Recording and reporting field monitoring survey, sample and exposure information.	This revision reflects the reassignment of tasks from the Field Monitoring Team Communicator eliminated position. Based on reduced scope and consequences of accidents associated with defueled reactors, these tasks can be completed by the Field Monitoring Team Coordinator without reduction in emergency response capability. The reassignment of ERO responsibilities will be further demonstrated through the performance of drills utilizing the revised procedures and staffing (reference Enclosure 2 supplemental action).
5.8 Emergency Operations Facility (EOF) 5.8.7 Field Monitoring Team Communicator	5.8.7 Field Monitoring Team Communicator The Field Monitoring Team Communicator is responsible for the following activities: 1) Establishing and maintaining communications with the Field Monitoring Teams. 2) Recording and reporting field monitoring survey, sample and exposure information.	~~5.8.7 Field Monitoring Team Communicator~~ ~~The Field Monitoring Team Communicator is responsible for the following activities:~~ 1) ~~Establishing and maintaining communications with the Field Monitoring Teams.~~ 2) ~~Recording and reporting field monitoring survey, sample and exposure information.~~	This revision reflects the elimination of the Field Monitoring Team Communicator position. As shown in Attachment 4 , these tasks were reassigned to the Field Monitoring Team Coordinator due to the reduced scope and consequences of accidents associated with defueled reactors.
5.8 Emergency Operations Facility (EOF) 5.8.8 Offsite Field Monitoring Teams	5.8.8 Offsite Field Monitoring Teams The Offsite Filed Monitoring Teams are responsible for the following activities: ... 2) Maintaining communications with the FMT Communicator to report environmental conditions and to obtain event information and instructions.	5.8.8 Offsite Field Monitoring Teams (FMTs) The Offsite ~~FMTed Monitoring Teams~~ are responsible for the following activities: ... 2) Maintaining communications with the FMT ~~Communicator~~ Coordinator to report environmental conditions and to obtain event information and instructions.	This revision reflects the elimination of the Field Monitoring Team Communicator position and reassignment of associated tasks to the Field Monitoring Team Coordinator.
5.8 Emergency Operations Facility (EOF) 5.8.9 HPN Communicator, 5.8.10 Offsite Emergency Lab Analyst	5.8.9 HPN Communicator The HPN Communicator is responsible for the following activities: 1) Monitoring plant and environment radiological data. 2) Maintaining radiological communications with the NRC on the HPN line. 3) Keeping the Radiological Manager informed on NRC requests and reporting activities. 5.8.10 Offsite Emergency Lab Analyst The Offsite Emergency Lab Analyst is responsible for the following activities: 1) Performing environmental sample analysis to monitor and track any releases of radioactivity outside the Protected Area. 2) Maintaining communications with the FMT Communicator to report sample results and to obtain event information and instructions. 3) Performing habitability surveys and maintaining contamination controls at the Lab.	~~5.8.9 HPN Communicator~~ ~~The HPN Communicator is responsible for the following activities:~~ 1) ~~Monitoring plant and environment radiological data.~~ 2) ~~Maintaining radiological communications with the NRC on the HPN line.~~ 3) ~~Keeping the Radiological Manager informed on NRC requests and reporting activities.~~ ~~5.8.10 Offsite Emergency Lab Analyst~~ ~~The Offsite Emergency Lab Analyst is responsible for the following activities:~~ 1) ~~Performing environmental sample analysis to monitor and track any releases of radioactivity outside the Protected Area.~~ 2) ~~Maintaining communications with the FMT Communicator to report sample results and to obtain event information and instructions.~~ 3) ~~Performing habitability surveys and maintaining contamination controls at the Lab.~~	This revision reflects the elimination of the Health Physics Network (HPN) Communicator and Offsite Emergency Lab Analyst positions. As shown in Attachment 4 , the HPN Communicator tasks were reassigned to the Communications Coordinator due to the reduced scope and consequences of accidents associated with defueled reactors. The Offsite Emergency Lab Analyst tasks were eliminated as they are support activities and not required for performance of Emergency Planning Functions. The position is managed and controlled by EIPs.

Current Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
5.8 Emergency Operations Facility (EOF) 5.8.12 Communications Coordinator	The Communications Coordinator is responsible for the following activities: 1) Assisting the Emergency Director in preparing and approving notifications. 2) Overseeing the transmittal and distribution of notifications.	The Communications Coordinator is responsible for the following activities: 1) Assisting the Emergency Director in preparing and approving notifications. 2) Overseeing the transmittal and distribution of notifications. 3) Monitoring plant and environment radiological data. 4) Maintaining radiological communications with the NRC on the HPN line. 5) Keeping the Radiological Manager informed on NRC requests and reporting activities. 6) Transmitting, receiving, and documenting notification information. 7) Notifying corporate offices and individuals of the event.	This revision reflects the reassignment of tasks from the Offsite Communicator eliminated position. Based on reduced scope and consequences of accidents associated with defueled reactors, these tasks can be completed by the Communications Coordinator without reduction in emergency response capability. The reassignment of ERO responsibilities will be further demonstrated through the performance of drills utilizing the revised procedures and staffing (reference Enclosure 2 supplemental action).
5.8 Emergency Operations Facility (EOF) 5.8.13 Offsite Communicator, 5.8.14 Advisor to the County	5.8.13 Offsite Communicator The Offsite Communicator is responsible for the following activities: 1) Transmitting, receiving, and documenting notification information. 2) Notifying corporate offices and individuals of the event. 5.8.14 Advisor to the County The Advisor to the County is responsible for the following activities: 1) Assisting the EOF Director with setup of the EOF. 2) Acting as a technical specialist at the County EOF, informing County response staff members of plant conditions and recommended protective actions. 3) Maintaining awareness of plant conditions and emergency response activities. 4) Assisting in the interface between DCPD and County EOC personnel.	~~5.8.13 Offsite Communicator~~ ~~The Offsite Communicator is responsible for the following activities:~~ ~~1) Transmitting, receiving, and documenting notification information.~~ ~~2) Notifying corporate offices and individuals of the event.~~ 5.8.14 Advisor to the County The Advisor to the County is responsible for the following activities: 1) ~~Assisting the EOF Director with setup of the EOF.~~ Acting as a technical specialist at the County EOF, informing County response staff members of plant conditions and recommended protective actions. 2) Maintaining awareness of plant conditions and emergency response activities. 3) Assisting in the interface between DCPD and County EOC personnel.	This revision reflects the elimination of the Offsite Communicator position and elimination of repeat tasks in the Advisor to the County position. As shown in Attachment 4 , these tasks were either eliminated as repeats or reassigned to the Communications Coordinator due to the reduced scope and consequences of accidents associated with defueled reactors.
5.8 Emergency Operations Facility (EOF) 5.8.16 EOF Security Support, 5.8.17 UDAC Meteorologist, 5.8.18 EOF Security Liaison, and 5.8.19 General Office Technical Liaison	5.8.16 EOF Security Support The EOF Security support is responsible for the following activities: 1) Providing building access controls for the EOF/County EOC. 5.8.17 UDAC Meteorologist The UDAC Meteorologist is responsible for the following activities: 1) Determining current and forecast meteorological information. 5.8.18 EOF Security Liaison The EOF Security Liaison is responsible for the following activities:	~~5.8.16 EOF Security Support~~ ~~The EOF Security support is responsible for the following activities:~~ ~~1) Providing building access controls for the EOF/County EOC.~~ ~~5.8.17 UDAC Meteorologist~~ ~~The UDAC Meteorologist is responsible for the following activities:~~ ~~1) Determining current and forecast meteorological information.~~ ~~5.8.18 EOF Security Liaison~~ ~~The EOF Security Liaison is responsible for the following activities:~~ ~~1) Providing assistance to the TSC Security Advisor and the EOF Director as requested.~~	This revision reflects the elimination of the following positions: EOF Security Support, UDAC Meteorologist, EOF Security Liaison, and General Office Technical Liaison. As shown in Attachment 4 , these tasks were either eliminated or reassigned due to the reduced scope and consequences of accidents associated with defueled reactors. The UDAC Meteorologist and General Office Technical Liaison positions provide support activities not required for performance of Emergency Planning Functions. These are managed and controlled by EIPs.

Current Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
	1) Providing assistance to the TSC Security Advisor and the EOF Director as requested. 5.8.19 General Office Technical Liaison The General Office Technical Liaison is responsible for the following activities: 1) Providing a single point of contact between the EOF and the company emergency operations center. 2) Responding to the company emergency operations center when requested or directed to do so. 3) Coordinating with the Government Relations Coordinator to ensure alignment between DCPD and corporate response.	~~5.8.19 General Office Technical Liaison~~ ~~The General Office Technical Liaison is responsible for the following activities:~~ 1) ~~Providing a single point of contact between the EOF and the company emergency operations center.~~ 2) ~~Responding to the company emergency operations center when requested or directed to do so.~~ 3) ~~Coordinating with the Government Relations Coordinator to ensure alignment between DCPD and corporate response.~~	
5.9 Joint Information Center (JIC) 5.9.2 JIC Director	The JIC Director is responsible for the following activities: ... 4) Coordinating the collection of information and the development of draft media releases and media briefing talking points by the News Writer and Technical Advisors for approval by the PIO.	The JIC Director is responsible for the following activities: ... 4) Coordinating the collection of information and the development of draft media releases and media briefing talking points ~~by the News Writer and Technical Advisors for approval~~ by the PIO.	This revision reflects the elimination of the News Writer and Technical Advisor positions.
5.9 Joint Information Center (JIC) 5.9.3 Public Information Officer (PIO)	The PIO is responsible for the following activities: ... 8) Providing regular communications to the PG&E External Communications Department regarding the status of media briefings and approved and released information, and additional staffing needs.	The PIO is responsible for the following activities: ... 8) Providing regular communications to the PG&E External Communications Department regarding the status of media briefings and approved and released information, and additional staffing needs. 9) Collecting facts and developing media briefing talking points and media releases, as directed using approved information from video conferences, Emergency Notification Forms and tailboard forms. 10) Attending pre-briefings conducted with the SLO County PIO to review the agenda, logistics and key messages used during each media briefing. 11) Review and assess media coverage and NRC Event Reports.	This revision reflects the reassignment of tasks from the News Writer, Assistant PIO, and Technical Advisor - HP eliminated positions. Based on reduced scope and consequences of accidents associated with defueled reactors, these tasks can be completed by the PIO without reduction in emergency response capability. The reassignment of ERO responsibilities will be further demonstrated through the performance of drills utilizing the revised procedures and staffing (reference Enclosure 2 supplemental action).
5.9 Joint Information Center (JIC) 5.9.4 Assistant PIO	5.9.4 Assistant PIO The Assistant PIO is responsible for the following activities: 1) Under direction of the PIO, serving as a PG&E spokesperson. 2) Providing communications to PG&E External Communications Department. 3) Coordinating with the PIO and News Writer to ensure timely and accurate information is released to the public. 4) Attending pre-briefings conducted with the SLO County PIO to review the agenda, logistics and key messages used during each media briefing.	~~5.9.4 Assistant PIO~~ ~~The Assistant PIO is responsible for the following activities:~~ 1) ~~Under direction of the PIO, serving as a PG&E spokesperson.~~ 2) ~~Providing communications to PG&E External Communications Department.~~ 3) ~~Coordinating with the PIO and News Writer to ensure timely and accurate information is released to the public.~~ 4) ~~Attending pre-briefings conducted with the SLO County PIO to review the agenda, logistics and key messages used during each media briefing.~~	This revision reflects the elimination of the Assistant PIO position. As shown in Attachment 4 , the Assistant PIO tasks were either eliminated as repeats or reassigned to the PIO due to the reduced scope and consequences of accidents associated with defueled reactors.

Current Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
	5) Coordinating the development of media releases with the News Writer. 6) Assisting the PIO in coordinating media briefings and any other media interviews including plant visits. 7) Advising the PIO of rumors as reported by the media or the News Media Liaisons. 8) Helping to develop key messages for use with the media and ensuring formality and consistency of Company presentations during media briefings.	~~5) Coordinating the development of media releases with the News Writer.~~ ~~6) Assisting the PIO in coordinating media briefings and any other media interviews including plant visits.~~ ~~7) Advising the PIO of rumors as reported by the media or the News Media Liaisons.~~ ~~8) Helping to develop key messages for use with the media and ensuring formality and consistency of Company presentations during media briefings.~~	
5.9 Joint Information Center (JIC) 5.9.5 Technical Advisor – Health Physics, 5.9.6 Technical Advisor – Operations	5.9.5 Technical Advisor - Health Physics The Technical Advisor -HP is responsible for the following activities: 1) Assisting the News Writer in verifying and writing of approved media briefing talking points and media releases. 2) Coordinating with the EOF and JIC staff for maintaining current status of projected dose, radiological plant conditions, and field monitoring. 3) Analyzing radiological data for the JIC personnel. 4) Describing radiological conditions in layperson's terms during media briefings. 5.9.6 Technical Advisor - Operations The Technical Advisor - OPS is responsible for the following activities: 1) Assisting the News Writer in verifying and writing of approved media briefing talking points and media releases. 2) Providing technical assistance to assure that approved information is accurately described in general and understandable terms for the media briefing talking points and media briefings. 3) Observing the Emergency Director video conference briefings and interpreting technical information for the PIO, Assistant PIO, and the News Writer. 4) Maintaining current information on plant conditions and providing updates to the JIC Director, PIO, and the Company Spokesperson. 5) Reviewing NRC Event Reports for information on event and reports discrepancies to the PIO. 6) Assisting JIC staff to ensure technically correct information is released. 7) Presenting plant information to the media as directed by the PIO.	~~5.9.5 Technical Advisor – Health Physics~~ ~~The Technical Advisor –HP is responsible for the following activities:~~ ~~1) Assisting the News Writer in verifying and writing of approved media briefing talking points and media releases.~~ ~~2) Coordinating with the EOF and JIC staff for maintaining current status of projected dose, radiological plant conditions, and field monitoring.~~ ~~3) Analyzing radiological data for the JIC personnel.~~ ~~4) Describing radiological conditions in layperson's terms during media briefings.~~ ~~5.9.6 Technical Advisor – Operations~~ ~~The Technical Advisor –OPS is responsible for the following activities:~~ ~~1) Assisting the News Writer in verifying and writing of approved media briefing talking points and media releases.~~ ~~2) Providing technical assistance to assure that approved information is accurately described in general and understandable terms for the media briefing talking points and media briefings.~~ ~~3) Observing the Emergency Director video conference briefings and interpreting technical information for the PIO, Assistant PIO, and the News Writer.~~ ~~4) Maintaining current information on plant conditions and providing updates to the JIC Director, PIO, and the Company Spokesperson.~~ ~~5) Reviewing NRC Event Reports for information on event and reports discrepancies to the PIO.~~ ~~6) Assisting JIC staff to ensure technically correct information is released.~~ ~~7) Presenting plant information to the media as directed by the PIO.~~	This revision reflects the elimination of the Technical Advisor positions. As shown in Attachment 4 , the tasks were either eliminated as repeats or reassigned to the PIO due to the reduced scope and consequences of accidents associated with defueled reactors.
5.9 Joint Information Center (JIC)	5.9.7 News Media Liaison - Site The News Media Liaison - Site is responsible for the following activities:	~~5.9.7 News Media Liaison – Site~~ ~~The News Media Liaison – Site is responsible for the following activities:~~	This revision reflects the elimination of the News Media Liaisons and News Writer positions. As shown in Attachment 4 , the News Media Liaisons provide support

Current Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
5.9.7 News Media Liaison – Site, 5.9.8 News Media Liaison – Corporate, 5.9.9 News Writer	- Operating the computer and display system used to project graphics and other information during media briefings. - Assuming the "News Media Liaison - Corporate" responsibilities on an interim basis until relieved by Company news personnel. - Recording any unanswered questions by the Company Spokesperson or PIO during media briefings. - Distributing approved media documents. 5.9.8 News Media Liaison - Corporate The News Media Liaison - Corporate is responsible for the following activities: - Coordinating with media personnel arriving at the JIC and providing approved background information and facility orientation. - Acting as an interface for the External Communications Department for the media in between briefings. - Recording any unanswered questions by the Company Spokesperson or PIO during media briefings. - Advising the PIO of relevant information obtained from the media. - Distributing approved media documents. 5.9.9 News Writer The News Writer is responsible for the following activities: - Collecting facts and developing media briefing talking points and media releases, as directed using approved information from video conferences, Emergency Notification Forms and tailboard forms.	~~Operating the computer and display system used to project graphics and other information during media briefings.~~ ~~Assuming the "News Media Liaison - Corporate" responsibilities on an interim basis until relieved by Company news personnel.~~ ~~Recording any unanswered questions by the Company Spokesperson or PIO during media briefings.~~ ~~Distributing approved media documents.~~ ~~5.9.8 News Media Liaison - Corporate The News Media Liaison - Corporate is responsible for the following activities:~~ ~~Coordinating with media personnel arriving at the JIC and providing approved background information and facility orientation.~~ ~~Acting as an interface for the External Communications Department for the media in between briefings.~~ ~~Recording any unanswered questions by the Company Spokesperson or PIO during media briefings.~~ ~~Advising the PIO of relevant information obtained from the media.~~ ~~Distributing approved media documents.~~ ~~5.9.9 News Writer The News Writer is responsible for the following activities:~~ ~~Collecting facts and developing media briefing talking points and media releases, as directed using approved information from video conferences, Emergency Notification Forms and tailboard forms.~~	activities not required for performance of Emergency Planning Functions. These are managed and controlled by EPIPs. The News Writer task was reassigned to the PIO due to the reduced scope and consequences of accidents associated with defueled reactors.
5.9 Joint Information Center (JIC) 5.9.10 JIC Security	5.9.10 JIC Security The JIC Security is responsible for the following activities: 1) Providing access control for JIC areas.	~~5.9.10 JIC Security The JIC Security is responsible for the following activities:~~ 1) ~~Providing access control for JIC areas.~~	This revision reflects the elimination of the JIC Security position. As shown in Attachment 4 , the JIC Security provide support activities not required for performance of Emergency Planning Functions.
5.10 Transfer of Command and Control Functions	5.10 Transfer of Command and Control Functions The Command and Control functions of Classification, Notification, PARs, and Emergency Exposure Controls may be transferred directly to the TSC or EOF depending on which facility is activated first. If the TSC is activated before the EOF, command and control functions will be transferred from the TSC to the EOF upon activation of that facility. Below is a diagram depicting the transfer process	5.10 Transfer of Command and Control Functions The Command and Control functions of Classification, NRC Notification, ~~PARs~~ , and Emergency Exposure Controls may be transferred directly to the TSC or EOF depending on which facility is activated first. If the TSC is activated before the EOF, the Classification, NRC Notification, and Emergency Exposure Controls command and control functions will be transferred from the TSC to the EOF upon activation of that facility. The Command and Control functions of County/State Notification and PARs transfer only directly to the EOF. Below is a diagram depicting the transfer process	This revision also reflects the performance of State/local notifications and PARs no longer being supported in the TSC by the SEC. These functions are directly transferred from on-shift to the EOF.
5.15 Coordination with Participating San Luis	Initially, the Site Emergency Coordinator, or, once he arrives at the EOF, the Emergency Director will:	~~Initially, the Site Emergency Coordinator, or, once he arrives at the EOF, the~~ Emergency Director will:	This revision reflects the performance of notifications and PARs no longer being supported in the TSC by the SEC.

Current Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
Obispo County Agencies	- Keep the County informed of meteorological conditions, results from pertinent surveys by Company personnel, and conditions at the plant. An Advisor to the County, a Company representative, will be assigned to the County Emergency Operations Center to assist in interpretation of technical information received from DCPP. - Recommend appropriate protective actions to the County.	- Keep the County informed of meteorological conditions, results from pertinent surveys by Company personnel, and conditions at the plant. An Advisor to the County, a Company representative, will be assigned to the County Emergency Operations Center to assist in interpretation of technical information received from DCPP. - Recommend appropriate protective actions to the County.	These functions are directly transferred from on-shift to the EOF.
5.15 Coordination with Participating San Luis Obispo County Agencies	The Emergency Director, through the PIO and the Assistant PIO will establish a schedule and format for updates to the Company Spokesperson, San Luis Obispo County, and other agencies at the County EOC.	The Emergency Director, through the PIO ~~and the Assistant PIO~~ will establish a schedule and format for updates to the Company Spokesperson, San Luis Obispo County, and other agencies at the County EOC.	This revision reflects the elimination of the Assistant PIO.

DCPP E-Plan, Section 5.19, Table 5-1, DCPP On-Shift and Augmented ERO

Emergency Plan Section	Functional Area	Major Tasks	Emergency Positions	Shift Staffing	60 Minute	90 Minute
Current Wording	1. Plant Operations and Assessment of Operational Aspects ^(c)	Control Room Staff	Unit Shift Supervisor (SRO) Operations Advisor (CR/TSC) Control Room Operator (RO) Non-Licensed Operator (NO)	2 --- 4 5	1 --- --- ---	--- --- --- ---
Modified Wording	1. Plant Operations and Assessment of Operational Aspects ^(e)	Control Room Staff	Shift Supervisor (qualified as CFH) ~~Unit Shift Supervisor (SRO)~~ CFH ~~Control Room Operator (RO)~~ NCO ~~Non-Licensed Operator (NO)~~ Operations Advisor (CR/TSC)	1 ~~2~~ 1 ~~5~~ 3 ~~5~~ ---	--- --- --- 1	--- --- --- ---
Reason for Change: Changes to Table 5-1 reflect the changes to the DCPP ERO discussed in this Attachment. Evaluation of the On-Shift ERO position responsibilities is performed in the Post-Shutdown On-Shift Staffing Analysis in Appendix F of Attachment 3 . This revision is further discussed in Section 5.2.1 . Evaluation of the ERO position responsibilities is performed in Attachment 4 , ERO Task Analysis, including an evaluation of which responsibilities can be deleted and which can be reassigned. The reassignment of ERO responsibilities will be further demonstrated through the performance of drills using the revised procedures and staffing (reference Enclosure 2 supplemental action).						

DCPP E-Plan, Section 5.19, Table 5-1, DCPPE On-Shift and Augmented ERO

Emergency Plan Section	Functional Area	Major Tasks	Emergency Positions	Shift Staffing	60 Minute	90 Minute
Current Wording	2. Emergency Direction and Control	Classification	Shift Manager Site Emergency Coordinator (TSC) Emergency Director (EOF)	1 --- ---	--- --- ---	--- 1 1
Modified Wording	2. Emergency Direction and Control	Command and Control	Shift Supervisor/ Emergency Director Site Emergency Coordinator (TSC) Emergency Director (EOF) EOF Director (EOF)	1* --- --- ---	--- --- --- ---	--- 1 1 1
Reason for Change: Changes to Table 5-1 reflect the changes to the DCPPE ERO discussed in this Attachment. Evaluation of the On-Shift ERO position responsibilities is performed in the Post-Shutdown On-Shift Staffing Analysis in Appendix F of Attachment 3. Evaluation of the ERO position responsibilities is performed in Attachment 4, ERO Task Analysis, including an evaluation of which responsibilities can be deleted and which can be reassigned. This revision is further discussed in Section 5.2.2. The reassignment of ERO responsibilities will be further demonstrated through the performance of drills using the revised procedures and staffing (reference Enclosure 2 supplemental action).						

DCPP E-Plan, Section 5.19, Table 5-1, DCPPE On-Shift and Augmented ERO

Emergency Plan Section	Functional Area	Major Tasks	Emergency Positions	Shift Staffing	60 Minute	90 Minute
Current Wording	3. Notification & Communication	Licensee, Local/State Federal	Shift Phone Talker (SRO/RO/NO) Shift Phone Talker (SRO/RO)	1 1	--- ---	--- ---
Modified Wording	3. Notification & Communication	Licensee, Local/State, Federal ~~Federal~~	CFH/NCO ~~Shift Phone Talker (SRO/RO/NO)~~ ~~Shift Phone Talker (SRO/RO)~~	1* ~~1~~ ~~1~~	--- --- ---	--- --- ---
Reason for Change: Changes to Table 5-1 reflect the changes to the DCPPE ERO discussed in this Attachment. Evaluation of the On-Shift ERO position responsibilities is performed in the Post-Shutdown On-Shift Staffing Analysis in Appendix F of Attachment 3. Evaluation of the ERO position responsibilities is performed in Attachment 4, ERO Task Analysis, including an evaluation of which responsibilities can be deleted and which can be reassigned. This revision is further discussed in Section 5.2.3. The reassignment of ERO responsibilities will be further demonstrated through the performance of drills using the revised procedures and staffing (reference Enclosure 2 supplemental action).						

DCPP E-Plan, Section 5.19, Table 5-1, DCPPE On-Shift and Augmented ERO

Emergency Plan Section	Functional Area	Major Tasks	Emergency Positions	Shift Staffing	60 Minute	90 Minute
Current Wording	3. Notification & Communication		Agency/ENS Communicator (TSC) Communications Advisor (TSC) Communications Coordinator (EOF) Offsite Communicator (EOF)	--- --- --- ---	--- --- --- ---	1 1 1 1
Modified Wording	3. Notification & Communication		~~Agency/ENS Communicator (TSC)~~ ~~Communications Advisor (TSC)~~ Communications Coordinator (EOF) ~~Offsite Communicator~~ Engineering Liaison (EOF) Government Relations Coord. (EOF) Advisor to the County (EOF)	--- --- --- --- --- ---	--- --- --- --- --- ---	1 ~~1~~ 1 1 1 1
Reason for Change: Changes to Table 5-1 reflect the changes to the DCPPE ERO discussed in this Attachment. Evaluation of the On-Shift ERO position responsibilities is performed in the Post-Shutdown On-Shift Staffing Analysis in Appendix F of Attachment 3. Evaluation of the ERO position responsibilities is performed in Attachment 4, ERO Task Analysis, including an evaluation of which responsibilities can be deleted and which can be reassigned. This revision is further discussed in Section 5.2.3. The reassignment of ERO responsibilities will be further demonstrated through the performance of drills using the revised procedures and staffing (reference Enclosure 2 supplemental action).						

DCPP E-Plan, Section 5.19, Table 5-1, DCPPE On-Shift and Augmented ERO

Emergency Plan Section	Functional Area	Major Tasks	Emergency Positions	Shift Staffing	60 Minute	90 Minute
Current Wording	4. Radiological Assessment	Dose Assessment	WC Shift Foreman (SRO)	1*	---	---
			Rad Data Processor (TSC)	---	---	1
			Radiological Manager (EOF)	---	---	1
			Dose Assessor (EOF)	---	---	1
		Offsite Surveys	FMT Leader (RP Technicians)	---	---	2
			FMT Driver	---	---	2
		On-site (out-of-plant) Surveys	Team Leader (RP Technician)	---	1	---
			Team Driver	---	1	---
		In-plant Surveys	RP Technician	2	2	2
Modified Wording	4. Radiological Assessment	Dose Assessment	~~WC Shift Foreman (SRO)~~ CFH/RP Technician	1*	---	---
			~~Rad Data Processor~~ (TSC)	---	---	1
			Radiological Manager (EOF)	---	---	1
			Dose Assessor (EOF)	---	---	1
		Offsite Surveys	FMT Coordinator (EOF)	---	---	1
			FMT Leader (RP Technicians) (EOF)	---	---	2
			FMT Driver (EOF)	---	---	2
			On-site (out-of-plant) Surveys	~~Team Leader~~ (RP Technician) OSC	---	1*
			~~Team Driver~~ (EOF)			
		In-plant Surveys	RP Technician (OSC)	2	1	---
			Chemistry			
			Radiological Advisor (TSC)	---	---	1
		Reason for Change: Changes to Table 5-1 reflect the changes to the DCPPE ERO discussed in this Attachment. Evaluation of the On-Shift ERO position responsibilities is performed in the Post-Shutdown On-Shift Staffing Analysis in Appendix F of Attachment 3 . Evaluation of the ERO position responsibilities is performed in Attachment 4 , ERO Task Analysis, including an evaluation of which responsibilities can be deleted and which can be reassigned. This revision is further discussed in Section 5.2.4 . The reassignment of ERO responsibilities will be further demonstrated through the performance of drills using the revised procedures and staffing (reference Enclosure 2 supplemental action).				

DCPP E-Plan, Section 5.19, Table 5-1, DCPPE On-Shift and Augmented ERO

Emergency Plan Section	Functional Area	Major Tasks	Emergency Positions	Shift Staffing	60 Minute	90 Minute
Current Wording	5. Plant System Engineering, Repair, and Corrective Actions	Technical Support	WC Shift Foreman (SRO) / STA	1	---	---
		Repair and Corrective Actions	Reactor Engineer (TSC)	---	---	1
			Electrical Engineer (TSC)	---	1	---
			Mechanical Engineer (TSC)	---	1	---
			Mech. Maintenance Coordinator (OSC)	---	1	---
			Elec. Maintenance Coordinator (OSC)	---	1	---
			I&C. Maintenance Coordinator (OSC)	---	---	1
			OSC Director (OSC)	---	---	1
			Site RP Coordinator (OSC)	---	1	---
			Modified Wording	5. Plant System Engineering, Repair, and Corrective Actions	Technical Support	~~WC Shift Foreman~~ CFH
Repair and Corrective Actions	~~Reactor Engineer~~ Engineering Advisor (TSC)	---			---	1
	~~Electrical Engineer~~ Operations Advisor (CR/TSC)	2---			1*	---
	~~Mechanical Engineer~~ Radiological Advisor (TSC)	---			---	1*
	~~Mech. Maintenance Coordinator~~ (OSC)	---			---	1
	~~Elec. Maintenance Coordinator~~ (OSC)					
	~~I&C. Maintenance Coordinator~~ (OSC)					
	~~OSC Director~~ (OSC)					
	~~Site RP Coordinator~~ (OSC)					
	Reason for Change: Changes to Table 5-1 reflect the changes to the DCPPE ERO discussed in this Attachment. Evaluation of the On-Shift ERO position responsibilities is performed in the Post-Shutdown On-Shift Staffing Analysis in Appendix F of Attachment 3 . Evaluation of the ERO position responsibilities is performed in Attachment 4 ERO Task Analysis, including an evaluation of which responsibilities can be deleted and which can be reassigned. This revision is further discussed in Section 5.2.5 . The reassignment of ERO responsibilities will be further demonstrated through the performance of drills using the revised procedures and staffing (reference Enclosure 2 supplemental action).					

DCPP E-Plan, Section 5.19, Table 5-1, DCPPE On-Shift and Augmented ERO

Emergency Plan Section	Functional Area	Major Tasks	Emergency Positions	Shift Staffing	60 Minute	90 Minute
Current Wording	6. In-Plant PAs	Radiation Protection	RP Technician	2*	1	1
Modified Wording	6. In-Plant Protective Actions	Radiation Protection	RP Technicians (OSC)	2*	1	4---
Reason for Change: Changes to Table 5-1 reflect the changes to the DCPPE ERO discussed in this Attachment. Evaluation of the On-Shift ERO position responsibilities is performed in the Post-Shutdown On-Shift Staffing Analysis in Appendix F of Attachment 3. Evaluation of the ERO position responsibilities is performed in Attachment 4, ERO Task Analysis, including an evaluation of which responsibilities can be deleted and which can be reassigned. This revision is further discussed in Section 5.2.6. The reassignment of ERO responsibilities will be further demonstrated through the performance of drills using the revised procedures and staffing (reference Enclosure 2 supplemental action).						

DCPP E-Plan, Section 5.19, Table 5-1, DCPP On-Shift and Augmented ERO

Emergency Plan Section	Functional Area	Major Tasks	Emergency Positions	Shift Staffing		
Current Wording			TOTAL:	22	11	19
Modified Wording			TOTAL:	2212	443	4918
Reason for Change: Changes to Table 5-1 reflect the changes to the DCPP On-Shift ERO discussed in this Attachment. Evaluation of the On-Shift ERO position responsibilities is performed in the Post-Shutdown On-Shift Staffing Analysis in Appendix F of Attachment 3. Evaluation of the ERO position responsibilities is performed in Attachment 4, ERO Task Analysis, including an evaluation of which responsibilities can be deleted and which can be reassigned. This revision is further discussed in Section 5.2. The reassignment of ERO responsibilities will be further demonstrated through the performance of drills using the revised procedures and staffing (reference Enclosure 2 supplemental action).						

DCPP E-Plan

Emergency Plan Section	Current Wording			Proposed Wording			Reason for Change
5.20 Table 5-2, Augmented ERO Minimum Staffing for Facility Activation	Emergency Response Facility	Minimum Staff		Emergency Response Facility	Minimum Staff		Evaluation of the ERO position responsibilities is performed in Attachment 4, ERO Task Analysis, including an evaluation of which responsibilities can be deleted and which can be reassigned. See also Section 5.3 for further discussion of ERO positions deleted.
	TSC	Site Emergency Coordinator Agency/ENS Communicator Communications Advisor Rad Data Processor Reactor Engineer		TSC	Site Emergency Coordinator Radiological Advisor Engineering Advisor Operations Advisor ~~Agency/ENS Communicator~~ ~~Communications Advisor~~ ~~Rad Data Processor~~ ~~Reactor Engineer~~ Security Advisor		
	OSC	OSC Director		OSC	OSC Director RP Technicians		
	EOF	Emergency Director Communications Coordinator Offsite Communicator Radiological Manager Dose Assessor		EOF	Emergency Director EOF Director Radiological Manager ~~Offsite Communicator~~ Dose Assessor FMT Coordinator Offsite FMT Engineering Liaison Communications Coordinator Advisor to the County Government Relations Coordinator		
	JIC	None		JIC	None		

Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
5.22 Figure 5-2, TSC Organization	Emergency Director (EOF) Site Emergency Coordinator TSC Director Control Room OSC (See OSC Chart) Radiological Advisor Maintenance Advisor Engineering Advisor Ops Advisor Security Advisor Radiological Data Processor PPC Operator Mechanical Engineer Electrical Engineer Reactor Engineer Communications Advisor OPS Communicator – CR Agency/ENS Communicator	Emergency Director (EOF) Site Emergency Coordinator ~~TSC Director~~ Control Room OSC (See OSC Chart) Radiological Advisor ~~Maintenance Advisor~~ Engineering Advisor Ops Advisor Security Advisor ~~Radiological Data Processor~~ ~~PPC Operator~~ ~~Mechanical Engineer~~ ~~Electrical Engineer~~ ~~Reactor Engineer~~ ~~Communications Advisor~~ ~~OPS Communicator – CR~~ ~~Agency/ENS Communicator~~	This revision removes the eliminated positions from the DCP E-Plan. Evaluation of the ERO position responsibilities is performed in Attachment 4 , ERO Task Analysis, including an evaluation of which responsibilities can be deleted and which can be reassigned. See also Section 5.3 for further discussion of ERO positions deleted.
5.23 Figure 5-3, OSC Organization	Site Emergency Coordinator (TSC) OSC Director Team Coordinator Mechanical Coordinator Electrical Coordinator I&C Coordinator Site RP Coordinator Chemistry Coordinator Operations Coordinator Mechanical Personnel Electrical Personnel I&C Maint Personnel C&RP Technicians (3) OSC Operators C&RP Technicians (3)	Site Emergency Coordinator (TSC) OSC Director ~~Team Coordinator~~ ~~Mechanical Coordinator~~ ~~Electrical Coordinator~~ ~~I&C Coordinator~~ ~~Site RP Coordinator~~ ~~Chemistry Coordinator~~ ~~Operations Coordinator~~ ~~Mechanical Personnel~~ ~~Electrical Personnel~~ ~~I&C Maint Personnel~~ ~~C&RP Technicians (32)~~ ~~OSC Operators~~ ~~C&RP Technicians (3)~~	This revision removes the eliminated positions from the DCP E-Plan. Evaluation of the ERO position responsibilities is performed in Attachment 4 , ERO Task Analysis, including an evaluation of which responsibilities can be deleted and which can be reassigned. See also Section 5.3 for further discussion of ERO positions deleted.
5.24 Figure 5-4, EOF Organization	Emergency Director EOF Director Security Liaison Advisor to the County UDAC Radiological Manager HPN Communicator FMT Coordinator Dose Assessment Coordinator Dose Assessor Offsite Emergency Lab Analyst FMT Communicator 1 On-Site FMT* Management Onsite FMT (1)	Emergency Director EOF Director ~~Security Liaison~~ Advisor to the County ~~UDAC~~ Radiological Manager ~~HPN Communicator~~ FMT Coordinator ~~Dose Assessment Coordinator~~ Dose Assessor ~~Offsite Emergency Lab Analyst~~ ~~FMT Communicator~~ ~~1 On-Site FMT*~~ ~~Management Onsite FMT (1)~~	This revision removes the eliminated positions from the DCP E-Plan. Evaluation of the ERO position responsibilities is performed in Attachment 4 , ERO Task Analysis, including an evaluation of which responsibilities can be deleted and which can be reassigned. See also Section 5.3 for further discussion of ERO positions deleted.

Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
	C&RP Tech (1) 2 Off-Site FMTs Management Onsite FMT (2) C&RP Tech (2) UDAC Meteorologist Communications Coor. Offsite Communicator Engineering Liaisons (2) Government Relations Coordinator EOF Security General Office Technical Liaison (GOTL) * On-Site FMT initially reports to OSC Site Radiation Protection Coordinator.	~~C&RP Tech (1)~~ 2 Off-Site FMTs Management Onsite FMT (2) ~~C&RP Tech (2)~~ ~~UDAC Meteorologist~~ Communications Coor. ~~Offsite Communicator~~ Engineering Liaisons (21) Government Relations Coordinator ~~EOF Security~~ ~~General Office Technical Liaison (GOTL)~~ ~~* On-Site FMT initially reports to OSC Site Radiation Protection Coordinator.~~	
5.25 Figure 5-5, JIC Organization	Emergency Director (EOF) Company Spokesperson JIC Director Public Information Officer Assistant PIO News Writer News Media Liaison – Corp. Technical Advisor – HP Technical Advisor – OPS News Media Liaison – Site JIC Security	Emergency Director (EOF) Company Spokesperson JIC Director Public Information Officer ~~Assistant PIO~~ ~~News Writer~~ ~~News Media Liaison – Corp.~~ ~~Technical Advisor – HP~~ ~~Technical Advisor – OPS~~ ~~News Media Liaison – Site~~ ~~JIC Security~~	This revision removes the eliminated positions from the DCPPE-Plan. Evaluation of the ERO position responsibilities is performed in Attachment 4 , ERO Task Analysis, including an evaluation of which responsibilities can be deleted and which can be reassigned. See also Section 5.3 for further discussion of ERO positions deleted.
6.1 Activation of the Emergency Response Organization (ERO)	The Shift Manager will immediately initiate actions to limit the consequences of the event and to return the plant to a safe and stable condition...The Shift Manager may activate all or a portion of the full ERO to limit the consequences of an event prior to an Alert or higher emergency classification level.	The Shift ~~SupervisorManager~~ will immediately initiate actions to limit the consequences of the event and to return the plant to a safe and stable condition...The Shift ~~SupervisorManager~~ may activate all or a portion of the full ERO to limit the consequences of an event prior to an Alert or higher emergency classification level.	This revision is consistent with planned changes to the DCPPE Technical Specifications that will revise the minimum shift staffing requirements at DCPPE (i.e., the Permanently Defueled Technical Specification LAR) to rename the existing Shift Manager as the Shift Supervisor.
6.2 Response of On-Site Personnel to Emergency Warning Signals 6.2.1 Site Emergency Signal	Except in cases of a severe emergency when the Shift Manager is not readily available, sounding of the site emergency signal requires Shift Manager approval.	Except in cases of a severe emergency when the Shift ~~SupervisorManager~~ is not readily available, sounding of the site emergency signal requires Shift ~~SupervisorManager~~ approval.	This revision is consistent with planned changes to the DCPPE Technical Specifications that will revise the minimum shift staffing requirements at DCPPE (i.e., the Permanently Defueled Technical Specification LAR) to rename the existing Shift Manager as the Shift Supervisor.
6.2 Response of On-Site Personnel to Emergency Warning Signals	6.2.2 Containment Evacuation Signal The containment evacuation signal uses the site emergency signal warbler and warning lights within the containment. When this signal is initiated, personnel in the containment are instructed to immediately leave the containment and report to Access Control.	~~6.2.2 Containment Evacuation Signal~~ ~~The containment evacuation signal uses the site emergency signal warbler and warning lights within the containment. When this signal is initiated, personnel in the containment are instructed to immediately leave the containment and report to Access Control.~~	This revision reflects the elimination of the Containment Evacuation Signal. The permanently shutdown and defueled reactors obviate the need for a radiological-related evacuation from

Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
6.2.2 Containment Evacuation Signal			the containment buildings. The SNF is located in the SFPs within the fuel handling building, which is addressed by the Criticality Monitor as discussed in DCPP E-Plan Section 6.2.4 .
6.5 Assessment Actions	This Section contains a more detailed discussion of the four most important assessment functions namely: - The proper functioning of emergency cooling systems for emergencies involving possible degradation of the core heat sink - The assessment of core condition in such a circumstance - The estimation of the magnitude of a release, and - The determination of the environmental consequences of a release	This Section contains a more detailed discussion of the four most important assessment functions namely: - The proper functioning of ~~emergency~~SFP cooling systems for emergencies involving possible degradation of the ~~core~~spent fuel heat sink - The assessment of ~~core~~fuel condition in such a circumstance - The estimation of the magnitude of a release, and - The determination of the environmental consequences of a release	This revision reflects the permanent shutdown condition with all fuel removed from the reactors. The reactor core functions are replaced with SFP function assessment.
6.5 Assessment Actions 6.5.1 Verifying Proper Operation of the Emergency Core Cooling System (ECCS)	6.5.1 Verifying Proper Operation of the Emergency Core Cooling System (ECCS) The design basis of the ECCS is to prevent a radioactive release by protecting the three major fission product barriers: the fuel cladding, the reactor coolant system (RCS) piping, and the containment structure. A breach of all three barriers is necessary before radioactive contamination is released to the atmosphere that might pose a hazard to the health and safety of the public. If a Loss of Coolant Accident (LOCA) or Steam Generator Tube Rupture (SGTR) occurs, the reactor protection system will automatically trip the reactor and initiate the ECCS. In the event of a reactor accident, the Shift Foreman, with the assistance of the operating crew, will ensure the reactor is tripped and will enter the Emergency Operating Procedures (EOPs). The EOPs: - Verify the reactor is shutdown - Verify the operation of the ECCS equipment - Diagnose the accident - Provide corrective actions to mitigate or alleviate the problem If the expected action is not obtained or the equipment does not function properly, the EOPs direct alternate, remedial responses. Criteria for upgrading to a General Emergency during a LOCA event are found in the Emergency Action Levels (EAL) and Appendix D.	6.5.1 Verifying Proper Operation of the ~~Emergency Core~~Spent Fuel Pool Cooling System (~~ECCS~~) The design basis of the ~~ECCS~~SFP Cooling System is to maintain a water inventory in the SFP sufficient to: keep the spent fuel immersed, support iodine decontamination factor assumptions, and provide for reactivity control~~prevent a radioactive release by protecting the three major fission product barriers: the fuel cladding, the reactor coolant system (RCS) piping, and the containment structure. A breach of all three barriers is necessary before radioactive contamination is released to the atmosphere that might pose a hazard to the health and safety of the public. If a Loss of Coolant Accident (LOCA) or Steam Generator Tube Rupture (SGTR) occurs, the reactor protection system will automatically trip the reactor and initiate the ECCS.~~ In the event of a loss of SFP level~~reactor accident~~, the ~~Shift Foreman~~CFH, with the assistance of the operating crew, will ~~ensure the reactor is tripped and will~~ enter the Emergency Operating Procedures (EOPs). The EOPs: ~~Verify the reactor is shutdown~~ - Verify the operation of the ~~ECCS~~SFP Cooling System equipment - Diagnose the ~~accident~~event - Provide corrective actions to mitigate or alleviate the problem If the expected action is not obtained or the equipment does not function properly, the EOPs direct alternate, remedial responses. Criteria for upgrading to a General Emergency during a ~~LOCA~~loss of SFP level event are found in the Emergency Action Levels (EAL) and Appendix D.	This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. The ECCS does not support operation of the SFPs. Instead, the SFP Cooling System is relied upon. This revision also reflects the reactor-related accidents that are longer applicable for a permanently shutdown and defueled site.
6.5 Assessment Actions 6.5.2 Assessing Challenges to Fission Product Barriers	6.5.2 Assessing Challenges to Fission Product Barriers During the implementation of the EOPs, the Work Control Shift Foreman is responsible for monitoring the reactor's critical safety functions to ensure that the remaining fission product barriers are not breached. These functions are: - Subcriticality - Verifying the reactor is shut down - prevent clad failure - Core Cooling - Ensuring the reactor core is being cooled - prevent clad or RCS failure	6.5.2 Assessing ~~Challenges to Fission Product Barriers~~Fuel Condition During the implementation of the EOPs, the ~~Work Control Shift Foreman~~CFH is responsible for monitoring the ~~reactor's critical safety functions to ensure that the remaining fission product barriers are not breached~~fuel condition. These functions are: ~~Subcriticality - Verifying the reactor is shut down - prevent clad failure~~ ~~Core Cooling - Ensuring the reactor core is being cooled - prevent clad or RCS failure~~	This deletion reflects the functions that are no longer applicable for a permanently shutdown and defueled site. The reactor critical safety functions do not support operation of the SFPs. Instead, the SFP Cooling System is relied upon to maintain adequate fuel condition.

Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
	- Heat Sink - Ensuring the heat in the reactor is being dissipated - prevent clad or RCS failure or Containment failure - RCS Integrity - Monitoring the reactor temperature to prevent thermal shock - prevent RCS failure - Containment - Monitoring containment parameters to ensure containment integrity - prevent Containment failure - RCS Water Inventory - Monitoring RCS water levels - prevent clad or RCS failure Upon completion of the initial accident diagnosis, the Work Control Shift Foreman will notify the Shift Foreman of the critical safety function status. If a safety function is threatened, an alternate EOP functional restoration procedure will be used to mitigate the problem.	~~Heat Sink - Ensuring the heat in the reactor is being dissipated - prevent clad or RCS failure or Containment failure~~ ~~RCS Integrity - Monitoring the reactor temperature to prevent thermal shock - prevent RCS failure~~ ~~Containment - Monitoring containment parameters to ensure containment integrity - prevent Containment failure~~ ~~RCS Water Inventory - Monitoring RCS water levels - prevent clad or RCS failure~~ Upon completion of the initial ~~accident~~event diagnosis, the ~~Work Control Shift Foreman~~CFH will notify the Shift ~~Foreman~~Supervisor of the ~~critical safety function~~fuel status. If ~~a safety function~~the fuel condition is threatened, an ~~alternate EOP functional restoration~~mitigating procedure will be used to mitigate the problem.	This revision also reflects the changes to the DCCP On-Shift ERO discussed in this Attachment. Evaluation of the On-Shift ERO position responsibilities is performed in the Post-Shutdown On-Shift Staffing Analysis in Appendix F of Attachment 3 .
6.5 Assessment Actions 6.5.3 Assessing Core Damage	6.5.3 Assessing Fuel Damage Preliminary core damage assessment uses containment radiation levels, core exit thermocouple temperatures and containment hydrogen levels to estimate the type and amount of potential core damage. As available, Reactor Vessel Level Instrumentation System (RVLIS), hot leg Resistance Temperature Detector (RTDs) and source range monitors (SRMs) are used to confirm the reasonableness of the containment radiation and core exit thermocouple based damage estimates. Long-term core damage assessment methodology uses reactor coolant sample analysis to determine the extent of core damage more accurately.	~~6.5.3 Assessing Fuel Damage~~ ~~Preliminary core damage assessment uses containment radiation levels, core exit thermocouple temperatures and containment hydrogen levels to estimate the type and amount of potential core damage. As available, Reactor Vessel Level Instrumentation System (RVLIS), hot leg Resistance Temperature Detector (RTDs) and source range monitors (SRMs) are used to confirm the reasonableness of the containment radiation and core exit thermocouple based damage estimates.~~ ~~Long-term core damage assessment methodology uses reactor coolant sample analysis to determine the extent of core damage more accurately.~~	This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. The reactor-related systems do not support operation of the SFPs. Instead, the SFP Cooling System is relied upon, as discussed next above.
6.5 Assessment Actions 6.5.4 Assessing Release Magnitude	During the initial stage of an off-site release, the Work Control Shift Foreman will make a preliminary dose assessment calculation of any off-site release to determine the accident classification per Emergency Plan Implementing Procedures.	During the initial stage of an off-site release, the ~~Work Control Shift Foreman~~CFH will make a preliminary dose assessment calculation of any off-site release to determine the accident classification per Emergency Plan Implementing Procedures.	This revision reflects the elimination of the Work Control Shift Foreman position. Due to the reduced scope and consequences of accidents associated with defueled reactors, the Work Control Shift Foreman assessment responsibilities have been reassigned to the CFH.
6.6 Overview of the Assessment and Monitoring Program 6.6.5 Performing General Monitoring On-Site	Where it is not possible to reach downwind monitoring locations at the 0.5 mile distance, it will be necessary to move in either closer to the reactor, or farther away. ... These personnel will then recommend protective actions, as appropriate, to the individual with Command and Control: Shift Manager, Site Emergency Coordinator, or Emergency Director. The individual with Command and Control will make the decision to notify appropriate Company and County personnel regarding release status and make appropriate protective action recommendations.	Where it is not possible to reach downwind monitoring locations at the 0.5 mile distance, it will be necessary to move in either closer to the ~~reactor~~SFPs, or farther away. ... These personnel will then recommend protective actions, as appropriate, to the individual with Command and Control: Shift ~~Manager~~Supervisor, ~~Site Emergency Coordinator~~, or Emergency Director. The individual with Command and Control will make the decision to notify appropriate Company and County personnel regarding release status and make appropriate protective action recommendations.	This revision reflects the source term being in the SFPs instead of in the reactor for a permanently shutdown and defueled site. This revision also reflects the performance of PARs no longer being supported in the TSC. This function is directly transferred from on-shift to the EOF.

Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
6.7 On-Site Protective Actions 6.7.1 Alerting of On-Site Personnel	Supplementary alerting mechanisms for limited areas include the fire alarm, criticality monitor, and containment evacuation signals. A physical description of these alarm signals is included in Section 7 of the Emergency Plan.	Supplementary alerting mechanisms for limited areas include the fire alarm, and criticality monitor, ~~and containment evacuation~~ signals. A physical description of these alarm signals is included in Section 7 of the Emergency Plan.	This revision reflects the elimination of the Containment Evacuation Signal in DCPP E-Plan Section 6.2.2 . The permanently shutdown and defueled reactors obviate the need for a radiological-related evacuation from the containment buildings. The SNF is located in the SFPs within the fuel handling building, which is addressed by the Criticality Monitor as discussed in DCPP E-Plan Section 6.2.4 .
6.7 On-Site Protective Actions 6.7.3.1 Evacuation Criteria 6.7.3.2 Evacuation Route Considerations	6.7.3.1 Evacuation Criteria The decision to evacuate non-essential personnel shall be made by the Shift Manager until relieved by the Site Emergency Coordinator. ... The Shift Manager or Site Emergency Coordinator's decision to evacuate non-essential personnel will be based on the desire to protect the health and safety of these individuals within the constraints of the situation. 6.7.3.2 Evacuation Route Considerations ... The decision on which route and rendezvous point to be used shall be made by the Shift Manager or Site Emergency Coordinator.	6.7.3.1 Evacuation Criteria The decision to evacuate non-essential personnel shall be made by the Shift ~~Manager~~Supervisor until relieved by the Site Emergency Coordinator. ... The Shift ~~Manager~~Supervisor or Site Emergency Coordinator's decision to evacuate non-essential personnel will be based on the desire to protect the health and safety of these individuals within the constraints of the situation. 6.7.3.2 Evacuation Route Considerations ... The decision on which route and rendezvous point to be used shall be made by the Shift ~~Manager~~Supervisor or Site Emergency Coordinator.	This revision is consistent with planned changes to the DCPP Technical Specifications that will revise the minimum shift staffing requirements at DCPP (i.e., the Permanently Defueled Technical Specification LAR) to rename the existing Shift Manager as the Shift Supervisor.
6.7 On-Site Protective Actions 6.7.3.4 Evacuation Procedure	1) The Shift Manager or Site Emergency Coordinator will authorize the evacuation and determine which route and off-site assembly areas shall be used. This information will be transmitted to the Evacuation Coordinator, appointed by the Shift Manager or Site Emergency Coordinator.	1) The Shift ~~Manager~~ Supervisor or Site Emergency Coordinator will authorize the evacuation and determine which route and off-site assembly areas shall be used. This information will be transmitted to the Evacuation Coordinator, appointed by the Shift ~~Manager~~ Supervisor or Site Emergency Coordinator.	This revision is consistent with planned changes to the DCPP Technical Specifications that will rename the existing Shift Manager as the Shift Supervisor.
6.8 Off-Site Protective Actions 6.8.2.1 Public Protective Actions	The Shift Manager, Site Emergency Coordinator, or Emergency Director should recommend protective actions based on the following criteria	The Shift ~~Manager~~ Supervisor , ~~Site Emergency Coordinator~~ , or Emergency Director should recommend protective actions based on the following criteria	This revision is consistent with planned changes to the DCPP Technical Specifications that will rename the existing Shift Manager as the Shift Supervisor. This deletion also reflects the performance of PARs no longer being supported in the TSC. This function is directly transferred from on-shift to the EOF.
6.8 Off-Site Protective Actions 6.8.4 Emergency Personnel Exposure	During an emergency and prior to arrival of the Emergency Director, the Shift Manager and Site Emergency Coordinator can authorize emergency exposure in excess of 10 CFR 20 limits.	During an emergency and prior to arrival of the Emergency Director, the Shift ~~Manager~~ Supervisor and Site Emergency Coordinator can authorize emergency exposure in excess of 10 CFR 20 limits.	This revision is consistent with planned changes to the DCPP Technical Specifications that will revise the minimum shift staffing requirements at DCPP (i.e., the Permanently Defueled Technical

Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
			Specification LAR) to rename the existing Shift Manager as the Shift Supervisor.
7.1.1 Control Room 7.1.1.1 Location and Description	The Control Room is common to Units 1 and 2 and is located at the 140' elevation of the Auxiliary Building as shown below. The Shift Manager's office is located adjacent to the Control Room.	The Control Room is common to Units 1 and 2 and is located at the 140' elevation of the Auxiliary Building as shown below. The Shift ~~Manager's~~ Supervisor's office is located adjacent to the Control Room.	This revision is consistent with planned changes to the DCCP Technical Specifications that will rename the existing Shift Manager as the Shift Supervisor.
7.1.1 Control Room 7.1.1.2 Emergency Function	Following activation of the TSC, overall control of on-site activities will be transferred to the TSC. If the TSC is activated before the EOF, then the TSC will assume responsibilities for communications with off-site agencies until relieved by the EOF. The Control Room will then be headquarters of the on-site Operations Coordinator, and the major Control Room activity will be operation of plant equipment to mitigate the consequences of the emergency	Following activation of the TSC, overall control of on-site activities will be transferred to the TSC. ~~If the TSC is activated before the EOF, then the TSC will assume responsibilities for communications with off-site agencies until relieved by the EOF.~~ The Control Room will then be headquarters of the on-site Operations Coordinator, and the major Control Room activity will be operation of plant equipment to mitigate the consequences of the emergency	This revision also reflects the performance of notifications and PARs no longer being supported in the TSC by the SEC. These functions are directly transferred from on-shift to the EOF.
7.1.1 Control Room 7.1.1.3 Habitability Objectives	The Control Room is designed to be habitable throughout the course of a design-basis accident. The Control Room shielding and ventilation system is designed to limit post-accident doses to 5 rem TEDE for the duration of the accident. The Control Room is provided with a Design Class I Criteria Ventilation System. The design of the system includes provisions for: 1. Protection from smoke generated inside or outside the Control Room area. 2. Protection from airborne radioactivity outside the Control Room and provisions for cleanup of activity trapped in the room. 3. Protection from airborne toxic gas outside the Control Room. 4. Provisions for limiting carbon dioxide buildup inside the Control Room during periods when airborne contaminants prevent use of outside makeup air.	The Control Room is designed to be habitable throughout the course of a design-basis accident, although no credit is taken for the shielding or ventilation features in the design basis accident calculation. ~~The Control Room shielding and ventilation system is designed to limit post-accident doses to 5 rem TEDE for the duration of the accident.~~ ~~The Control Room is provided with a Design Class I Criteria Ventilation System. The design of the system includes provisions for:~~ 1. ~~Protection from smoke generated inside or outside the Control Room area.~~ 2. ~~Protection from airborne radioactivity outside the Control Room and provisions for cleanup of activity trapped in the room.~~ 3. ~~Protection from airborne toxic gas outside the Control Room.~~ 4. ~~Provisions for limiting carbon dioxide buildup inside the Control Room during periods when airborne contaminants prevent use of outside makeup air.~~	This deletion reflects the change in Control Room ventilation system or shielding credit during the PSEP. The FHA in the fuel handling building does not rely on the Control Room ventilation system or shielding to meet regulatory requirements.
7.1.2 Hot Shutdown Panel 7.1.2.2 Emergency Function	The hot shutdown panel contains the essential indicator and controls to maintain a unit in hot standby condition for an extended time period. The hot shutdown panel is primarily intended to be used for a situation in which smoke or toxic gas makes the Control Room temporarily uninhabitable. In such a circumstance, the operators are instructed to trip the reactor as they leave the Control Room and proceed to the hot shutdown panel. From this location, the unit can safely be maintained in the hot standby condition until the Control Room can be reentered. ... A licensed operator would be stationed at the hot shutdown panel.	The hot shutdown panel contains the essential indicator and controls to maintain a unit in ~~hot standby~~ safe condition for an extended time period. The hot shutdown panel is primarily intended to be used for a situation in which smoke or toxic gas makes the Control Room temporarily uninhabitable. In such a circumstance, ~~the operators are instructed to trip the reactor as they leave the Control Room and proceed to the hot shutdown panel. From this location,~~ the unit can safely be maintained in the ~~hot standby~~ safe condition until the Control Room can be reentered. ... ~~A licensed operator would be stationed at the hot shutdown panel.~~	This deletion reflects the conditions (i.e., reactor trip) that are no longer applicable to a permanently shutdown and defueled site.
7.1.2 Hot Shutdown Panel 7.1.2.4 Special Equipment	Auxiliary Feedwater 1. AFW Pump discharge pressure 2. AFW flow indication 3. Turbine Driven AFW Pump Control Valve transfer switch 4. Turbine Driven AFW Pump Control Valve control switch	~~Auxiliary Feedwater~~ 1. ~~AFW Pump discharge pressure~~ 2. ~~AFW flow indication~~ 3. ~~Turbine Driven AFW Pump Control Valve transfer switch~~ 4. ~~Turbine Driven AFW Pump Control Valve control switch~~	This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. The auxiliary feedwater (AFW)

Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
	5. Turbine Driven AFW Pump Control Valve position indicator 6. Motor Driven AFW Pump Control Valve controller 7. Motor Driven AFW Pump Control Valve position indicator 8. Turbine Driven AFW Pump steam supply valve control switch 9. Turbine Driven AFW Pump steam supply valve transfer switch 10. Turbine Driven AFW Pump steam supply valve position indication 11. Motor Driven AFW Pump control switch 12. Motor Driven AFW Pump mode selector switch 13. Motor Driven AFW Pump START/STOP/LOCAL indicator	~~5. Turbine Driven AFW Pump Control Valve position indicator~~ ~~6. Motor Driven AFW Pump Control Valve controller~~ ~~7. Motor Driven AFW Pump Control Valve position indicator~~ ~~8. Turbine Driven AFW Pump steam supply valve control switch~~ ~~9. Turbine Driven AFW Pump steam supply valve transfer switch~~ ~~10. Turbine Driven AFW Pump steam supply valve position indication~~ ~~11. Motor Driven AFW Pump control switch~~ ~~12. Motor Driven AFW Pump mode selector switch~~ ~~13. Motor Driven AFW Pump START/STOP/LOCAL indicator~~	system does not support operation of the SFPs.
7.1.2 Hot Shutdown Panel 7.1.2.4 Special Equipment	Chemical and Volume Control System 1. Centrifugal Charging Pump control switch 2. Centrifugal Charging Pump mode selector switch 3. Centrifugal Charging Pump START/STOP/LOCAL indicator 4. Boric Acid Transfer Pump transfer 5. Boric Acid Transfer Pump control switch 6. Boric Acid Transfer Pump ON/OFF indicator 7. Reactor Coolant Pump seal injection back pressure control valve controller 8. Centrifugal Charging Pump flow control valve controller 9. Reactor Coolant Pump seal injection back pressure control valve position indicator 10. Centrifugal Charging Pump flow control valve position indicator 11. Letdown Valve transfer switch 12. Letdown Valve control switch 13. Letdown Valve position indicator 14. Emergency borate valve transfer switch 15. Emergency borate valve control switch 16. Emergency borate valve position indicator 17. Emergency boric acid flow indicator 18. Volume Control Tank level indicator 19. Letdown flow indicator 20. Charging header flow indicator 21. Charging header pressure indicator 22. Reactor Coolant Pump Seal No. 1 pressure indicator 23. Cold leg loop charging motor operated valve 8107 24. Cold leg loop charging motor operated valve 8108 25. Charging to loop 4 cold leg air operated valve 8146 26. Refueling water supply to charging pump suction header valve 8805A pressure indicator	~~Chemical and Volume Control System~~ ~~1. Centrifugal Charging Pump control switch~~ ~~2. Centrifugal Charging Pump mode selector switch~~ ~~3. Centrifugal Charging Pump START/STOP/LOCAL indicator~~ ~~4. Boric Acid Transfer Pump transfer~~ ~~5. Boric Acid Transfer Pump control switch~~ ~~6. Boric Acid Transfer Pump ON/OFF indicator~~ ~~7. Reactor Coolant Pump seal injection back pressure control valve controller~~ ~~8. Centrifugal Charging Pump flow control valve controller~~ ~~9. Reactor Coolant Pump seal injection back pressure control valve position indicator~~ ~~10. Centrifugal Charging Pump flow control valve position indicator~~ ~~11. Letdown Valve transfer switch~~ ~~12. Letdown Valve control switch~~ ~~13. Letdown Valve position indicator~~ ~~14. Emergency borate valve transfer switch~~ ~~15. Emergency borate valve control switch~~ ~~16. Emergency borate valve position indicator~~ ~~17. Emergency boric acid flow indicator~~ ~~18. Volume Control Tank level indicator~~ ~~19. Letdown flow indicator~~ ~~20. Charging header flow indicator~~ ~~21. Charging header pressure indicator~~ ~~22. Reactor Coolant Pump Seal No. 1 pressure indicator~~ ~~23. Cold leg loop charging motor operated valve 8107~~ ~~24. Cold leg loop charging motor operated valve 8108~~ ~~25. Charging to loop 4 cold leg air operated valve 8146~~ ~~26. Refueling water supply to charging pump suction header valve 8805A pressure indicator~~	This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. The Chemical and Volume Control System does not support operation of the SFPs.
7.1.2 Hot Shutdown Panel 7.1.2.4 Special Equipment	Containment Fan Coolers 1. Containment Fan Cooler transfer switch 2. Containment Fan Cooler control switch Containment Fan Cooler ON/OFF status	~~Containment Fan Coolers~~ ~~1. Containment Fan Cooler transfer switch~~ ~~2. Containment Fan Cooler control switch~~ ~~Containment Fan Cooler ON/OFF status~~	This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. The containment fan coolers do not support operation of the SFPs.

Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
7.1.2 Hot Shutdown Panel 7.1.2.4 Special Equipment	Reactor Coolant System 1. Pressurizer liquid temperature indicator 2. Pressurizer pressure indicator 3. Pressurizer level indicator (2) 4. Pressurizer heater transfer switch (2) 5. Pressurizer heater control switch (2) 6. Pressurizer heater breaker position indicator (2) 7. Pressurizer Power Operated Relief Valve emergency close switch 8. Hot Leg loop 4 pressure indicator 9. Hot Leg loop 4 wide range temperature indicator 10. Cold Leg loop 4 wide range temperature indicator	~~Reactor Coolant System 1. Pressurizer liquid temperature indicator 2. Pressurizer pressure indicator 3. Pressurizer level indicator (2) 4. Pressurizer heater transfer switch (2) 5. Pressurizer heater control switch (2) 6. Pressurizer heater breaker position indicator (2) 7. Pressurizer Power Operated Relief Valve emergency close switch 8. Hot Leg loop 4 pressure indicator 9. Hot Leg loop 4 wide range temperature indicator 10. Cold Leg loop 4 wide range temperature indicator~~	This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. The reactor coolant system does not support operation of the SFPs.
7.1.2 Hot Shutdown Panel 7.1.2.4 Special Equipment	Steam Generators 1. Pressure indicator 2. Level indicator 3. Steam dump valve controller 4. Steam dump valve position indication	~~Steam Generators 1. Pressure indicator 2. Level indicator 3. Steam dump valve controller 4. Steam dump valve position indication~~	This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. The steam generators do not support operation of the SFPs.
7.1.2 Hot Shutdown Panel 7.1.2.4 Special Equipment	Other 1. Source Range neutron flux indicator (2) 2. Site emergency alarm switch 3. 4kV vital bus voltage indicator	~~Other 1. Source Range neutron flux indicator (2) 2. Site emergency alarm switch 3. 4kV vital bus voltage indicator~~	This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. The neutron flux indicators do not support operation of the SFPs.
7.1.3 Dedicated Shutdown Panel	7.1.3 Dedicated Shutdown Panel 7.1.3.1 Location Each unit is provided with a dedicated shutdown panel located in the 100' elevation of the Auxiliary Building, as shown below. 7.1.3.2 Emergency Function The dedicated shutdown panel in conjunction with the Hot Shutdown Panel is used if the unit must be taken from the hot shutdown condition to the cold shutdown condition from outside the Control Room. The dedicated shutdown panel contains sufficient instrumentation to follow and direct the cooldown operation and has controls for the pressurizer auxiliary spray control valve operation. The actual manipulation of other controls and valves would be done by operators at appropriate local stations. Any occurrence requiring the use of the dedicated shutdown panel would also involve activating the TSC. Overall recovery actions, including off-site communications, would be handled from the TSC, where the Site Emergency Coordinator would establish his headquarters. A NCO would be stationed at the dedicated shutdown panel. 7.1.3.3 Habitability Objectives The dedicated shutdown panels are not intended for use in radiological release type accidents. They are open to room atmosphere. No special provisions have been made to assure habitability during radiological emergencies.	~~7.1.3 Dedicated Shutdown Panel 7.1.3.1 Location Each unit is provided with a dedicated shutdown panel located in the 100' elevation of the Auxiliary Building, as shown below. 7.1.3.2 Emergency Function The dedicated shutdown panel in conjunction with the Hot Shutdown Panel is used if the unit must be taken from the hot shutdown condition to the cold shutdown condition from outside the Control Room. The dedicated shutdown panel contains sufficient instrumentation to follow and direct the cooldown operation and has controls for the pressurizer auxiliary spray control valve operation. The actual manipulation of other controls and valves would be done by operators at appropriate local stations. Any occurrence requiring the use of the dedicated shutdown panel would also involve activating the TSC. Overall recovery actions, including off-site communications, would be handled from the TSC, where the Site Emergency Coordinator would establish his headquarters. A NCO would be stationed at the dedicated shutdown panel. 7.1.3.3 Habitability Objectives The dedicated shutdown panels are not intended for use in radiological release type accidents. They are open to room atmosphere. No special provisions have been made to assure habitability during radiological emergencies. 7.1.3.4 Special Equipment~~	This revision reflects the systems that are no longer in-service for a permanently shutdown and defueled site. The dedicated shutdown panel does not support operation of the SFPs.

Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
	7.1.3.4 Special Equipment Instruments found on each dedicated shutdown panel are listed below. PG&E phone jacks are located near each panel. Portable, hand held radio units may also be used for communications if required. Steam Generators 1. Level indicator (each steam generator) Reactor Coolant System 1. Temperature indicator - RCS Loop 1 2. RCS Loop 1 Temperature selector switch 3. RCS Loop 4 pressure indicator 4. Pressurizer level indicator Chemical and Volume Control System 1. Auxiliary spray valve transfer switch 2. Auxiliary spray valve control switch	~~Instruments found on each dedicated shutdown panel are listed below. PG&E phone jacks are located near each panel. Portable, hand held radio units may also be used for communications if required.~~ ~~Steam Generators 1. Level indicator (each steam generator)~~ ~~Reactor Coolant System 1. Temperature indicator - RCS Loop 1 2. RCS Loop 1 Temperature selector switch 3. RCS Loop 4 pressure indicator 4. Pressurizer level indicator~~ ~~Chemical and Volume Control System 1. Auxiliary spray valve transfer switch 2. Auxiliary spray valve control switch~~	
7.1.4 Technical Support Center (TSC) 7.1.4.1 Location and Description	The purpose of the TSC is to provide a facility separate from but in close proximity to the Control Room. The TSC has the capability to display and transmit plant status to personnel responsible for engineering and management support of reactor operations in the event of an accident. ... 5) HVAC Room Heating, ventilating, and air conditioning equipment for the TSC is located in this room.	The purpose of the TSC is to provide a facility separate from but in close proximity to the Control Room. The TSC has the capability to display and transmit plant status to personnel responsible for engineering and management support of ~~reactor~~ SFP operations in the event of an accident. ... 5) HVAC Room Heating, ~~and~~ ventilating, ~~and air conditioning~~ equipment for the TSC is located in this room.	This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. The reactors do not support operation of the SFPs. The TSC will no longer receive air conditioning from the existing HVAC system.
7.1.4 Technical Support Center (TSC) 7.1.4.2 Emergency Function	The TSC when activated serves as the headquarters for the Site Emergency Coordinator, Operations Advisor, Radiological Advisor, Agency/ENS Communicator, and Engineering Advisor and their staffs throughout an emergency.	The TSC when activated serves as the headquarters for the Site Emergency Coordinator, Operations Advisor, Radiological Advisor, ~~Agency~~ENS Communicator, and Engineering Advisor and their staffs throughout an emergency.	This revision reflects re-naming of an ERO position as detailed in Enclosure 1.
7.1.4 Technical Support Center (TSC) 7.1.4.3 Habitability Objectives	The TSC is designed to be habitable throughout the course of a design basis accident. The outside walls, with steel bulkhead doors, form an airtight perimeter. The TSC shielding and ventilation system is designed, consistent with the criteria for the Control Room, to limit post-accident doses inside the TSC to 5 rem TEDE for the duration of the accident, provided normal ventilation is switched to emergency ventilation within 2 hours of the onset of a radiological release from a design basis accident. The TSC structure is designed to Hosgri ssismic criteria. The TSC is provided with its own ventilation system. The ventilation system is shown below.	The TSC is designed to be habitable throughout the course of a design basis accident, although no credit is taken for the shielding or ventilation features in the design basis accident calculation. ~~The outside walls, with steel bulkhead doors, form an airtight perimeter. The TSC shielding and ventilation system is designed, consistent with the criteria for the Control Room, to limit post-accident doses inside the TSC to 5 rem TEDE for the duration of the accident, provided normal ventilation is switched to emergency ventilation within 2 hours of the onset of a radiological release from a design basis accident. The TSC structure is designed to Hosgri seismic criteria.~~ ~~The TSC is provided with its own ventilation system. The ventilation system is shown below.~~	This revision reflects the FHA in the fuel handling building calculation which does not rely on the TSC shielding or ventilation capabilities to meet regulatory habitability requirements.

Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
	Under accident conditions, the supply to the TSC is transferred to the Control Room pressurization system that maintains the TSC at a minimum positive pressure of 1/8" water gage. Intake air is conditioned and internally re-circulated through High Efficiency Particulate Air (HEPA) and charcoal filters within the TSC. The pressurization air filtrates from the TSC to the outside atmosphere. The pressurization portion of the ventilation system, including the duct work, redundant ventilation fans and filter units for the TSC, are designed to Seismic Class I criteria. The fans are powered from 480-volt non-vital buses but can be transferred to a 480-volt vital bus on either unit. The air conditioning units are not designed as seismic structures and are powered from normal AC sources. The TSC intake air is monitored by GM Detectors with alarm and control capabilities as part of the Control Room ventilation system. It also has area, particulate, iodine, and noble gas monitors with alarm capabilities, which may be backed up by portable equipment. The TSC is also provided with self-contained breathing apparatus and protective clothing for use in an emergency.	~~Under accident conditions, the supply to the TSC is transferred to the Control Room pressurization system that maintains the TSC at a minimum positive pressure of 1/8" water gage. Intake air is conditioned and internally re-circulated through High Efficiency Particulate Air (HEPA) and charcoal filters within the TSC. The pressurization air filtrates from the TSC to the outside atmosphere. The pressurization portion of the ventilation system, including the duct work, redundant ventilation fans and filter units for the TSC, are designed to Seismic Class I criteria. The fans are powered from 480-volt non-vital buses but can be transferred to a 480-volt vital bus on either unit. The air conditioning units are not designed as seismic structures and are powered from normal AC sources.~~ ~~The TSC intake air is monitored by GM Detectors with alarm and control capabilities as part of the Control Room ventilation system. It also has area, particulate, iodine, and noble gas monitors with alarm capabilities, which may be backed up by portable equipment. The TSC is also provided with self-contained breathing apparatus and protective clothing for use in an emergency.~~	
7.1.4 Technical Support Center (TSC) 7.1.4.4 Special Equipment	1) Safety Parameter Display System (SPDS) The SPDS was designed to the guidelines specified in NUREG-0696 and NUREG-0737 Supp. 1. It is part of the Emergency Response Facility Data System (ERFDS). The SPDS for each unit is a computer-based system consisting of a data acquisition system, server computers, and display computers. There are two high-resolution color SPDS monitors in the TSC. The displays available for the monitors allow TSC personnel to view plant parameters in real time ("SPDS display"), primary and secondary system mimics, and decision trees. 2) Emergency Response Data System (ERDS) The Emergency Response Data System is a direct near real-time electronic data link between a DCPD installed plant computer system and the Nuclear Regulatory Commission's Operations Center and Regional Office. This system provides for the automated transmission of a limited set of selected parameters and supplements the existing voice transmission over the NRC Virtual Private Network (VPN). Activation of this system occurs at an Alert or higher emergency classification.	~~1) Safety Parameter Display System (SPDS) The SPDS was designed to the guidelines specified in NUREG-0696 and NUREG-0737 Supp. 1. It is part of the Emergency Response Facility Data System (ERFDS).~~ ~~The SPDS for each unit is a computer-based system consisting of a data acquisition system, server computers, and display computers. There are two high-resolution color SPDS monitors in the TSC. The displays available for the monitors allow TSC personnel to view plant parameters in real time ("SPDS display"), primary and secondary system mimics, and decision trees.~~ ~~2) Emergency Response Data System (ERDS) The Emergency Response Data System is a direct near real-time electronic data link between a DCPD installed plant computer system and the Nuclear Regulatory Commission's Operations Center and Regional Office. This system provides for the automated transmission of a limited set of selected parameters and supplements the existing voice transmission over the NRC Virtual Private Network (VPN). Activation of this system occurs at an Alert or higher emergency classification.~~	This revision deletes reference to the SPDS that provides data for reactor-related equipment. The revision also deletes reference to the ERDS. Following permanent shutdown and defueling of the reactors, ERDS is not required under 10 CFR 50, Appendix E, paragraph VI.2. This change is included for informational purposes and will be dispositioned prior to implementation in accordance with the requirements in 10 CFR 50.54(q), "Emergency Plans," subparagraph (3), related to emergency preparedness.
7.2 Communications Equipment 7.2.2 Communication Interface with Public Switched Telephone Network (PSTN)	Separate PSTN lines come into the plant for operational use. One line is mounted on the Senior Control Operator's desk in the Control Room to call out from the Control Room in an emergency.	Separate PSTN lines come into the plant for operational use. One line is mounted ~~on the Senior Control Operator's desk~~ in the Control Room to call out from the Control Room in an emergency.	This deletion reflects the elimination of the Senior Control Operator position in the Control Room.

Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
7.2 Communications Equipment 7.2.9 Nuclear Regulatory Commission Communications Lines	Emergency Response Data System (ERDS): The ERDS application transmits plant data to the NRC during emergencies. This application runs on the redundant DMZ servers and is activated via remote login. The ERDS application connects to an NRC provided and owned Virtual Private Network (VPN) device via the redundant PDN firewall, the DCPD LAN and the PG&E LAN. Upon activation, ERDS transmits specific plant accident parameters as encrypted data to the NRC Emergency Response Center via the secure internet VPN connection.	~~Emergency Response Data System (ERDS): The ERDS application transmits plant data to the NRC during emergencies. This application runs on the redundant DMZ servers and is activated via remote login. The ERDS application connects to an NRC provided and owned Virtual Private Network (VPN) device via the redundant PDN firewall, the DCPD LAN and the PG&E LAN. Upon activation, ERDS transmits specific plant accident parameters as encrypted data to the NRC Emergency Response Center via the secure internet VPN connection.~~	This revision deletes reference to the ERDS. Following permanent shutdown and defueling of the reactors, ERDS is not required under 10 CFR 50, Appendix E, paragraph VI.2. This change is included for informational purposes and will be dispositioned prior to implementation in accordance with the requirements in 10 CFR 50.54(q).
7.3 On-Site Signals and Alarms 7.3.1 Site Emergency Signal	The site emergency signal and containment evacuation signal are the only plant signals that are produced by an electronic warbler. ... The site emergency signal is initiated manually by the Control Room Operator.	The site emergency signal ~~is and containment evacuation signal are~~ the only plant signals that ~~is are~~ produced by an electronic warbler. ... The site emergency signal is initiated manually by the Control Room ~~Operator~~ personnel.	This revision reflects the elimination of the Containment Evacuation Signal. The permanently shutdown and defueled reactors obviate the need for a radiological-related evacuation from the containment buildings. The SNF is located in the SFPs within the fuel handling building, which is addressed by the Criticality Monitor Signal. This revision also reflects elimination of Control Room Operators consistent with the On-Shift Staffing Analysis as presented in Appendix F of Attachment 3.
7.3 On-Site Signals and Alarms 7.3.4 Containment Evacuation Signal	7.3.4 Containment Evacuation Signal The containment evacuation signal utilizes the same signaling equipment within the containment as is used for the site emergency signal. The electronic warbler on the +140' elevation and flashing red lights on the +91' and +115' elevations are utilized. In addition, a flashing red light is located at the entrance to each personnel airlock. The containment evacuation alarm is manually actuated from the control console, or from switches mounted in the containment by each airlock. This signal is independent for each unit. The containment evacuation alarm will continue until manually reset in the Control Room.	~~7.3.4 Containment Evacuation Signal~~ ~~The containment evacuation signal utilizes the same signaling equipment within the containment as is used for the site emergency signal. The electronic warbler on the +140' elevation and flashing red lights on the +91' and +115' elevations are utilized. In addition, a flashing red light is located at the entrance to each personnel airlock.~~ ~~The containment evacuation alarm is manually actuated from the control console, or from switches mounted in the containment by each airlock. This signal is independent for each unit. The containment evacuation alarm will continue until manually reset in the Control Room.~~	This revision reflects the elimination of the Containment Evacuation Signal. The permanently shutdown and defueled reactors obviate the need for a radiological-related evacuation from the containment buildings. The SNF is located in the SFPs within the fuel handling building, which is addressed by the Criticality Monitor Signal.
7.5 On-Site Assessment Systems and Equipment 7.5.2 Meteorological Systems	The redundant TSC meteorological computers provide data to redundant meteorological data servers which provide Unit 1 & 2 network communication of the 15 minute values to the Plant Data Network (PDN), the Emergency Assessment and Response System (EARS), the Plant Process Computer (PPC) and select meteorological parameters to both unit's Emergency Response Data System (ERDS).	The redundant TSC meteorological computers provide data to redundant meteorological data servers which provide Unit 1 & 2 network communication of the 15 minute values to the Plant Data Network ~~(PDN), the Emergency Assessment and Response System (EARS), the Plant Process Computer (PPC) and select meteorological parameters to both unit's Emergency Response Data System (ERDS).~~	This revision deletes reference to the ERDS. Following permanent shutdown and defueling of the reactors, ERDS is not required under 10 CFR 50, Appendix E, paragraph VI.2. This change is included for informational purposes and will be dispositioned prior to implementation in accordance with the requirements in 10 CFR 50.54(q).

Emergency Plan Section	Current Wording			Proposed Wording			Reason for Change
7.5.2.1 Measurement Systems							
7.5 On-Site Assessment Systems and Equipment	The additional areas where these detectors have been added are in the Technical Support Center (G-M Type), and in the Containment Structures (Ion-Chamber Type).			The additional areas where these detectors have been added are in the Technical Support Center (G-M Type); ~~and in the Containment Structures (Ion-Chamber Type).~~			This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. These detectors do not support operation of the SFPs.
7.5.3 Area Radiation Monitoring System	...			...			
	U1-R-2	Containment operating deck (140' elevation) near personnel access hatch.	Not designed to withstand post loss-of-coolant-accident containment temperature.	~~U1-R-2~~	~~Containment operating deck (140' elevation) near personnel access hatch.~~	~~Not designed to withstand post loss-of-coolant-accident containment temperature.~~	
	U2-R-2			~~U2-R-2~~			
	U1-R-4	Charging pump room (73' elevation in Auxiliary Building).		~~U1-R-4~~	~~Charging pump room (73' elevation in Auxiliary Building).~~		
	U2-R-4			~~U2-R-4~~			
	U1-R-6	NSSS Sampling room (100' elevation in Auxiliary Building).		~~U1-R-6~~	~~NSSS Sampling room (100' elevation in Auxiliary Building).~~		
	U2-R-6			~~U2-R-6~~			
	U1-R-7	Incore seal table area (103' elevation in containment).	Not designed to withstand post loss-of-coolant-accident containment temperature.	~~U1-R-7~~	~~Incore seal table area (103' elevation in containment).~~	~~Not designed to withstand post loss-of-coolant-accident containment temperature.~~	
	U2-R-7			~~U2-R-7~~			
	U-1 & 2 R-10	Auxiliary Building control board (85' elevation in Auxiliary Building).		~~U-1 & 2 R-10~~	~~Auxiliary Building control board (85' elevation in Auxiliary Building).~~		
	U1-R-30	Containment high range radiation (140' elevation in containment).	Designed to withstand post loss-of-coolant-accident (LOCA) conditions in containment.	~~U1-R-30~~	~~Containment high range radiation (140' elevation in containment).~~	~~Designed to withstand post loss-of-coolant-accident (LOCA) conditions in containment.~~	
	U1-R-31			~~U1-R-31~~			
	U2-R-30			~~U2-R-30~~			
	U2-R-31			~~U2-R-31~~			
	...			...			
	U1-R-48	HRSS (Sentry) Post Accident Sampling Room	Non-vital power supply Local readout only	~~U1-R-48~~	~~HRSS (Sentry) Post Accident Sampling Room~~	~~Non-vital power supply Local readout only~~	
	U2-R-48			~~U2-R-48~~			

Emergency Plan Section	Current Wording					Proposed Wording					Reason for Change
7.5 On-Site Assessment Systems and Equipment 7.5.4 Process Radiological Monitoring Systems	1-R-11 2-R-11	Containment air particulate (100' penetration area GE)	Gamma scintillation	10 ¹ to 10 ⁶ cpm	Continuous sample drawn from containment, passed through moving filter, returned to containment. Detector looks at filter. Sample lines are automatically isolated by R-44A/B in event of major accident in containment.	~~1-R-11~~ ~~2-R-11~~	~~Containment air particulate (100' penetration area GE)~~	~~Gamma scintillation~~	~~10¹ to 10⁶ cpm~~	~~Continuous sample drawn from containment, passed through moving filter, returned to containment. Detector looks at filter. Sample lines are automatically isolated by R-44A/B in event of major accident in containment.~~	This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. These detectors do not support operation of the SFPs.
	1-R-12 2-R-12	Containment air gas (100' penetration area GE)	G-M	10 ¹ to 10 ⁶ cpm	Detector looks at sample flow downstream of particulate monitor. Sample lines are automatically isolated by R-44 A/B in event of major accident in containment.	~~1-R-12~~ ~~2-R-12~~	~~Containment air gas (100' penetration area GE)~~	~~G-M~~	~~10¹ to 10⁶ cpm~~	~~Detector looks at sample flow downstream of particulate monitor. Sample lines are automatically isolated by R-44 A/B in event of major accident in containment.~~	
	1-R-13 2-R-13	RHR exhaust duct air particulate (100' Aux. Building)	Gamma scintillation	10 ¹ to 10 ⁶ cpm	Detector looks at air particulate sample on moving filter.	~~1-R-13~~ ~~2-R-13~~	~~RHR exhaust duct air particulate (100' Aux. Building)~~	~~Gamma scintillation~~	~~10¹ to 10⁶ cpm~~	~~Detector looks at air particulate sample on moving filter.~~	
	...					...					
	1-R-15/15R 2-R-15/15R	Condenser air ejector gas (104' Turbine Building)	Beta scintillation	10 ¹ to 5 x 10 ⁶ cpm	Detector looks at air ejector off-gas.	~~1-R-15/15R~~ ~~2-R-15/15R~~	~~Condenser air ejector gas (104' Turbine Building)~~	~~Beta scintillation~~	~~10¹ to 5 x 10⁶ cpm~~	~~Detector looks at air ejector off-gas.~~	
	...					...					

Emergency Plan Section	Current Wording					Proposed Wording					Reason for Change
	1-R-19 2-R-19	Steam generator blowdown liquid (100' Aux. Building penetration area GE)	Gamma scintillation	101 to 106 cpm	Detector looks at combined blowdown from 4 steam generators. Can be valved to look at each steam generator individually. High alarm will isolate Stm. Gen blowdown tank inlet and overboard lines.	~~1-R-19~~ ~~2-R-19~~	~~Steam generator blowdown liquid (100' Aux. Building penetration area GE)~~	~~Gamma scintillation~~	~~101 to 106 cpm~~	~~Detector looks at combined blowdown from 4 steam generators. Can be valved to look at each steam generator individually. High alarm will isolate Stm. Gen blowdown tank inlet and overboard lines.~~	
	R-3	Oily water separator effluent (85' Turbine Building)	Gamma scintillation	101 to 106 cpm		R-3	Oily water separator effluent (85' Turbine Building)	Gamma scintillation	101 to 106 cpm		
	1-R-22 2-R-22	Gas decay tank discharge gas (54' Aux. Building)	G-M	101 to 106 cpm	Detector looks at gas decay tank discharge line and isolates it on high alarm.	1-R-22 2-R-22	Gas decay tank discharge gas (54' Aux. Building)	G-M	101 to 106 cpm	Detector looks at gas decay tank discharge line and isolates it on high alarm.	
	1-R-23 2-R-23	Steam generator blowdown to discharge tunnel (100' Aux. Building penetration area GW)	Gamma scintillation	100 to 106 cpm	Detector looks at liquid blowdown. 10-7 µCi/cc is the detectable level. High alarm will isolate Stm. Gen blowdown tank inlet and overboard lines.	~~1-R-23~~ ~~2-R-23~~	~~Steam generator blowdown to discharge tunnel (100' Aux. Building penetration area GW)~~	~~Gamma scintillation~~	~~100 to 106 cpm~~	~~Detector looks at liquid blowdown. 10-7 µCi/cc is the detectable level. High alarm will isolate Stm. Gen blowdown tank inlet and overboard lines.~~	
	1-R-25 2-R-25 1-R-26 2-R-26	Control room ventilation supply (160' Aux. Building)	Gamma scintillation	10-2 to 103 mR/hr	Detector looks at Control Room ventilation intake to supply duct. High activity will transfer ventilation system to pressurization mode. (MODE 4)	~~1-R-25~~ ~~2-R-25~~ ~~1-R-26~~ ~~2-R-26~~	~~Control room ventilation supply (160' Aux. Building)~~	~~Gamma scintillation~~	~~10-2 to 103 mR/hr~~	~~Detector looks at Control Room ventilation intake to supply duct. High activity will transfer ventilation system to pressurization mode. (MODE 4)~~	
	...					...					

Emergency Plan Section	Current Wording					Proposed Wording					Reason for Change
	1-R-41 1-R-42 1-R-43 2-R-41 2-R-42 2-R-43	Gas decay tanks (64' Aux Building).	Ion-chamber	100 mR/hr to 104 mR/hr	Readout is at the Aux. Building Control Panel only. Well mounted with view ports directed at each tank.	1-R-41 1-R-42 1-R-43 2-R-41 2-R-42 2-R-43	Gas decay tanks (64' Aux Building).	Ion-chamber	100 mR/hr to 104 mR/hr	Readout is at the Aux. Building Control Panel only. Well mounted with view ports directed at each tank.	
	R-51 R-52 R-53 R-54	Control room pressurization system inlet (140' Turbine Building)	G-M	10-2 to 104 cpm	Detector measures gross activity in the intake line. High alarm switches intake to opposite end of Turbine Building.	~~R-51 R-52 R-53 R-54~~	~~Control room pressurization system inlet (140' Turbine Building)~~	~~G-M~~	~~10-2 to 104 cpm~~	~~Detector measures gross activity in the intake line. High alarm switches intake to opposite end of Turbine Building.~~	
	R-71 R-72 R-73 R-74	Steam lines downstream of containment penetration (130' pipe racks)	G-M	10 to 106 cpm	Detector measures gross gamma activity in steam line, including Nitrogen-16.	~~R-71 R-72 R-73 R-74~~	~~Steam lines downstream of containment penetration (130' pipe racks)~~	~~G-M~~	~~10 to 106 cpm~~	~~Detector measures gross gamma activity in steam line, including Nitrogen-16.~~	
	1-R-44A & 44B 2-R-44A & 44B	Containment Purge Exhaust (100' penetration area L)	Beta- scintillation	10 to 5 x 106 cpm	Containment purge exhaust. High alarm causes CVI.	~~1-R-44A & 44B 2-R-44A & 44B~~	~~Containment Purge Exhaust (100' penetration area L)~~	~~Beta- scintillation~~	~~10 to 5 x 106 cpm~~	~~Containment purge exhaust. High alarm causes CVI.~~	
7.5 On-Site Assessment Systems and Equipment 7.5.5 Radiological Counting Room 7.5.5.1 Location and Availability	Although this area would be expected to be available during most emergency conditions, it should be noted that operation of residual heat exchanger 1-1 in the post LOCA recirculation mode (assuming a Regulatory Guide 1.4 source term in the reactor coolant system) produces a gamma background in the facility, which would make it unusable.					~~Although this area would be expected to be available during most emergency conditions, it should be noted that operation of residual heat exchanger 1-1 in the post LOCA recirculation mode (assuming a Regulatory Guide 1.4 source term in the reactor coolant system) produces a gamma background in the facility, which would make it unusable.~~					This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. Thus, the situation describes is no longer applicable.
7.5 On-Site Assessment Systems and Equipment 7.5.6 Analytical Facilities Associated with On-Site Technical Support Center	<u>No. of Monitors</u>	<u>Monitor Channel</u>	<u>Monitor Function</u>			<u>No. of Monitors</u>	<u>Monitor Channel</u>	<u>Monitor Function</u>			This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. Thus, these monitors would no longer be in operation.
	2	R-02	Containment Area Monitor			~~2~~	~~R-02~~	~~Containment Area Monitor~~			
	2	R-11	Containment Air Particulate Monitor			~~2~~	~~R-11~~	~~Containment Air Particulate Monitor~~			
	2	R-12	Containment Noble Gas Monitor			~~2~~	~~R-12~~	~~Containment Noble Gas Monitor~~			
	2	R-14	Plant Vent Noble Gas Monitor			2	R-14	Plant Vent Noble Gas Monitor			
	2	R-14R	Plant Vent Noble Gas Monitor, redundant			2	R-14R	Plant Vent Noble Gas Monitor, redundant			
	2	R-15	Condenser Air Ejector Gas Monitor			~~2~~	~~R-15~~	~~Condenser Air Ejector Gas Monitor~~			
	2	R-15R	Condenser Air Ejector Gas Monitor, redundant			~~2~~	~~R-15R~~	~~Condenser Air Ejector Gas Monitor, redundant~~			
	2	R-22	Gas Decay Tank Discharge Monitor			2	R-22	Gas Decay Tank Discharge Monitor			
	2	R-24	Plant Vent Iodine Monitor			2	R-24	Plant Vent Iodine Monitor			

Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
7.5.6.2.4)c) On-Site Radiation Monitors and Plant Process Instruments	2 R-24R Plant Vent Iodine Monitor, redundant 2 R-28 Plant Vent Air Particulate Monitor 2 R-28R Plant Vent Air Particulate Monitor, redundant 2 R-29 Plant Vent Gross Gamma Monitor 2 R-30 Containment High Range Area Monitor 2 R-31 Containment High Range Area Monitor 2 R-87 Extended Range Plant Vent Noble Gas Monitor 2 FM-12 Plant Vent Flow Rate 2 FM-700 Containment Purge Flow Rate 2 FIT-81 Condenser Air Ejector Flow Rate 2 R-44A Containment Purge Exhaust and CVI 2 R-44B Containment Purge Exhaust and CVI, redundant 2 RE-71 Main Steam Line Monitor 2 RE-72 Main Steam Line Monitor 2 RE-73 Main Steam Line Monitor 2 RE-74 Main Steam Line Monitor	2 R-24R Plant Vent Iodine Monitor, redundant 2 R-28 Plant Vent Air Particulate Monitor 2 R-28R Plant Vent Air Particulate Monitor, redundant 2 R-29 Plant Vent Gross Gamma Monitor ~~2 R-30 Containment High Range Area Monitor~~ ~~2 R-31 Containment High Range Area Monitor~~ 2 R-87 Extended Range Plant Vent Noble Gas Monitor 2 FM-12 Plant Vent Flow Rate ~~2 FM-700 Containment Purge Flow Rate~~ ~~2 FIT-81 Condenser Air Ejector Flow Rate~~ ~~2 R-44A Containment Purge Exhaust and CVI~~ ~~2 R-44B Containment Purge Exhaust and CVI, redundant~~ ~~2 RE-71 Main Steam Line Monitor~~ ~~2 RE-72 Main Steam Line Monitor~~ ~~2 RE-73 Main Steam Line Monitor~~ ~~2 RE-74 Main Steam Line Monitor~~	
7.5 On-Site Assessment Systems and Equipment 7.5.10 Sampling and Analysis Capability	1) Reactor Coolant Sampling If emergency conditions require sampling of reactor coolant, sampling may be performed by sampling of the reactor coolant system and containment sump sampling systems. In addition to the normal plant laboratory facilities, the TSC has instrumentation for radiological analysis of the samples. 2) Containment Atmosphere Sampling If emergency conditions require sampling of the containment atmosphere, the CASP containment atmospheric sampling system may be used. Equipment is provided to determine containment hydrogen. Dilute samples can be collected and prepared for counting. Radiological analyses are performed in either the normal plant laboratory facility or the TSC laboratory.	1) ~~Reactor Coolant~~Spent Fuel Pool Sampling If emergency conditions require sampling of ~~reactor coolant~~SFP water, sampling may be performed by sampling ~~of the reactor coolant system and containment sump sampling systems~~the SFP sampling system. In addition to the normal plant laboratory facilities, the TSC has instrumentation for radiological analysis of the samples. 2) ~~Containment Atmosphere Sampling~~ ~~If emergency conditions require sampling of the containment atmosphere, the CASP containment atmospheric sampling system may be used. Equipment is provided to determine containment hydrogen. Dilute samples can be collected and prepared for counting. Radiological analyses are performed in either the normal plant laboratory facility or the TSC laboratory.~~	This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. The reactor coolant and containment atmosphere sampling systems would no longer be in operation and SFP sampling would be relied upon, as this is the wet storage location of the SNF.
7.5 On-Site Assessment Systems and Equipment 7.5.11 Miscellaneous Post Accident Assessment Instruments	1) Containment Interior Radiation Monitoring These detectors are part of the area and process monitoring systems and include two high range gamma radiation-monitoring instruments that have been provided to monitor post-accident radiation levels inside of the containment. They utilize ion chamber detectors and have a range of 1.0 to 10⁷ R/hr. The units read out and alarm in the Control Room. These units are supplied from emergency AC, are seismic design Class I, and are qualified for post-accident containment conditions. The radiation level inside the containment can also be estimated from outside the containment using hand held instruments. 2) Containment Water Level	1) ~~Containment Interior~~Spent Fuel Pool Area Radiation Monitoring These detectors are part of the area and process monitoring systems and ~~include two high range gamma radiation-monitoring instruments that~~ have been provided to monitor ~~post-accident~~ radiation levels inside of the ~~containment~~fuel handling building. ~~They utilize ion chamber detectors and have a range of 1.0 to 10⁷ R/hr.~~ The units read out and alarm in the Control Room. These units are supplied from ~~emergency~~ AC, are seismic design Class I, ~~and are qualified for post-accident containment conditions~~. The radiation level inside the ~~containment~~fuel handling building can also be estimated from outside the ~~containment~~fuel handling building using hand held instruments. 2) ~~Containment~~Spent Fuel Pool Water Level	This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. The containment monitors would no longer be in operation and spent fuel pool monitors would be relied upon, as this is the wet storage location of the SNF.

Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
	Two wide range and one narrow range containment water level recorders can be used to indicate water level from the bottom of the reactor cavity (elevation 64 feet) to elevation 98 feet. The volume of water these recorders will represent is greater than 600,000 gallons. The indicators are located in the Control Room. ... 5) RCS Temperature Indication RCS temperature is monitored with both narrow and wide range instruments. Each RCS loop has one wide range hot leg RTD and one wide range cold leg RTD. The wide range RTDs are in the main loops and have a temperature range of 0-700F. The narrow range RTDs are in thermowells that protrude into the legs and have a temperature range of 530-630F. The RTDs have Control Room readouts. Also originally installed is a redundant, two train incore thermocouple system with readout on SPDS monitors in the Control Room, TSC and EOF. The number of operable thermocouples required per core quadrant is governed by the requirements given in the Technical Specifications. The incore thermocouple system is designed to Class IE electrical requirements and uses microprocessor equipment to calculate and readout on the Post Accident Monitoring System (PAMS) monitors. Readout is also available on the plant computer and SPDS monitors.	~~Two wide range and one narrow range containment~~Spent fuel pool water level recorders can be used to indicate water level from the bottom of the ~~reactor cavity (elevation 64 feet) to elevation 98 feet~~Spent fuel pools via the PPC. The volume of water these recorders will represent is greater than 600,000 gallons. The indicators ~~are located~~annunciate in the Control Room. ... 53) RCSSpent Fuel Pool Temperature Indication RCSSpent Fuel Pool temperature is monitored via the PPC~~with both narrow and wide range instruments. Each RCS loop has one wide range hot leg RTD and one wide range cold leg RTD. The wide range RTDs are in the main loops and have a temperature range of 0-700F. The narrow range RTDs are in thermowells that protrude into the legs and have a temperature range of 530-630F. The RTDs have~~and annunciates in the Control Room~~readouts.~~ ~~Also originally installed is a redundant, two train incore thermocouple system with readout on SPDS monitors in the Control Room, TSC and EOF. The number of operable thermocouples required per core quadrant is governed by the requirements given in the Technical Specifications. The incore thermocouple system is designed to Class IE electrical requirements and uses microprocessor equipment to calculate and readout on the Post Accident Monitoring System (PAMS) monitors. Readout is also available on the plant computer and SPDS monitors.~~	
7.5 On-Site Assessment Systems and Equipment 7.5.11 Miscellaneous Post Accident Assessment Instruments	3) RCS Subcooling Monitor RCS subcooling instrumentation is provided to determine margins to saturation pressure and temperature using reactor coolant system pressure and temperature instruments and incore thermocouples. A calculating microprocessor module powered from a vital bus is provided. A digital readout is provided on the main control board. The margin, in either degrees Fahrenheit or pounds per square inch, is displayed on a continuous basis. Low and low-low main annunciator inputs are provided. 4) RCS Pressure Indication Reactor coolant pressure transmitters on loop 4 and loop 3 of the RCS are provided. One transmitter has an indicator in the Control Room with a range of 0 to 3,000 psig. The other transmitter has a recorder with a range of 0 to 3,000 psig and an indicator with a range of 0 to 600 psig. 6) Containment Pressure Indication Seven containment pressure indications are available in the Control Room (each uses its own transmitter): a) During normal operation a single recorder with a range of -1 to +1.5 psig is utilized. b) Four indicators are available with a range of -5 to +55 psig. c) To indicate higher containment pressure two recorders with a range of -5 to 200 psig are available. d) The instruments described in 2) and 3) are powered from vital electrical power supplies.	3) ~~RCS Subcooling Monitor~~ ~~RCS subcooling instrumentation is provided to determine margins to saturation pressure and temperature using reactor coolant system pressure and temperature instruments and incore thermocouples. A calculating microprocessor module powered from a vital bus is provided. A digital readout is provided on the main control board. The margin, in either degrees Fahrenheit or pounds per square inch, is displayed on a continuous basis. Low and low-low main annunciator inputs are provided.~~ 4) ~~RCS Pressure Indication~~ ~~Reactor coolant pressure transmitters on loop 4 and loop 3 of the RCS are provided. One transmitter has an indicator in the Control Room with a range of 0 to 3,000 psig. The other transmitter has a recorder with a range of 0 to 3,000 psig and an indicator with a range of 0 to 600 psig.~~ 6) ~~Containment Pressure Indication~~ ~~Seven containment pressure indications are available in the Control Room (each uses its own transmitter):~~ a) ~~During normal operation a single recorder with a range of -1 to +1.5 psig is utilized.~~ b) ~~Four indicators are available with a range of -5 to +55 psig.~~ c) ~~To indicate higher containment pressure two recorders with a range of -5 to 200 psig are available.~~ d) ~~The instruments described in 2) and 3) are powered from vital electrical power supplies.~~	This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. Thus, these monitors/indicators would no longer be in operation.

Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
7.7 Miscellaneous Protective Facilities and Equipment 7.7.2 Fire Detection by Personnel	A qualified nuclear operator or licensed operator will accompany the Fire Brigade Leader unless the Fire Brigade Leader is the qualified nuclear operator or Licensed Operator. ... The SM/SEC will notify CAL FIRE, San Luis Obispo County Fire (CDF/SLO). ... Any time the Fire Brigade Leader or SM/SEC recommends additional assistance.	A qualified ~~nuclear operator~~CFH or ~~licensed operator~~NCO will accompany the Fire Brigade Leader unless the Fire Brigade Leader is the ~~qualified nuclear operator~~CFH or ~~Licensed Operator~~NCO. ... The Shift SupervisorSM/SEC will notify CAL FIRE, San Luis Obispo County Fire (CDF/SLO). ... Any time the Fire Brigade Leader or Shift SupervisorM/SEC recommends additional assistance.	This revision reflects the change in Control Room staff after permanent shutdown. This revision is consistent with planned changes to the DCCP Technical Specifications that will rename the existing Shift Manager as the Shift Supervisor.
7.7 Miscellaneous Protective Facilities and Equipment 7.7.10 Containment Hydrogen Recombiners	7.7.10 Containment Hydrogen Recombiners The electric hydrogen recombiner system consists of two completely independent subsystems. Each subsystem is capable of providing the required hydrogen removal capacity. Each subsystem consists of a recombiner unit, which is located in the plant containment building at elevation 140', and a control panel and power supply. The latter two components are located outside the containment in the Auxiliary Building which is an accessible structure following a loss-of-coolant accident (LOCA). Connections external to the containment for removal of hydrogen gas from inside containment by portable recombiner units are provided on the post-accident hydrogen purge system containment penetrations. Each recombiner unit is a constant volume device with a flow of 100 cfm. It has a minimum hydrogen removal rate equivalent to a removal efficiency of 98 percent with a process gas hydrogen concentration of 4 percent. The recombiner unit consists of an inlet preheater, a heater-recombination, and an exhaust chamber. The unit is completely enclosed and the internals are protected from impingement by containment spray. The inlet and outlet ports are louvered to minimize moisture entering the unit.	~~7.7.10 Containment Hydrogen Recombiners~~ ~~The electric hydrogen recombiner system consists of two completely independent subsystems. Each subsystem is capable of providing the required hydrogen removal capacity.~~ ~~Each subsystem consists of a recombiner unit, which is located in the plant containment building at elevation 140', and a control panel and power supply. The latter two components are located outside the containment in the Auxiliary Building which is an accessible structure following a loss-of-coolant accident (LOCA). Connections external to the containment for removal of hydrogen gas from inside containment by portable recombiner units are provided on the post-accident hydrogen purge system containment penetrations.~~ ~~Each recombiner unit is a constant volume device with a flow of 100 cfm. It has a minimum hydrogen removal rate equivalent to a removal efficiency of 98 percent with a process gas hydrogen concentration of 4 percent.~~ ~~The recombiner unit consists of an inlet preheater, a heater-recombination, and an exhaust chamber. The unit is completely enclosed and the internals are protected from impingement by containment spray. The inlet and outlet ports are louvered to minimize moisture entering the unit.~~	This deletion reflects the systems that are no longer in-service for a permanently shutdown and defueled site. Thus, these components would no longer be in operation.
7.8 First Aid and Medical Facilities	The DCCP Medical Facility provides routine occupational medical care as well as emergency care for sick or injured personnel. During normal business hours, a physician's assistant is in charge.	The DCCP Medical Facility provides routine occupational medical care as well as emergency care for sick or injured personnel. ~~During normal business hours, a physician's assistant is in charge.~~	This revision reflects the elimination of non-first aid medical personnel.
8.1 Training of Plant Staff Personnel 8.1.2 Emergency Plan Training	The positions in the site emergency response organization include the following categories: - Coordinators of the response organization (Site Emergency Coordinators) - Personnel responsible for accident assessment (Radiological Advisor, Shift Technical Advisor) Radiological monitoring teams and radiological analysis personnel (Health Physics Technicians and Radiological Data Processors) - Security (Security Advisor, Security Force) - Repair and damage control/corrective action teams (Maintenance Coordinators, Team Coordinator)	The positions in the site emergency response organization include the following categories: - Coordinators of the response organization (Site Emergency Coordinators) - Personnel responsible for accident assessment (Radiological Advisor, ~~Shift Technical Advisor~~) Radiological monitoring teams and radiological analysis personnel (Health Physics Technicians ~~and Radiological Data Processors~~) - Security (Security Advisor, Security Force) - Repair and damage control/corrective action teams (~~Maintenance Coordinators, Team Coordinator~~OSC Director)	This revision reflects the elimination of ERO positions as detailed in this Attachment.

Emergency Plan Section	Current Wording	Proposed Wording	Reason for Change
	Personnel responsible for transmission of emergency information and instructions (Communications Advisor, Agency/ENS Communicator, Ops Communicator, Communications Coordinator, Offsite Communicator)	Personnel responsible for transmission of emergency information and instructions (Communications Advisor, ~~Agency/ENS Communicator, Ops Communicator,~~ Communications Coordinator, ~~Offsite Communicator~~)	
8.1 Training of Plant Staff Personnel 8.1.3 Emergency Operating Procedures	All plant operators above the level of Nuclear Operator, plus selected members of the engineering staff, receive training under the provisions of NRC licensing requirements. This instruction, provided in the Licensed Operator and Senior Operator Training and Retraining Programs, includes nuclear power fundamentals, plant systems, operating practice, procedures and experience and simulator training for normal, transient, and emergency operation of the plant.	~~All plant operators above the level of Nuclear Operator~~ CFHs, plus selected members of the engineering staff, receive training under the provisions of NRC ~~licensing~~ 10 CFR 50.120 requirements. This instruction, ~~provided in the Licensed Operator and Senior Operator Training and Retraining Programs,~~ includes ~~nuclear power fundamentals,~~ plant systems, operating practice, procedures and experience and ~~simulator~~ training for normal, transient, and emergency operation of the plant.	This revision reflects modification of training requirements based on elimination of licensed operator positions.
8.3 Drills and Exercises 8.3.1 Drills	5) Health Physics Drills ... b) Demonstration of the core damage assessment methodology will be included in drills annually.	5) Health Physics Drills ... b) ~~Demonstration of the core damage assessment methodology will be included in drills annually.~~	This deletion reflects the permanently shutdown and defueled reactor condition, where core damage is no longer possible due to SNF being only in the SFPs.
9.1 Recovery Phase	Use is made of these normal programs of widespread familiarity that deal with non-emergency operational problems in order to maximize the efficiency and effectiveness of the transition phase and minimize potential confusion and error.	Use is made of these normal programs of widespread familiarity that deal with non-emergency ~~operational~~ problems in order to maximize the efficiency and effectiveness of the transition phase and minimize potential confusion and error.	This deletion reflects a change from operational plant status to a permanently shutdown and defueled site.
9.1 Recovery Phase	The Recovery Phase goals for returning the plant to normal operations should include the following: ... 3) Initiate the NCR process, including the Event Response Plan as a blueprint for Recovery activities. 4) Activate the Outage Coordination Center for significant plant material restoration.	The Recovery Phase goals for returning the plant to normal operations should include the following: ... 3) Initiate the ~~NCR~~ Root Cause process, including the Event Response Plan as a blueprint for Recovery activities. 4) Activate the ~~Outage Coordination Center~~ Recovery Organization for significant plant material restoration.	This deletion reflects elimination of the Outage Coordination Center after the units are permanently shut down and defueled.
9.3 Responsibility and Organization	2) The Recovery Organization will consist of the normal plant management organizations as assisted by the event-related Technical Review Group, Event Investigation Team and Outage Coordination Center and as overlaid by remaining elements of the Emergency Response Organization determined necessary by the Emergency Director.	2) The Recovery Organization will consist of the normal plant management organizations as assisted by the event-related Technical Review Group, ~~and~~ Event Investigation Team ~~and Outage Coordination Center~~ and as overlaid by remaining elements of the Emergency Response Organization determined necessary by the Emergency Director.	This deletion reflects elimination of the Outage Coordination Center after the units are permanently shut down and defueled.
Appendix A	A.4 RADIATION PROTECTION & ASSESSMENT (IMMEDIATE OPERATOR RESPONSE) EP RB-14 Core Damage Assessment Procedure EP RB-14A Initial Detection of Fuel Cladding Damage EP RB-15 Post Accident Sampling System	A.4 RADIATION PROTECTION & ASSESSMENT (IMMEDIATE OPERATOR RESPONSE) ~~EP RB-14 Core Damage Assessment Procedure~~ ~~EP RB-14A Initial Detection of Fuel Cladding Damage~~ ~~EP RB-15 Post Accident Sampling System~~	This deletion reflects procedures that are no longer applicable after permanent shutdown.

Attachment 2

PROPOSED REVISION TO SITE EMERGENCY PLAN – MARKUP

Note – Emergency Plan Appendix F, “ERO On-Shift Staffing Analysis Report,” is being replaced in its entirety; thus, the associated deletions are not included in this attachment. There are no proposed changes to Emergency Plan Appendices D, E, and G; thus, they are not included in the attachment.

The Diablo Canyon Emergency Plan is organized as shown below.

- Section 1 - Definitions & Acronyms
- Section 2 - Scope and Applicability
- Section 3 - Summary of Emergency Plan
- Section 4 - Emergency Conditions
- Section 5 - Organizational Control of Emergencies
- Section 6 - Emergency Measures
- Section 7 - Emergency Facilities and Equipment
- Section 8 - Maintaining Emergency Preparedness
- Section 9 - Recovery
- Section 10 - References
- Appendix A - Procedures
- Appendix B - Offsite Agency Support Documentation
- Appendix C - Non-Applicable NUREG-0654 Standards
- Appendix D - Emergency Action Level Technical Basis Manual
- Appendix E - Evacuation Time Estimates
- Appendix F - [ERO Post-Shutdown](#) On-Shift Staffing Analysis Report
- Appendix G - Protective Action Recommendation (PAR) Strategy Bases

CROSS REFERENCE TO NUREG-0654

This appendix implements NUREG-0654 Part II, P.8.

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1. DEFINITIONS AND ACRONYMS

1.1 DEFINITIONS

This section defines terms used in the Diablo Canyon Power Plant Emergency Plan.

Annual

A calendar year beginning January 1st and ending December 31st.

Assessment Actions

Those actions taken during or after an accident to obtain and process information necessary for decisions implementing specific emergency measures.

Collective Dose

The sum of the individual doses received in a given period of time by a specified population from exposure to a specified source of ionizing radiation.

Committed Dose Equivalent (Ht,50)

The dose equivalent to organs or tissues of reference (T) that will be received from an intake of radioactive material by an individual during the 50-year period following the intake.

Committed Effective Dose Equivalent (He,50)

The sum of the products of the weighting factors applicable to each of the body organs or tissues that are irradiated and the committed dose equivalent to these organs or tissues (HE,50 = $\sum W_T H_T$,50).

Company

Refers to Pacific Gas and Electric Company.

Controlled Area

An area outside of a restricted area but inside the site boundary, access to which can be limited by the licensee for any reason.

Corrective Actions

Those emergency measures taken to ameliorate or terminate an emergency situation at or near the source of the problem in order to prevent an uncontrolled release of radioactive material or to reduce the magnitude of a release (e.g., shutting down equipment, fire fighting, repair, and damage control).

Declared Pregnant Woman (DPW)

A woman who has voluntarily informed her employer, in writing, of her pregnancy and the estimated date of conception.

Deep Dose Equivalent (H_d)

Which applies to external whole-body exposure, is the dose equivalent at a tissue depth of 1 cm (1000 mg/cm²).

Derived Air Concentration (DAC)

The concentration of a given radionuclide in air which, if breathed by the referenced man for a working year of 2,000 hours under conditions of light work (inhalation rate 1.2 cubic meters of air per hour), results in an intake of one ALI (Annual Limit of Intake). DAC values are given in Table 1, Column 3 of Appendix B to §§ 20.1001 - 20.2401.

Dose Conversion Factor (DCF)

Any factor that is used to change an environmental measurement to dose in the units of concern.

Emergency Assessment and Response System (EARS)/ Meteorological Information and Dose Assessment System (MIDAS)

The primary dose assessment program used by DCPD to project offsite dose consequences during a radiological emergency.

Early Phase

The period at the beginning of a nuclear power plant incident when immediate decisions for effective use of protective actions are required, and must be based primarily on predictions of radiological conditions in the environment. This phase may last from hours to days. For the purpose of dose projection, it is assumed to last for four days.

Emergency Action Levels (EAL)

Specific radiation levels associated with airborne, waterborne, or surface deposited concentrations of radioactive materials; or specific instrument indications (including their rates of change) that may be used as thresholds for initiating a particular emergency classification level which then requires initiating a notification procedure, or initiating a particular protective action.

Emergency Classification Levels (ECL)

The four levels of nuclear power plant emergencies: Unusual Event, Alert, Site Area Emergency, and General Emergency.

Emergency Planning Zone (EPZ)

A nominal 10-mile radius around the plant which potentially could be in the plume exposure pathway (established by federal criteria, 10 CFR 50.33.). The Diablo Canyon Emergency Planning Zone includes the federally required 10-mile radius (on land and over the ocean) and additional areas beyond the 10-mile radius as originally defined by the State of California and San Luis Obispo County, where protective actions (evacuation and/or sheltering) may be required. The land based portions of the DCPPEPZ are divided into 12 Protective Action Zones (PAZs) defined by local geographic boundaries (refer to section 2 of the DCPPEPZ for a map of the EPZ).

Emergency Worker Dose

The dose received by a DCPPE employee under emergency conditions. Emergency worker dose does not include public or occupational dose.

Exclusion Area Boundary

An exclusion area of such size that an individual located at any point on its boundary for two hours immediately following onset of the postulated fission product release would not receive a total radiation dose to the whole body in excess of 25 rem or a total radiation dose in excess of 300 rem to the thyroid from iodine exposure.

Evacuation

The urgent removal of people from an area to avoid or reduce high-level, short-term exposure, usually from the plume or from deposited activity. Evacuation may be a preemptive action taken in response to a facility condition rather than an actual release.

Facility Activation

An Emergency Response Facility is activated when the minimum staff per Figures 5-2, 5-3 and 5-4 are available and the facility is ready to assume assigned functions. Although the facility may be ready, the on-shift staff may prioritize completion of critical tasks prior to turnover.

Independent Spent Fuel Storage Installation (ISFSI)

The facility shown on ISFSI Final Safety Analysis Report (FSAR) Figure 4.1-1 that is used for dry storage of spent fuel.

Intermediate Phase

The period beginning after the incident source and releases have been brought under control and reliable environmental measurements are available for use as a basis for decisions on additional protective actions and extending until these protective actions are terminated. This phase may overlap the early and late phases and may last from weeks to many months. For the purpose of dose projection, it is assumed to last for one year.

Late Phase

The period beginning when recovery action designed to reduce radiation levels in the environment to permanently acceptable levels are commenced, and ending when all recovery actions have been completed. This period may extend from months to years (also referred to as the recovery phase).

Low Population Zone (LPZ)

The area immediately surrounding the exclusion area which contains residents, the total number and density of which are such that there is a reasonable probability appropriate protective measures could be taken in their behalf in the event of a serious accident (10 CFR 100.3). For Diablo Canyon Power Plant, the LPZ is an area encompassed by a radius of 6 statute miles on land (PAZs one and two) and the ocean out to five nautical miles.

Member of the Public

An individual in a controlled or unrestricted area. However, an individual is not a member of the public during any period in which the individual receives an occupational dose.

Monitor and Prepare

A type of precautionary action intended to advise the public within the EPZ that a serious emergency at the nuclear power plant exists and that it should monitor the situation and prepare for the possibility of evacuation, sheltering in place, or other protective actions.

Non-Essential Personnel

DCPP personnel that do not have assigned emergency response duties or are not required for maintaining the safe operation of the plant.

Owner Controlled Area (OCA)

The land area(s) adjacent to the site boundary that is owned and controlled by the licensee, whereby access can be limited by the licensee for any reason. Generally described, the DCPP OCA is the area between the Port San Luis gate and security gate A, bounded by the eastern hills directly adjacent to the site access road and the northern evacuation route, and bounded to the west by the Pacific Ocean. (NOTE: for commitments identified in the Diablo Canyon Physical Security Plan, the "Owner Controlled Area" (OCA) is within the "Site Boundary" as described in [the Defueled Safety Analysis Report \(DSAR\)UFSAR](#)).

PF_i

Protection factor for isotope is for the least effective respiratory equipment employed by persons in an area.

Population at Risk

Those persons for whom protective actions are being or would be taken. (Reference 6.)

Projected Dose

Future dose calculated for a specified time period on the basis of estimated or measured initial concentrations of radionuclides or exposure rates and in the absence of protective actions.

Protected Area (PA)

Areas to which access is strictly controlled in accordance with the station's Security Plan. This specifically includes the areas around the Power Block and the Independent Spent Fuel Storage Installation (ISFSI).

Protective Action Guide (PAG)

The projected dose to an individual, based on reference man, from an accidental release of radioactive material at which a specific protective action to reduce or avoid that dose is warranted.

Protective Action Recommendations (PARs)

Those recommended emergency measures taken before or after an uncontrolled, or controlled, release of radioactive material to prevent or minimize radiological exposures to persons likely to occur if the actions were not taken.

Protective Action Zone (PAZ)

Emergency response planning areas within the DCPPEPZ that were originally defined by the State of California and San Luis Obispo County using local geographic boundaries. There are 12 defined PAZs within the DCPPEPZ.

Public Dose

The dose received by a member of the public from exposure to ionizing radiation and to radioactive material released by licensee, or to another source of radiation either within a licensee's controlled area or in unrestricted areas. It does not include occupational dose or doses received from background radiation, as a patient from medical practices, or from voluntary participation in medical research programs.

Public Education Zone (PEZ)

The State of California Nuclear Power Plant Emergency Response Plan area enclosed by a boundary beyond the DCPPEPZ to include the area where public education is required, but planning for public protective actions (evacuation and/or sheltering) is not required.

Radiologically Controlled Area (RCA)

An area which is established for the protection of personnel from radiological hazards.

Recovery

The process of reducing radiation exposure rates and concentrations of radioactive material in the environment to levels acceptable for unconditional occupancy or use.

Recovery Actions

Those actions taken after the emergency to restore the plant as nearly as possible to its pre-emergency condition.

Reentry

Temporary entry into a restricted zone under controlled conditions.

Restricted Area

Synonymous with DCPD Protected Area.

Restricted Zone

An area with controlled access from which the population has been relocated.

Return

The reoccupation of areas cleared for unrestricted residence or use.

Sheltering

The use of structure for radiation protection from an airborne plume and/or deposited radioactive materials. As a protective action recommendation, it is instructions given to members of the public to remain indoors, turn off heating or air conditioning (as appropriate), close windows, monitor communication channels, and prepare to evacuate.

Shallow-Dose Equivalent (H_s)

Which applies to the external exposure of the skin or an extremity, is taken as the dose equivalent at a tissue depth of 0.007 centimeter (7 mg/cm^2) averaged over an area of 1 square centimeter.

Site Boundary

As depicted in the ~~Final Safety Analysis Report Update (FASAR)~~, Figure 2.1-2, Site Plan and Gaseous Effluent Release Points.

Total Effective Dose Equivalent (TEDE)

The sum of the deep dose equivalent (for external exposures) and the committed effective dose equivalent (for internal exposures).

Turnover

The exchange of the appropriate amount of information to allow another person or team to assume the responsibility for providing a function.

Unrestricted Area

An area, access to which is neither limited nor controlled by the licensee.

Whole Body

For purposes of external exposure, head, trunk (including male gonads), arms above the elbow, or legs above the knee.

Whole Body Dose

Dose resulting from uniform exposure of the entire body to either internal or external sources of radiation.

1.2 ACRONYMS

This section provides acronyms, abbreviations and symbols, other than those used within the EAL Technical Basis Manual (see attachment D), used in the Diablo Canyon Power Plant Emergency Plan.

Acronym / Abb.	Meaning
<u>APTN</u>	<u>Admin Plant Telephone Network</u>
ASW	Auxiliary Salt Water
<u>CAS</u>	<u>Central Alarm Station</u>
CCW	Component Cooling Water
<u>CDPH</u>	<u>California Department of Public Health</u>
CFR	Code of Federal Regulations
Ci	Curie
<u>CFH</u>	<u>Certified Fuel Handler</u>
<u>CR</u>	<u>Control Room</u>
CRT	Cathode Ray Tube
CVCS	Chemical and Volume Control System
<u>DAC</u>	<u>Derived Air Concentration</u>
DCPP	Diablo Canyon Power Plant
<u>DCF</u>	<u>Dose Conversion Factor</u>
DHS	Department of ~~Health Services (California State)~~ <u>Homeland Security</u>
~~DNB~~	~~Departure from Nucleate Boiling~~
<u>DOE</u>	<u>Department of Energy</u>
<u>DSAR</u>	<u>Defueled Safety Analysis Report</u>
EAL	Emergency Action Level
<u>EAS</u>	<u>Emergency Alert System</u>
EARS	Emergency Assessment and Response System
<u>ECGS</u>	<u>Emergency Core Cooling System</u>
ECL	Emergency Classification Level
<u>ED</u>	<u>Emergency Director</u>
<u>EDE</u>	<u>Effective Dose Equivalent</u>
<u>ENF</u>	<u>Emergency Notification Form</u>
<u>ENS</u>	<u>Emergency Notification System</u>
EOC	Emergency Operations Center (County)
EOF	Emergency Operations Facility
<u>EOP</u>	<u>Emergency Operating Procedure</u>
<u>EPIP</u>	<u>Emergency Plan Implementing Procedure</u>

<u>EPA</u>	<u>Environmental Protection Agency</u>
EPZ	Emergency Planning Zone
<u>ERDS</u>	<u>Emergency Response Data System</u>
ERFDS	Emergency Response Facility Data System
<u>ERO</u>	<u>Emergency Response Organization</u>
ERP	Emergency Response Plan
ESF	Engineered Safety Feature
<u>ETE</u>	<u>Evacuation Time Estimate</u>
<u>EWS</u>	<u>Early Warning System</u>
FEMA	Federal Emergency Management Agency
<u>FMT</u>	<u>Field Monitoring Team</u>
<u>FSAR</u>	<u>Final Safety Analysis Report</u>
FTS	Federal Telecommunications System
GE	General Emergency
GM	Geiger Mueller Radiation Monitor
<u>HAB</u>	<u>Hostile Action Based</u>
<u>HPN</u>	<u>Health Physics Network</u>
I	Iodine
<u>ICS</u>	<u>Incident Command System</u>
<u>IFO</u>	<u>Industrial Fire Officer</u>
IPZ	Ingestion Planning Zone
ISFSI	Independent Spent Fuel Storage Installation
JIC	Joint Information Center (A.K.A., JMC)
JMC	Joint Media Center
KI	Potassium Iodide
<u>LOCA</u>	<u>Loss of Coolant Accident</u>
<u>LAN/WAN</u>	<u>Local Area Network / Wide Area Network</u>
LPZ	Low Population Zone
M	Meter
MIDAS	Meteorological Information and Dose Assessment System
<u>NCO</u>	<u>Non-Certified Operator</u>
<u>NIMS</u>	<u>National Incident Management System</u>
<u>NM</u>	<u>Nautical Mile</u>
NRC	Nuclear Regulatory Commission
<u>NRI</u>	<u>Nuclear/Radiological Incident</u>
OCA	Owner Controlled Area
OEL	Offsite Emergency Laboratory
OES	Office of Emergency Services, SLO County or CA State
<u>OSA</u>	<u>On-Shift Staffing Assessment</u>

OSC	Operational Support Center
<u>OPTN</u>	<u>Operations Plant Telephone Network</u>
<u>PA</u>	<u>Protected Area</u>
PAD	Protective Action Decision (Offsite Agency)
PAG	Protective Action Guideline
PAR	Protective Action Recommendation (Utility)
PAZ	Protective Action Zone
<u>PBX</u>	<u>Private Branch Exchange</u>
PEZ	Public Education Zone
<u>PG&E</u>	<u>Pacific Gas and Electric Company</u>
PG&E EOC	Corporate Emergency Operations Center, Conference Rm. A & B, 245 Market Street, San Francisco
PIC	Pressurized Ion Chamber
<u>PIO</u>	<u>Public Information Officer</u>
<u>PPC</u>	<u>Plant Process Computer</u>
<u>PSTN</u>	<u>Public Switched Telephone Network</u>
<u>PTN</u>	<u>Plant Telephone Network</u>
RCA	Radiological Controlled Area
<u>RCS</u>	<u>Reactor Coolant System</u>
<u>RWP</u>	<u>Radiation Work Permit</u>
SAE	Site Area Emergency
<u>SAS</u>	<u>Secondary Alarm Station</u>
SCADA	Supervisory Control and Data Acquisition (Siren Query)
<u>SEC</u>	<u>Site Emergency Coordinator</u>
<u>SCBA</u>	<u>Self-Contained Breathing Appartatus</u>
<u>SFP</u>	<u>Spent Fuel Pool</u>
<u>SPDS</u>	<u>Safety Parameter Display System</u>
<u>SRO</u>	<u>Senior Reactor Operator</u>
SSPS	Solid State Protection System
<u>TEDE</u>	<u>Total Effective Dose Equivalent</u>
TLD	Thermo-luminescent Dosimeter
<u>TRS</u>	<u>Transient Recording System</u>
TSC	Technical Support Center
TSC-CC	Technical Support Center Computation Center
UDAC	Unified Dose Assessment Center
<u>USCG</u>	<u>United States Coast Guard</u>
UE	Unusual Event
μCi/cc	microcuries per cubic centimeter

2. SCOPE AND APPLICABILITY

There are several documents which, when taken together, describe the manner in which government agencies and Pacific Gas and Electric Company (PG&E) will respond to an emergency at Diablo Canyon Power Plant (DCPP). These documents include the State of California and San Luis Obispo County / Cities Nuclear Power Plant Emergency Response Plans and the ~~Pacific Gas and Electric Diablo Canyon~~PG&E DCPP Emergency Plan.

The ~~DCPP~~ Emergency Plan ~~for Diablo Canyon Power Plant~~ is an integral part of the licensing documentation developed to meet the requirements for an operating license. The Emergency Plan is included in Volume 11 of the Plant Manual. The ~~Diablo Canyon Power Plant~~DCPP Emergency Plan, per se, is a summary document which describes the general manner in which ~~Pacific Gas and Electric Company~~PG&E corporate and plant staff personnel will respond to an emergency situation at the site. Their responses are detailed in the Emergency Plan implementing procedures.

Revision 1 was issued in September 1977. Revision 2 was promulgated in February 1980 as a result of major changes in content and format to meet the requirements of NRC Regulatory Guide 1.101, "Emergency Planning for Nuclear Power Plants."

New emergency planning regulations went into effect in late 1980 which were codified in Appendix E of Title 10, Part 50 of the Code of the Federal Regulation (10 CFR 50), effective November 3, 1980. These changes were implemented by the issuance of NUREG-0654, Revision 1 (Reference 2). Consequently, it was necessary to again revise the Emergency Plan to incorporate the requirements of NUREG-0654.

DCPP permanently ceased power operations at the end of its operating licenses in 2024 for Unit 1 and 2025 for Unit 2. Upon docketing of the certifications required by 10 CFR 50.82(a)(1)(i) and 10 CFR 50.82(a)(1)(ii), pursuant to 10 CFR 50.82(a)(2), the 10 CFR 50 licenses for DCPP no longer authorize operation of the reactors or emplacement or retention of fuel in the reactor vessels. Revision X of the DCPP Emergency Plan was issued to reflect the permanently shutdown and defueled condition.

All nuclear power plant emergency response plans are written to carry out the provisions and intent of 10 CFR 50, Appendix E. This statute requires nuclear power plant licensees to prepare and submit their emergency plans together with state and local (County) emergency response plans, to the Nuclear Regulatory Commission (NRC). The Federal Emergency Management Agency (FEMA) is charged to review the State and County plans for adequacy, measured according to the standards listed in joint NRC-FEMA documentation (Reference 2). In this capacity, FEMA required State and County nuclear power plant emergency response to be revised to meet the new federal standards. The NRC is charged to assess the ~~Diablo Canyon Power Plant~~DCPP Emergency Plan and its implementation and to review the FEMA findings to determine the adequacy of the overall state of emergency preparedness as a condition for an operating license.

~~Diablo Canyon~~DCPP has an Independent Spent Fuel Storage Installation (ISFSI). The Diablo Canyon ISFSI site is located east of the plant near the raw water reservoir and the 230-kV switchyard. Thus, in addition to the requirements discussed above, the DCPP Emergency Plan meets the requirements of 10 CFR 72.32(c).

The provisions of this document and its implementing procedures carry out the policy for an emergency organization as stipulated by the Chief Nuclear Officer, the Program Directive, "Emergency Preparedness," OM10. The Emergency Plan is intended to serve several purposes, including:

- 1) Establish the emergency duties and responsibilities of the various members of the plant and corporate support staff.
- 2) Inform all affected agencies and organizations of the interfaces which have been established between the plant staff and participating company and non-company support groups.
- 3) Provide a convenient means for gathering together, by way of appendices to the Plan, the plans of the various participating offsite agencies such that plant staff personnel are made aware of the basic responsibilities and capabilities of these agencies.
- 4) Provide an overview of the facilities, equipment, and procedures utilized in an emergency to inform and assist those offsite agencies who must coordinate their planning and response activities with those of the plant and corporate staff.
- 5) Fulfill licensing requirements of the Nuclear Regulatory Commission.

This Plan, in conjunction with the San Luis Obispo County / Cities Nuclear Power Plant Emergency Response Plan, provides for planning in the geographical area bounded by possible plume exposure pathways. According to federal guidelines, this is, as a minimum, an area covered by a radius of approximately 10 miles from the power plant. With this federally defined radius as a minimum, the federal government has delegated to the states the responsibility to define the Emergency Planning Zone (EPZ) unique to each nuclear power plant site within their individual state boundaries. As a result, in the State of California for the San Luis Obispo area, the EPZ emergency Planning Zone includes the nominal 10-mile radius around the plant as well as additional areas beyond the 10-mile radius as originally defined by the State of California and San Luis Obispo County for emergency response planning (see figure below).

PG&E has the non-delegable responsibility for recommending appropriate protective actions to State and Local authorities to cover areas within the EPZ to which the public has access, including areas over water.

Below is a map of the DCPPE **Emergency Planning Zone (EPZ)** showing Protective Action Zones (PAZs) 1-12 and a 5 and 10 nautical mile safety zone.



3. SUMMARY OF EMERGENCY PLAN

There are several documents which, when taken together, describe the manner in which ~~The the Diablo Canyon Power Plant~~DCPP Emergency Plan provides guidance to company personnel in emergency classification, appropriate response actions, and outside agency relationship and response. P~~G&Eacific Gas and Electric Company~~ will be referred to in this text as "The Company".

The ~~DCPP Emergency~~ Plan and its Appendices are included as one volume of the ~~Diablo Canyon~~DCPP Plant Manual. Other volumes of the Plant Manual contain the implementing procedures which provide detailed instructions to plant staff personnel for responding to various postulated emergency situations and for performing the various analytical assessments which are required to support the response.

The identification and classification of an emergency situation is described in Section 4, EMERGENCY CONDITIONS. Standard NRC emergency classifications are used to facilitate identification and non-technical assessment of emergency conditions. The use of emergency classifications assist various affected parties in understanding the potential severity and in initiating a pre-planned response during the early stages of an emergency situation.

The normal ~~plant operating on shift~~ and emergency organizations are described in Section 5, ORGANIZATIONAL CONTROL OF EMERGENCIES. This Section also summarizes the relationship between the plant, corporate staff, and participating offsite emergency authorities, and defines responsibilities of individuals and organizations involved in emergency response organizations.

In Section 6, EMERGENCY MEASURES, specific emergency response measures are outlined. Also addressed are the activation and actions of the emergency organization and procedures for handling onsite evacuation as well as personnel injury.

Emergency response facilities, communication systems, radiological dose assessment, protective measures, and medical facilities are described in Section 7, EMERGENCY FACILITIES AND EQUIPMENT.

The means to ensure emergency plans continue to be effective are identified in Section 8, MAINTAINING EMERGENCY PREPAREDNESS.

Section 9, RECOVERY, describes general, long term arrangements for restoring the plant to a safe status.

Section 10, REFERENCES, provides a listing of material referred to in other sections.

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4. EMERGENCY CONDITIONS

4.1 EMERGENCY CLASSIFICATION LEVELS (ECL)

Events having actual or potential emergency implications are placed into one of four emergency classification levels in accordance with established criteria. The emergency classification levels (ECL) are:

- UNUSUAL EVENT (UE)
- ALERT
- SITE AREA EMERGENCY (SAE)
- GENERAL EMERGENCY (GE)

Definitions of the four ECLs are provided in Appendix D.

The principal purposes of the standardized classification system are threefold:

- To assure timely notification of particular events which could lead to significant consequences given subsequent operator error or equipment failure, or which might be indicative of more serious conditions not at the time fully appreciated.
- To provide a non-technical description of the actual or likely implications of the event which can be easily communicated to and understood by various affected parties during the early stages of the event.
- To provide a vehicle for setting in motion prearranged emergency response activities by all affected parties.

All the initiating conditions of NEI 99-01, "Methodology for Development of Emergency Action Levels," and the postulated design basis accidents in the Diablo CanyonDCPP FinalDefueled Safety Analysis Report (FSARDSAR) have been classified in accordance with the criteria discussed in Sections 4.1.1, 4.1.2, 4.1.3, and 4.1.4 and are listed in Appendix D and Appendix F. The Emergency Plan Implementing Procedures (EPIPs) are listed in Appendix A.

Appendix D provides specific instruments, parameters, or equipment status used at Diablo Canyon Power PlantDCPP to classify events specified in NEI 99-01. Many of the "UNUSUAL EVENTS" included in NEI 99-01 are also reportable under the reporting requirements of 10 CFR 50.72. Diablo CanyonDCPP Administrative Procedures contain the detailed criteria and instructions necessary to evaluate and report operating events not classified as emergencies to the NRC.

Appendix F lists the ~~FSAR-DSAR category IV limiting faults (Reference 3)~~ design basis accident and classifies ~~them~~ it in accordance with the emergency classification criteria discussed in Sections 4.1.1, 4.1.2, 4.1.3, and 4.1.4. ~~Many of the transients analyzed in Chapter 15 of the FSAR do not result in degraded plant safety and therefore need not be included in the emergency classification. Those transients, which do indicate a potential degradation in the level of plant safety, are either included in the emergency classification or the effect of the transient (e.g., fuel failure, abnormal primary system temperature and/or pressure, abnormal primary system leakage, unusual radiation levels) which causes it to degrade plant safety is included in the emergency classification.~~

The bases for notifying off-site response organizations are established by the identification of Emergency Action Levels (EALs). These in turn determine which one of the classifications is an appropriate assessment of the severity of the accident. The classification is then the non-technical assessment transmitted to off-site government agencies which provides the vehicle mentioned above for setting emergency response activities in motion.

4.1.1 UNUSUAL EVENT ~~(UE)~~

4.1.1.1 Release Potential and Significance

No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occur.

4.1.1.2 Purpose

The purpose of the UNUSUAL EVENT classification is to:

- 1) Assure the first step in any response later found necessary has been carried out.
- 2) Bring the ~~on-shift~~operating staff to a state of readiness.
- 3) Provide systematic handling of UE information and decision making.

4.1.1.3 General Actions of Plant Staff

- 1) Promptly inform local, State, and off-site Company support agencies of the nature of the UNUSUAL EVENT.
- 2) Augment on-shift resources as required.
- 3) Assess and respond.
- 4) Close out with verbal summary to off-site support agencies; followed by a written summary within 24 hours (or the next working day).

OR

- 5) Escalate to a more severe emergency classification level.

4.1.1.4 General Actions of Local and State Off-Site Authorities

- 1) Provide medical, fire, and security assistance if requested.
- 2) Standby until verbal close-out.

OR

- 3) Take appropriate actions for event.

4.1.2 ALERT

4.1.2.1 Release Potential and Significance

Releases at this level would ordinarily not require near-term protective measures, (such as evacuation) beyond the site boundary. County protective action decisions (PADs) within the Low Population Zone (LPZ) might be made as a precautionary action if a release near the Technical Specification maximum was actually expected and the potential existed for a release of extended duration or for escalation to a more severe emergency classification level. The need for near-term protective action beyond the boundary of the LPZ would be unnecessary.

4.1.2.2 Purpose

The purpose of the ALERT classification is to:

- 1) Augment on-shift resources by activating the Technical Support Center (TSC), Operational Support Center (OSC), and the Emergency Operations Facility (EOF) and staffing the Joint Information Center (JIC).
- 2) Provide off-site authorities with current status information.

4.1.2.3 General Actions of Plant Staff

- 1) Promptly inform local, State, and off-site company support agencies of the nature and status of the ALERT condition.
- 2) Provide a dedicated individual (Advisor to County) for plant status updates to off-site authorities.
- 3) PG&E News Department will provide periodic media briefings (joint with off-site authorities).
- 4) Dispatch on-site and off-site monitoring teams.
- 5) Provide periodic plant status updates to off-site authorities (approximately every 45 minutes or immediately if situation warrants).
- 6) Provide periodic meteorological assessments to off-site authorities and, if any releases are occurring, dose estimates for actual releases.
- 7) Close out or recommend reduction in emergency classification level by verbal summary to off-site authorities, followed by written summary within 8 hours.

OR

- 8) Escalate to a more severe emergency classification level.

4.1.2.4 General Actions of Local and State Off-Site Authorities

- 1) Provide fire and security assistance if requested.
- 2) Augment resources by activating the County Emergency Operations Center (EOC).
- 3) Alert to standby status key emergency personnel including monitoring teams and associated communications.
- 4) Provide confirmatory off-site radiation monitoring and ingestion pathway dose projections if actual releases substantially exceed Technical Specification limits.
- 5) Maintain ALERT status until verbal close-out or reduction in emergency classification level.

OR

- 6) Take appropriate actions for event.

4.1.3 SITE AREA EMERGENCY ~~(SAE)~~

4.1.3.1 Release Potential and Significance

Any releases are not expected to result in exposure levels which exceed EPA Protective Action Guidelines ~~(PAGs)~~ exposure levels beyond the site boundary.

Radiological releases that reach the level resulting in an ECL of a Site Area Emergency would almost certainly require that protective measures be taken on-site. County PADs may result in some precautionary actions to be taken in the downwind LPZ sectors. The appropriate near-term response for such an occurrence is to perform an assessment of conditions as they actually exist and take action based on this assessment, as discussed below.

4.1.3.2 Purpose

The purpose of the SITE AREA EMERGENCY classification is to:

- 1) Assure that all response centers are activated.
- 2) Assure that monitoring teams are dispatched.
- 3) Assure that personnel required for evacuation of near-site areas are at duty stations if the situation becomes more serious.
- 4) Provide current information for off-site authorities and the public.

4.1.3.3 General Actions of Plant Staff

- 1) Promptly inform local, State, and off-site company support agencies of the nature of the SITE AREA EMERGENCY condition and its status.
- 2) Augment resources by activating the TSC, OSC, EOF, and staffing the JIC if not already completed. Resources may be provided to Corporate emergency response facilities, if needed.
- 3) Provide a dedicated individual (Advisor to the County) for plant status updates to off-site authorities.
- 4) PG&E News Department will provide periodic media briefings (joint with off-site authorities).
- 5) Dispatch on-site and off-site monitoring teams, if not already completed.
- 6) Evacuate non-essential personnel from the Site.
- 7) Make senior technical and management staff on-site available for consultation with the NRC, the State, and the County authorities on a periodic basis.
- 8) Provide meteorological and dose estimates to off-site authorities for actual releases.
- 9) Provide release and dose projections based on available plant condition information and foreseeable contingencies.
- 10) Close out or recommend reduction in emergency classification level by briefing off-site authorities at County ~~Emergency Operations Center (EOC)~~, followed by written summary within 8 hours.

OR

- 11) Escalate to GENERAL EMERGENCY classification level.

4.1.3.4 General Actions of Local and State Off-Site Authorities

- 1) Provide assistance if possible.
- 2) Activate Early Warning System, including Emergency Alert System and provide immediate public notification of emergency status and provide public periodic updates.
- 3) Augment resources by activating the County EOC if not activated earlier.
- 4) Activate key emergency personnel including monitoring teams and associated communications.
- 5) If not already completed, notify and activate other emergency personnel (e.g., those needed for evacuation) and mobilize personnel to duty stations.
- 6) Provide off-site monitoring results to DCPD and others. Jointly assess monitoring results with DCPD.

- 7) Continuously assess information from DCPD and off-site monitoring regarding changes to protective actions already initiated for public and mobilizing evacuation resources.
 - 8) Assess need for action to prevent or mitigate ingestion pathway exposure.
 - 9) Provide joint media briefings with the Company.
 - 10) Maintain SAE status until close-out or reduction of emergency classification level.
- OR
- 11) Take appropriate actions for event.

4.1.4 GENERAL EMERGENCY ~~(GE)~~

4.1.4.1 Release Potential and Significance

Releases can be reasonably expected to exceed EPA ~~PA~~Protective Action Guideline exposure levels offsite for more than the immediate site area.

A condition where an actual release exceeds the levels for a GENERAL EMERGENCY would require protective actions on-site and in the downwind areas of the LPZ. Lack of available shelter for many of the persons in this area (agricultural workers, visitors to Montana de Oro State Park) makes precautionary evacuation of the LPZ and the ocean to 5 Nautical Miles (NM) the appropriate response following a GENERAL EMERGENCY declaration. For areas beyond the LPZ, the appropriate near-term action is to direct the remainder of the EPZ to monitor and prepare for possible protective actions. The County may also take additional actions such as deploying law enforcement agencies in preparation for possible evacuation or directing transients to return to their homes outside the EPZ. The appropriate on-going response for such an occurrence is to perform continuous assessments of conditions as they actually exist and take action based on this assessment, as discussed below.

The initial Protective Action Recommendation (PAR) is included with the offsite response organization notification of a General Emergency within 15 minutes of declaration of a General Emergency.

4.1.4.2 Purpose

The purpose of the GENERAL EMERGENCY classification is to:

- 1) Initiate pre-determined protective actions for the public.
- 2) Provide continuous assessment of information from the Company and off-site measurements.
- 3) Initiate additional measures as indicated by event releases or potential releases.
- 4) Provide current information for off-site authorities and the public.

4.1.4.3 General Actions of Plant Staff

- 1) Promptly inform local, State, and off-site company support agencies of the nature of the GENERAL EMERGENCY condition and status.
- 2) Augment resources by activating the TSC, OSC, EOF, and staffing the JIC if not already completed. Resources may be provided to Corporate emergency response facilities, if needed.
- 3) Assess and respond.
- 4) Evacuate non-essential personnel from the site, if not already done earlier.
- 5) Dispatch on-site and off-site monitoring teams, if not already completed.
- 6) Provide a dedicated individual (Advisor to County) for plant status updates to off-site authorities.
- 7) Provide periodic media briefings (joint with off-site authorities) from the ~~Joint Information Center (JIC)~~.
- 8) Make senior technical and management staff on-site available for consultation with the NRC, the State, and the County on a periodic basis.
- 9) Provide meteorological and dose estimates to off-site authorities for actual releases.
- 10) Provide release and dose projections based on available plant condition information and foreseeable contingencies.
- 11) Close out or recommend reduction in emergency classification level by briefing off-site authorities at County ~~Emergency Operations Center (EOC)~~, followed by written summary within 8 hours.

4.1.4.4 General Actions of Local and State Off-Site Authorities

- 1) Provide assistance if possible.
- 2) Activate Early Warning System, including Emergency Alert System and provide immediate public notification of emergency status and provide public periodic updates.
- 3) Evacuate the LPZ. Assess need to extend evacuation distance beyond the LPZ.
- 4) Augment resources by activating the County EOC if not activated earlier.
- 5) Activate key emergency personnel including monitoring teams and associated communications.
- 6) Mobilize emergency personnel to duty stations within ~~EPZ~~Emergency Planning Zone and activate others to standby status.
- 7) Provide off-site monitoring results to DCCP and others. Jointly assess monitoring results.

- 8) Continuously assess information from DCPD and off-site monitoring regarding changes to protective actions already initiated for the public and mobilizing evacuation resources.
- 9) Assess need for action to prevent or mitigate ingestion pathway exposure.
- 10) Provide media briefings jointly with the Company.
- 11) Maintain GENERAL EMERGENCY status until close-out or reduction of emergency classification level.

4.2 CLASSIFICATION AND DECLARATION OF EVENTS

Emergency Plan Appendix D Section 3 contains the timeliness bases and requirements for classification and declaration of an off-normal condition.

During an actual radiological emergency (not appropriate for drills / exercises) a delay in emergency declaration beyond 15 minutes may be necessary to address extenuating circumstances. Such delays could be found acceptable during an actual emergency if the situation meets all of the following conditions:

- The delay has no significant impact on the implementation of adequate measures to protect the public health and safety.
- The delay was caused by a licensee actively performing another action immediately needed to protect the public health and safety such that a delay in declaration qualitatively represents the lesser risk.
- The cause of the delay was not reasonably within the licensee's ability to foresee and prevent.

4.3 SPECTRUM OF POSTULATED ACCIDENTS

The parameter values, equipment status and initiating conditions for each of the four emergency classification levels are identified in Appendix D. A more comprehensive discussion of various accident assessment equipment and capabilities is given in Sections 6 and 7 of the Emergency Plan.

4.4 CROSS REFERENCE TO NUREG-0654

NUREG-0654	DCPD Emergency Plan
D.1	Appendix D
D.2	Appendix D, Appendix F
E.1	4.1.1.3.1, 4.1.2.3.1, 4.1.3.3.1, 4.1.4.3.1
H.5	Appendix D
I.1	Appendix D
J.7	4.1
J.10.m	Appendix G, Appendix E

* EAL cross reference to NEI 99-01 contained in Appendix D.

- Appendix D contains the NRC approved criteria for plant events including plant conditions.
- Appendix E contains the evaluation time estimate study for the DCCP Emergency Planning Zone based upon population, time of day and for various weather conditions.
- Appendix F contains the post-shutdown On-Shift Staffing Assessment Study (OSA) and includes analysis of the FDSAR Condition IV Accidents design basis accident.
- Appendix G contains the protective action recommendation plan based upon radiological dose, meteorological, and plant conditions.

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5. ORGANIZATIONAL CONTROL OF EMERGENCIES

In the event of an emergency, the DCPD normal plant operational organization is supplemented with an organization specifically designed to control emergency conditions. The emergency response organization (ERO) may, depending upon the severity of the incident, consist of shift operating staff or a comprehensive emergency force composed of plant, corporate, and contract personnel. This section describes the normal plant organization, the onsite emergency organization, and governmental agencies responsible for directing offsite emergency response activities.

5.1 NORMAL PLANT ORGANIZATION

The Chief Nuclear Officer (CNO) has executive responsibility for ~~Diablo Canyon Power Plant (DCPP)~~ and the Diablo Canyon ISFSI. The vice president nuclear generation reports to the Chief Nuclear Officer and has overall responsibility for in-plant functions, ISFSI functions, and plant-corporate interfaces. The organizational structure for DCPD is shown in the DCPD ~~FSAR Update~~. The organizational structure for the ISFSI is shown in the ~~DCPP~~ ISFSI FSAR.

5.1.1 Emergency Planning

The vice president nuclear generation has responsibility for overall emergency preparedness at DCPD and Diablo Canyon ISFSI. The organizational structure is described in DCPD ~~DSAR~~ and ISFSI FSARs.

The emergency planning manager is assigned the responsibility for preparation and maintenance of the DCPD Emergency Plan and its implementing procedures. The emergency planning manager also provides the corporate interface with offsite emergency response organizations including San Luis Obispo County, ~~the~~ State of California, ~~the Nuclear Regulatory Commission (NRC), the Federal Emergency Management Agency (FEMA), the~~ U.S. Coast Guard (USCG), ~~the~~ Environmental Protection Agency (EPA), and other Federal, State, and local agencies involved in DCPD emergency response.

The emergency planning manager is assigned the responsibility for onsite coordination of drills and exercises, maintenance of emergency response facilities and the Early Warning System (EWS), review and revision of the DCPD Emergency Plan and implementing procedures, and maintenance of the emergency response organization. These duties may be delegated to the emergency planning staff appropriate with organizational resources.

The emergency planning group provides training to the site emergency response organization, the Company support organization and assists, as required, with training of offsite emergency response organizations.

5.1.2 Balance of Normal Station Organization

See DCPD [FDSAR](#) Chapter 13 for further organization details.

5.1.3 Minimum On-Shift ERO Staffing Requirements

At DCPD, a minimum staff of [212](#) personnel is required to be on-shift during operation of both [units spent fuel pools \(SFPs\)](#) and the ISFSI. This implements the criteria of NUREG-0654, Table B-1 and [NUREG 0737 Supplement 1, Table 2](#). The normal shift complement provides staffing for the on-shift emergency response organization. Shift emergency response positions for the functional assignments are shown in Table 5-1.

A detailed analysis, that forms the technical basis of the on-shift emergency response organization staffing, documents the demonstration that on-shift personnel assigned Emergency Plan implementation functions are not assigned responsibilities that would prevent the timely performance of their assigned functions as specified in Table 5-1 is contained in Appendix F.

5.2 NORMAL CORPORATE ORGANIZATION

5.2.1 Nuclear Power Generation Business Unit

The CNO has executive responsibility for the safe operation of DCPD. An important part of this responsibility focuses on the coordination and development of both Company and DCPD Emergency Plans and preparedness as an essential element in assuring the public health and safety.

5.2.2 Other Supporting Departments

Other Company departments provide support services along normal departmental areas of responsibility. Some examples are governmental relations, news department, law, and insurance.

5.3 DIABLO CANYON ON-SHIFT EMERGENCY RESPONSE ORGANIZATION

5.3.1 Control Room

The fundamental Control Room responsibilities during an emergency are to operate the plant systems, monitor unit conditions and take corrective actions to regain control, minimize accident consequences, and terminate the incident.

5.3.2 Shift ~~Manager~~Supervisor

The Shift ~~Manager~~Supervisor is responsible for activating the DCPD Emergency Plan and assumes emergency response command and control until relieved by the Site Emergency Coordinator or Emergency Director. The Shift Supervisor shall be qualified as a Certified Fuel Handler (CFH).

- 1) Prior to being relieved, the Shift ~~Manager~~Supervisor is responsible for implementing the following non-delegable activities and authorizations:
 - a) Perform the initial evaluation and classification of the event.
 - b) Assign plant personnel to positions in the Site Emergency Organization.
 - c) Provide ~~Protective Action Recommendations (PARs)~~ regarding evacuation, sheltering, or other emergency measures to offsite government agencies.
 - d) Authorize the sounding of the site emergency signal.
 - e) Authorize the evacuation of the plant site and specify the appropriate evacuation route.
 - f) Authorize overtime and other expenses associated with establishing and maintaining an appropriate site emergency organization.
 - g) Provide direction for all emergency response operations performed by Company personnel in the San Luis Obispo County area.
 - h) Authorize any extraordinary emergency measures, such as the use of Company emergency personnel exposure limits.
 - i) Approve information for inclusion in media releases.
- 2) The Shift ~~Manager~~Supervisor is responsible for ensuring the performance of the following delegable activities:
 - a) Notification of:
 - (1) Plant personnel
 - (2) Company offsite emergency organizations
 - (3) Local non-Company emergency support groups
 - (4) San Luis Obispo County, California Office of Emergency Services (CA OES) and the ~~NRC~~nuclear Regulatory Commission
 - b) Maintain liaison with offsite emergency support groups.

5.3.3 Certified Fuel Handler~~Shift Foreman~~

Two ~~Shift Foremen~~CFHs are on-shift in the normal operating organization, one of which is the Shift Supervisor. ~~One Shift Foreman is assigned to each unit. A third Shift Foreman is normally staffed on-shift for work control and is designated as the Work Control Shift Foreman (WCSFM).~~

During an emergency, the Shift ManagerCFH performs the following ~~assigns each Shift Foreman to perform various roles such as:~~

- 1) Emergency communications
- 2) Technical support for plant system engineering, repair, and corrective actions
- 3) Assessment of the incident including initial classification and development of a Protective Action Recommendation
 - a) ~~Plant management representation in the Control Room, including:~~Performing function of Shift Technical Advisor (STA)/Incident Assessor (IA).
- 4)
 - ~~b)~~a) Managing operational activities.
 - ~~e)~~b) Supervising the Control Room management in the operational control of the plant.
 - ~~d)~~c) Advising the Site Emergency Coordinator on operational matters.
- 2) ~~Performing emergency communications.~~

~~Shift Foremen will have either a STA or IA qualification consistent with the guidance of INPO ACAD 90-003, "Guidelines for the Training and Qualification of Shift Technical Advisors." This qualification is to ensure technical support for plant system engineering, repair, and corrective actions. The STA/IA designated Shift Foreman provides assessment of the incident including initial classification and development of a Protective Action Recommendation. If the emergency involves loss of heat sink (core cooling source), or some other occurrence for which reactor core damage is a possibility, the STA/IA is primarily responsible for evaluation of this aspect of the emergency. The Shift Manager may assign these duties to another on-shift individual with appropriate functional qualifications that is not already filling a minimum on-shift staff position.~~

5.3.4 Non-Certified Operators (NCOs)

These are positions in the normal plant organization that continue to perform plant operational manipulations in the emergency organization when not otherwise assigned. One NCO is assigned to each Unit and a third NCO is a rover between Units.

5.3.5 ~~Shift Technical Advisor/Incident Assessor~~

~~The STA/IA is a functional requirement (not a position) for the on-shift organization. The function of the STA/IA is to provide engineering expertise on shift, which may be fulfilled by an STA/IA qualified licensed Senior Reactor Operator (SRO) acting in a dual functional role (preferably a Shift Foreman with functional qualifications).~~

5.3.6 Shift Phone Talker

~~Two Shift Phone Talkers are positions in the on-shift organization. The primary tasks of the Shift Phone Talkers are to verbally communicate the Emergency Notification Forms to the County, State, and U.S. Coast Guard (if necessary) and to activate the Voice Automated Notification System (VANS). These positions are staffed by on-shift individuals with the necessary functional qualifications. The Shift Manager may assign these tasks to an on-shift individual with appropriate functional qualifications.~~

5.3.75.3.5 Security Personnel Watch Commander

Security personnel is per the Security Plan. The Security Watch Commander is a normal plant organization position that is generally located in the main Protected Area, but may be located elsewhere depending on security strategy. The Security Watch Commander is responsible for onsite emergency assembly and accountability, the results of which are reported to the Site Emergency Coordinator.

5.3.85.3.6 Evacuation Coordinator

This is a temporary position that coordinates evacuation of nonessential personnel from the site if warranted by the situation. It would normally be assigned to a member of the security staff, such as the TSC Security Advisor, as per EP G-5.

5.3.95.3.7 Evacuation Team

These are temporary positions consisting of a C&RP Technician and an assigned individual who will accompany the evacuees in the event a site evacuation is necessary. The basic functions of this team are:

- 1) Assure evacuees stay together and take the correct route.
- 2) Assist in personnel accountability at the evacuation offsite assembly area.
- 3) Secure radiation survey equipment and survey personnel and vehicles at the collection area and arrange for decontamination as required.

5.3.105.3.8 First-Aid and Medical

The importance of providing prompt first-aid is well recognized. First aid training is provided for plant personnel and includes voluntary certification for Cardio-pulmonary resuscitation. An onsite medical facility and EMT qualified Firefighters are available to provide basic life support capabilities at all times. During off hours, staffing is limited to an EMT qualified Firefighter.

5.3.115.3.9 Fire Department

This department is responsible for onsite firefighting, rescue operations, and first-aid.

5.4 DIABLO CANYON EMERGENCY RESPONSE ORGANIZATION

5.4.1 Emergency Response Staffing

- 1) The ~~Emergency Response Organization (ERO)~~ is grouped into assigned teams for rotating on call duties and to ensure that continuous 24-hour operation can be sustained. The ERO is fully activated and staffed for emergencies classified as Alert, Site Area Emergency, or General Emergency.
- 2) The Emergency Response Organization minimum staffing requirements and functional responsibilities are provided in Section 5.1~~98~~ Table 5-1~~B~~.

5.5 EMERGENCY RESPONSE FACILITIES AND ORGANIZATIONS

The ~~DCPP~~~~Diablo Canyon Power Plant~~ emergency organization operates from onsite emergency centers: ~~the~~ Control Room (CR), ~~the~~ Technical Support Center (TSC), and ~~the~~ Operational Support Center (OSC). The organization onsite is supported by offsite emergency response facilities: ~~the~~ Emergency Operations Facility (EOF) and ~~the~~ Joint Information Center (JIC).

Section 5.2~~19~~ Figure 5-1, Overall Command and Control Structure, illustrates these organizations.

5.6 TECHNICAL SUPPORT CENTER ~~(TSC)~~

The primary function of the TSC is to provide an onsite location, independent of the Control Room, where the overall coordination of the onsite emergency response effort takes place. The TSC staff augments the Control Room in the diagnosis of plant conditions, recommends corrective actions, and coordinates plant and unit emergency activities. The TSC may communicate the notifications ~~and PARs to the~~ County, State agencies ~~and~~ NRC.

More specifically, functional assignments at the TSC include (primary ~~ERO~~~~Emergency Response Organization~~ assignments are indicated in parenthesis):

- 1) Engineering and Technical Analysis (Engineering Advisor)

Perform systems analysis, resolve ~~core/thermal hydraulics,~~ electrical, ~~instrumentation,~~ and mechanical engineering problems, and diagnose plant conditions. Maintain liaison with offsite technical support. Provide coordination and supervision of all Company support teams operating at or in the vicinity of the site.
- 2) Radiological Protection (Radiological Advisor)

Assess onsite radiological conditions, recommend radiation protection measures, direct radiological surveys and decontamination actions, assist in assessment of offsite consequences as requested by the response organization at the EOF.

Coordinate and supervise all onsite radiological surveys and investigations and provide management of the onsite radiation protection program.

3) Communicator (ENS Communicator)

Notify affected individuals and agencies-NRC of the emergency, establish initial contact and maintain communications with offsite groups, transmit instructions and information to and from the Site Emergency Coordinator.

Section 5.229 Figure 5-2, TSC Organization, illustrates the TSC organization chart. Specific TSC position functions are:

5.6.1 Site Emergency Coordinator

The Site Emergency Coordinator (SEC) is responsible, under the general direction of the Emergency Director, for directing onsite emergency actions from his position at the TSC Technical Support Center.

The Site Emergency Coordinator has the authority to make ERO assignments according to availability and qualification as appropriate to carry out response activities.

- 1) The Site Emergency Coordinator will establish the emergency response organization in the TSC.
- 2) After the TSC is activated, the Site Emergency Coordinator will relieve the Shift ManagerSupervisor.
- 3) Prior to the Emergency Director assuming his position at the Emergency Operation Facility, the Site Emergency Coordinator is responsible for implementing the following non-delegable activities and authorizations:
 - a) Providing direction for all emergency response operations performed by Company personnel in the San Luis Obispo County area.
 - b) Requesting assistance as necessary for onsite or offsite radiation monitoring from Federal agencies, either through the County/State emergency response organization once established, or directly.
 - ~~c) — Authorizing any Protective Action Recommendations (PARs).~~
 - ~~d)c)~~ Authorizing changes in the Emergency Classification and NRC notification ~~of offsite authorities~~.
 - ~~e)d)~~ Authorizing any extraordinary emergency measures, such as the use of Company emergency personnel exposure limits.
 - ~~f)e)~~ Authorizing the ingestion of potassium iodine (KI) to onsite personnel.
 - ~~g)f)~~ Authorizing the ingestion of KI to offsite monitoring personnel.
 - ~~h)g)~~ Approving information for inclusion in media releases.

- ~~i)h)~~ Authorizing overtime and other expenses associated with maintaining an appropriate onsite Emergency Organization throughout the emergency response period.
- ~~j)i)~~ Authorizing the evacuation of the plant site and specifying the appropriate evacuation route.
- 4) The Site Emergency Coordinator is responsible for ensuring the performance of the following delegable activities:
 - a) Coordinating and directing all onsite activities.
 - b) Maintaining liaison with offsite emergency support groups providing onsite assistance and support the Emergency Director in the development of a coordinated recovery action plan for onsite.
 - c) Recommending changes in Emergency Classification to the Emergency Director.
 - d) Managing TSC Operations. This includes:
 - Collecting and analyzing technical information to assess plant operations.
 - Providing technical counsel in support of the ~~Control Room (CR)~~.
 - Assessing radiological release potential.
 - Determining actual or potential release rates.
 - On-site exposure monitoring and contamination control.
 - Repairing plant components or systems as required by the emergency and / or consequences.
 - ~~e)~~ Overseeing TSC communications staff.
 - ~~e)f)~~ Providing management direction to the ~~Control Room (CR)~~ through the Operations Advisor (TSC).
 - ~~f)g)~~ Providing management direction to the ~~Operational Support Center (OSC)~~ through the OSC Director.
 - ~~g)h)~~ Notifying plant staff and other affected individuals and organizations of the emergency and Assigning plant staff personnel to positions in the Onsite Emergency Organization as appropriate.
 - ~~h)i)~~ Establishing and maintaining onsite personnel accountability.
- 5) Authorizing the ingestion of KI to onsite personnel.

5.6.2—TSC Director

~~The TSC Director is responsible for the following activities:~~

- ~~1) Set up and staffing of the TSC and providing assistance to the SEC in performance of their response activities.~~
- ~~2) Ensuring adequate staffing is available in the TSC.~~
- ~~3) Coordinating ongoing TSC operations~~

5.6.35.6.2 Radiological Advisor

The Radiological Advisor is responsible for the following activities:

- 1) Coordinating emergency radiological response efforts.
- 2) Advising the Site Emergency Coordinator on matters relating to radiological safety
- 3) Providing Radiological Engineering support to the TSC
- 4) Coordinating and supervising operation and control of radiological emergency data transmission systems, review and evaluation of data from these systems, and development of data and status updates for transmission offsite.
- 5) Enabling TSC radiation monitors and verifies habitability.
- 6) Trending radiation levels in the plant.
- 7) Serving as the OSC Director primary TSC contact for radiological matters.
- 8) Preparing release pathway information for dose assessment purposes.
- 9) Directing in-plant surveys, direct analysis of in-plant samples, and establish radiation and/or contamination control and boundaries.
- 10) Determining radiation protection access requirements for entry to radiologically controlled area.
- 11) Determining when an emergency exposure authorization is required and provide justification to the Site Emergency Coordinator or Emergency Director.
- 12) Coordinating briefing and dispatch of personnel into affected plant areas with the OSC Director.
- ~~5)13) Maintaining proper records and logs. Prior to UDAC staffing, assisting with PAR development based on Control Room or TSC dose assessment.~~

5.6.4 Radiological Data Processor

The Radiological Data Processor is responsible for the following activities:

- ~~1) Enabling TSC radiation monitors and verifies habitability.~~

- ~~2) Trending radiation levels in the plant.~~
- ~~3) Serving as the primary contact for Site RP Coordinator in the OSC.~~
- ~~4) Performing offsite Dose Calculations if EOF is unavailable.~~

~~5.6.5 Maintenance Advisor~~

~~The Maintenance Advisor is responsible for the following activities:~~

- ~~1) Coordinating maintenance activities between TSC and OSC~~
~~Advising the TSC staff on plant equipment repairs assessment, site materials capabilities and resource status as required.~~

~~5.6.6~~ **5.6.3 Engineering Advisor**

The Engineering Advisor is responsible for the following activities:

- 1) Ensuring adequate Engineering support is available to support emergency response based on plant conditions and events.
- 2) Evaluating the safety consequences of the occurrence and advising the Site Emergency Coordinator of appropriate response actions and onsite and offsite recommended protective measures.
- 3) Advising the Site Emergency Coordinator on technical matters relating to nuclear and radiological safety.
- 4) Coordinating plant technical support.
- 5) Advising the Site Emergency Coordinator of actions and findings of support groups.
- 6) Assisting the Site Emergency Coordinator in determining personnel deployment for emergency support assignments.
- 7) Providing operation and control of emergency data transmission systems, and reviewing and evaluating plant data.

~~5.6.7 Plant Process Computer (PPC) Operator~~

~~The PPC Operator is responsible for the following activities:~~

- ~~1) Assisting the Reactor Engineer in reading the PPC data and preparing release pathway information for dose assessment purposes.~~

~~5.6.8 Mechanical Engineer~~

~~The Mechanical Engineer is responsible for the following activities:~~

- ~~1) Performing mechanical engineering assessments, trends and recommendations.~~

5.6.9—Electrical Engineer

The Electrical Engineer is responsible for the following activities:

- 1) ~~Performing electrical engineering assessments, trends and recommendations.~~

5.6.10—Reactor Engineer

The Reactor Engineer is responsible for the following activities:

- 1) ~~Performing reactor engineering assessments, trends and recommendations.~~

5.6.115.6.4 Operations Advisor

The Operations Advisor is responsible for the following activities:

- 1) Reporting initially to the Control Room to relieve the Shift ~~Manager~~ Supervisor of plant operational oversight responsibilities.
- 2) Report to the TSC upon Command and Control being transferred from the ~~SM~~ Shift Supervisor to either the SEC or ED.
- 3) Providing general operational advice and assistance to the SEC and TSC Staff.
- 4) Coordinating maintenance activities between TSC and OSC
- 3)5) Advising the TSC staff on plant equipment repairs assessment, site materials capabilities, and resource status as required.

5.6.12—Communications Advisor

The Communications Advisor is responsible for the following activities:

- 1) ~~Overseeing TSC communications staff.~~
- 2) ~~Performing or overseeing all off-site notifications when the SEC has responsibilities for classifications, notifications and PARs.~~
- 3) ~~Maintaining continuous communications with the Control Room, transmitting and receiving technical data and procedural activities between the facilities.~~
- 4) ~~As directed by the Site Emergency Coordinator, notifying plant staff and other affected individuals and organizations of the emergency and their assignments.~~

5.6.13—OPS Communicator—CR

The OPS Communicator—CR is responsible for the following activities:

- 1) ~~Maintaining continuous communications from the Control Room with the TSC, transmitting and receiving technical data and procedural activities between the facilities~~

~~5.6.14~~5.6.5 ~~Agency~~ **ENS Communicator**

The ~~Agency~~ Emergency Notification System (ENS) Communicator is responsible for ~~the following activities:~~

- ~~1) Maintaining~~ communications with the NRC over the ~~Emergency Notification System (ENS)~~ telephone line.
- ~~2) Performing State and local notifications if EOF is not available.~~

~~5.6.15~~5.6.6 **Security Advisor**

The Security Advisor is responsible for the following activities:

- 1) Coordinating site security activities and advises the SEC on security matters.
- 2) Performing accountability in the TSC.
- 3) Coordinating evacuation or early dismissal of nonessential site personnel.
- 4) Overseeing the fitness for duty program in the TSC.

5.7 OPERATIONAL SUPPORT CENTER~~(OSC)~~

The functions of the OSC include:

- 1) Providing a location for staging trained personnel for assignment to relieve personnel and staff special emergency positions on an as-needed basis for:
 - Emergency maintenance, repair, and damage control
 - Firefighting, search and rescue, and first aid
 - Emergency sampling of plant fluids
 - A location for storage of selected emergency response equipment
 - Personnel decontamination
- 2) Providing an office for the OSC Director who determines and recommends repair/damage control and corrective actions for plant mechanical, instrumentation, and electrical systems.
- 3) Section 5.~~21-23~~ Figure 5-3, OSC Organization, illustrates the OSC organization chart. Specific OSC position functions are:

5.7.1 OSC Director

The OSC Director is responsible for the following activities:

- 1) Directing activities of OSC personnel.

- 2) Coordinating a repair plan to recover from the emergency, in cooperation with the SEC and Maintenance Operations Advisor.
- 3) Coordinating the fabrication and sets up of any special equipment necessary at the direction of the SEC and Maintenance Operations Advisor.
- 4) Coordinating the movement and accountability of maintenance teams.
- 5) Providing OSC status updates to the TSC.
- 6) Planning and coordinating resources to conduct assessment, maintenance, repair or installation of special equipment.
- 7) Providing technical advice to evaluation personnel in the TSC.
- 8) Coordinating plant access and ensuring 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.
- 9) Maintaining the capability of communicating with personnel engaged in operations, maintenance or chemistry and radiation protection emergency response activities.
- 5)10) Assisting the Control Room and TSC/OSC in communicating with response teams.

~~5.7.2 Maintenance Coordinators (Mechanical, Instrument and Control, and Electrical)~~

~~The Maintenance Coordinators are responsible for the following activities:~~

- ~~1) Planning and coordinating resources to conduct assessment, maintenance, repair or installation of special equipment.~~
- ~~2) Providing team status updates to the Team Coordinator.~~
- ~~3) Providing technical advice to evaluation personnel in the TSC.~~

~~5.7.3 Team Coordinator~~

~~The Team Coordinator is responsible for the following activities:~~

- ~~1) Coordinating plant access and ensuring 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.~~
- ~~2) Maintaining accountability of personnel dispatched from the OSC.~~
- ~~3) Maintaining the capability of communicating with personnel engaged in operations, maintenance or chemistry and radiation protection emergency response activities.~~
- ~~4) Ensuring response teams have been briefed on plant conditions prior to dispatch.~~
- ~~5) Assisting the Control Room and TSC/OSC in communicating with response teams.~~

~~5.7.4 Site Radiation Protection Coordinator~~

~~The Site Radiation Protection Coordinator is responsible for the following activities:~~

- ~~1) Providing initial communications, dispatching, and coordinating the activities of the Onsite Field Monitoring Team (FMT) until transferring these responsibilities to the FMT Communicator and FMT Coordinator in the EOF.~~
- ~~2) Providing personnel exposure monitoring and record keeping.~~
- ~~3) Directing in-plant surveys and establishing radiation and/or contamination control area boundaries.~~
- ~~4) Determining radiation protection access requirements for entry to radiologically controlled areas.~~
- ~~5) Determining when an emergency exposure authorization is required and providing justification to the SEC or ED.~~
- ~~6) Keeping the Radiological Advisor, OSC Director and Team Coordinator informed of actions and findings.~~
- ~~7) Coordinating briefing and dispatch of personnel into affected plant areas with the OSC Team Coordinator.~~

~~5.7.5 Chemistry Coordinator~~

~~The Chemistry Coordinator is responsible for the following activities:~~

- ~~1) Directing radiological and chemical analysis of in-plant samples.~~
- ~~2) Maintaining proper records and logs.~~
- ~~3) Keeping the Radiological Advisor informed of actions and findings.~~
- ~~4) Coordinating, briefing, and dispatching of personnel into the plant for sampling or analysis with the Site Radiation Protection Coordinator and Team Coordinator.~~

~~5.7.6~~ Operations Coordinator

~~The Operations Coordinator is responsible for the following activities:~~

- ~~1) Coordinating operation's response outside the Control Room.~~
- ~~2) Ensuring the Control Room is updated on status of OSC team assignments.~~

~~5.7.7~~ 5.7.2 Onsite Field Monitoring Teams (FMTs) RP Technicians

~~The onsite Field Monitoring Team is~~ RP Technicians are responsible for the following activities:

- 1) Performing radiation surveys around the plant site and obtaining appropriate samples for analysis.
- 2) Maintaining initial communications with the ~~Site RP Coordinator~~ Radiological Manager and subsequently with the FMT Coordinator for reporting of monitoring results and maintaining cognizance of the emergency situation.

~~5.7.8~~ Maintenance, RP, Chemistry and Operations Personnel

~~The following personnel provide support in planning and performing tasks in their disciplines.~~

- ~~1) Mechanical Maintenance personnel~~
- ~~2) Electrical Maintenance personnel~~
- ~~3) Technical Maintenance personnel~~
- ~~4) Radiation Protection personnel~~
- ~~5) Chemistry personnel~~
- ~~6) Operations personnel~~

5.8 EMERGENCY OPERATIONS FACILITY ~~(EOF)~~

The principal functions of the EOF are to provide for strategic planning and control. The principal functions of the EOF staff are:

- 1) Control and Coordination

The EOF utility staff, under the direction of the Emergency Director (ED), manages and coordinates all PG&E technical direction and control of the integrated emergency response effort.

When activated, the EOF determines status of notifications, provides Protective Action Recommendations (PARs) and Public Information releases under the ED's authority.

- 2) Liaison/Interface

The EOF provides management level interfaces with offsite response organizations.

The EOF staff also interfaces with the JIC staff to provide information to the public through the media.

3) Assessment

The EOF provides a centralized location, immediately available to County decision makers in the County EOC for unified dose assessments.

4) Decision-Maker Staff Support

The EOF provides a center for response organizations to make staff specialists available to provide data and recommendations to County decision makers for their use in taking protective actions relating to either dose assessment evaluations or predictions of degraded conditions.

5) Company Interface

Site emergency response activities are communicated to the Company support organization by the Government Relations Coordinator located at the EOF.

~~The General Office Technical Liaison (GOTL) coordinates with the Government Relations Coordinator to ensure alignment between DCPD and corporate response.~~

The Government Relations Coordinator is provided with communications via the Company telephone system and data links through the local area network (LAN)/wide area network (WAN).

Section 5.224 Figure 5-4, EOF Organization, illustrates the EOF organization chart. Specific EOF position functions are as follows:

5.8.1 Emergency Director

After arrival at the Emergency Operations Facility, the Emergency Director maintains overall command of PG&E emergency response operations during the Alert, Site Area Emergency, and General Emergency classifications. The Emergency Director provides direction and support for onsite emergency response actions to the Site Emergency Coordinator, and ensures coordination of DCPD emergency actions with those of government, and General Office support through the PG&E Emergency Operations Center (PG&E EOC). The Emergency Director also approves plant status updates and information for inclusion in media releases.

Emergency Director responsibilities and authorities are separated into two categories. The first category involves decision making for overall emergency response direction and protective action recommendations that may impact the general public. The second category relates to the administration and management of the utility response organization. Duties in the latter category include:

- Interface between DCPD/PG&E and Federal/State/local emergency response agencies.

- Communicate plant status updates and radiological release data to NRC/FEMA, County/State EOC, PG&E EOC, and ~~Joint Information Center (JIC)~~ personnel.
- Provide administrative, technical, and logistical support to station emergency operations.
- Ensure continuity of emergency organization resources.
- Determine when to deactivate the Emergency Response Organization.

Emergency Director responsibility and authority for overall response direction ~~and for recommending protective actions to offsite authorities~~ is initially assumed by the Site Emergency Coordinator until the Emergency Director position is assumed at the EOF by the assigned staff member.

EOF administrative and facility management functions are assumed by the EOF Director. The Emergency Director's primary responsibility is to place the EOF in an operational status capable of early field monitoring team direction and control, Emergency Assessment and Response System (EARS) operation, and plant data analysis.

- 1) The Emergency Director is responsible for implementing the following non-delegable activities and authorizations:
 - a) Providing direction for all emergency response operations performed by Company personnel.
 - b) Authorizing any recommendations of the Company regarding evacuation, or other emergency measures including PARs, to non-Company emergency support groups.
 - c) Authorizing changes in the Emergency Classification and notification of offsite authorities.
 - d) Authorizing any extraordinary emergency measures, such as the use of Company emergency personnel exposure limits.
 - e) Authorizing the ingestion of KI to offsite monitoring personnel.
- 2) The Emergency Director is responsible for ensuring the performance of the following delegable activities:
 - a) Approving information for inclusion in media releases.
 - b) Requesting assistance as necessary for onsite or offsite radiation monitoring from Federal agencies, either through the County/State Emergency Operations Center once established, or directly.
 - c) Maintaining liaison with offsite emergency response organizations providing onsite assistance and of a coordinated recovery action plan for onsite.
 - d) Modifying or re-organizing the Emergency Response Organization based upon the type of accident and specific accident emergency response needs.

- e) De-escalating the emergency classification and/or establishing a recovery organization.

5.8.2 EOF Director

The EOF Director is responsible for the following activities:

- 1) Directing the set up and staffing of the utility portion of the EOF and establishing communications.
- 2) Providing administrative and management direction of the EOF staff in support of the event response.
- 3) Keeping the Site Emergency Coordinator informed and serving as his contact at the EOF.
- 4) Coordinating access control of the EOF and UDAC portion of the building as well as the JIC with the facility security and County Sheriff's Watch Commander.

5.8.3 Radiological Manager

The Radiological Manager is responsible for the following activities:

- 1) Developing radiological data and status information for evaluation by UDAC personnel and distribution to EOF and EOC personnel.
- 2) Directing the activities of field monitoring teams and the Offsite Emergency Laboratory (OEL).
- 3) In coordination with the UDAC Coordinator, maintaining records, and providing findings in status reports.
- 4) Performing dose projections and providing radiological assessment information for the determination of PARs ~~protective Action Recommendations~~. ~~Advising the TSC of PARs (ED not in EOF command) or f~~ Formulating PARs for ED approval.
- 5) Ensuring proper exposure controls are taken for DCPD offsite emergency response personnel.
- 6) Monitoring the plant telephone bridge line.
- 7) Directing and coordinating the DCPD offsite dose assessment activities.
- 8) Coordinating the deployment of FMTs in support of dose assessment activities.
- 5)9) Coordinating assessment and communications with offsite agency personnel in the UDAC.

5.8.4 Dose Assessor

The Dose Assessor is responsible for the following activities:

- 1) Performing dose projections using dose assessment computer models or manual dose calculations.
- 2) Updating the Radiological Manager, ~~Dose Assessment Coordinator~~ and UDAC staff on the status of any plant release and of dose projection results.

5.8.5 — Dose Assessment Coordinator

~~The Dose Assessment Coordinator is responsible for the following activities:~~

- ~~1) Monitoring the plant telephone bridge line.~~
- ~~2) Directing and coordinating the DCPP offsite dose assessment activities.~~
- ~~3) Coordinating the deployment of Field Monitoring Teams in support of dose assessment activities.~~
- ~~4) Coordinating assessment and communications with offsite agency personnel in the UDAC.~~

5.8.6 5.8.5 Field Monitoring Team Coordinator

The Field Monitoring Team Coordinator is responsible for the following activities:

- 1) Dispatching and coordinating the activities of the Field Monitoring Teams (utility and County) and Offsite Emergency Lab.
- 2) Providing recommendations regarding establishing controlled access areas and determining the boundaries of such areas in cooperation with County personnel assigned to the monitoring team.
- 3) Coordinating monitoring activities for the Monitoring, Decontamination, and Reception Centers.
- 4) Establishing and maintaining communications with the FMTs.
- 3)5) Recording and reporting field monitoring survey, sample, and exposure information.

5.8.7 — Field Monitoring Team Communicator

~~The Field Monitoring Team Communicator is responsible for the following activities:~~

- ~~1) Establishing and maintaining communications with the Field Monitoring Teams.~~
- ~~2) Recording and reporting field monitoring survey, sample and exposure information.~~

5.8.8 5.8.6 Offsite Field Monitoring Teams (FMTs)

The Offsite ~~FMT~~sited Monitoring Teams are responsible for the following activities:

- 1) Performing radiation surveys and obtaining environmental samples to monitor and track any releases of radioactivity outside the Protected Area.
- 2) Maintaining communications with the FMT Coordinator to report environmental conditions and to obtain event information and instructions.
- 3) Coordinating monitoring activities and reporting of results with the County personnel assigned to the monitoring team.
- 4) Providing recommendations regarding establishing controlled access areas and determining the boundaries of such areas in cooperation with County personnel assigned to the monitoring team.
- 5) Assisting in monitoring personnel and evaluating their exposure as required.

~~5.8.9~~ HPN Communicator

~~The HPN Communicator is responsible for the following activities:~~

- ~~1) Monitoring plant and environment radiological data.~~
- ~~2) Maintaining radiological communications with the NRC on the HPN line.~~
- ~~3) Keeping the Radiological Manager informed on NRC requests and reporting activities.~~

~~5.8.10~~ Offsite Emergency Lab Analyst

~~The Offsite Emergency Lab Analyst is responsible for the following activities:~~

- ~~1) Performing environmental sample analysis to monitor and track any releases of radioactivity outside the Protected Area.~~
- ~~2) Maintaining communications with the FMT Communicator to report sample results and to obtain event information and instructions.~~
- ~~3) Performing habitability surveys and maintaining contamination controls at the Lab.~~

~~5.8.11~~ 5.8.7 Engineering Liaison

The Engineering Liaison is responsible for the following activities:

- 1) Activating and operating plant data computer systems for obtaining plant data.
- 2) Providing technical assistance to response personnel.
- 3) Notifying and updating INPO for any event of Alert or higher.
- 4) Disseminating plant status updates if automated systems fail.

~~5.8.12~~ 5.8.8 Communications Coordinator

The Communications Coordinator is responsible for the following activities:

- 1) Assisting the Emergency Director in preparing and approving notifications.
- 2) Overseeing the transmittal and distribution of notifications.
- 3) Monitoring plant and environment radiological data.
- 4) Maintaining radiological communications with the NRC on the HPN line.
- 5) Keeping the Radiological Manager informed on NRC requests and reporting activities.
- 6) Transmitting, receiving, and documenting notification information.
- 2)7) Notifying corporate offices and individuals of the event.

~~5.8.13~~ **Offsite Communicator**

~~The Offsite Communicator is responsible for the following activities:~~

- ~~1) Transmitting, receiving, and documenting notification information.~~
- ~~2) Notifying corporate offices and individuals of the event.~~

~~5.8.14~~5.8.9 **Advisor to the County**

The Advisor to the County is responsible for the following activities:

- ~~1) Assisting the EOF Director with set up of the EOF.~~
- 2)1) Acting as a technical specialist at the County EOF, informing County response staff members of plant conditions and recommended protective actions.
- 3)2) Maintaining awareness of plant conditions and emergency response activities.
- 4)3) Assisting in the interface between DCPD and County EOC personnel.

~~5.8.15~~5.8.10 **Government Relations Coordinator**

The Government Relations Coordinator is responsible for the following activities:

- 1) Monitoring actions and events from the EOF to provide information to other Government Relations Representatives and JIC personnel.
- 2) Coordinating communication between PG&E offices in Washington, D.C., Sacramento and San Francisco.
- 3) Evaluating and responding to external Company governmental issues and informing the ED of corporate status and decisions.

- 4) Communicating PG&E public information from the JIC to County EOC and EOF personnel.
- 5) Supporting the development and review of information for use in media statements.

Coordinating with JIC staff for tracking and controlling rumors at the EOF.

~~6) —~~

~~5.8.16~~ **EOF Security Support**

~~The EOF Security support is responsible for the following activities:~~

- ~~1) — Providing building access controls for the EOF/County EOC.~~

~~5.8.17~~ **UDAC Meteorologist**

~~The UDAC Meteorologist is responsible for the following activities:~~

- ~~1) — Determining current and forecast meteorological information.~~

~~5.8.18~~ **EOF Security Liaison**

~~The EOF Security Liaison is responsible for the following activities:~~

- ~~1) — Providing assistance to the TSC Security Advisor and the EOF Director as requested.~~

~~5.8.19~~ **General Office Technical Liaison**

~~The General Office Technical Liaison is responsible for the following activities:~~

- ~~1) — Providing a single point of contact between the EOF and the company emergency operations center.~~
- ~~2) — Responding to the company emergency operations center when requested or directed to do so.~~

- ~~3) 6) Coordinating with the Government Relations Coordinator to ensure alignment between DCPD and corporate response.~~

5.9 JOINT INFORMATION CENTER (JIC)

The principal function of the JIC is to provide information to the general public through the media.

Section 5.2⁵³ Figure 5-5, JIC Organization, illustrates the JIC organization chart. Specific JIC position functions are:

5.9.1 Company Spokesperson

The Company Spokesperson is responsible for the following activities:

- 1) Consulting with the Public Information Officer (PIO) and other Company officials to provide the following in an emergency:
 - a) Characterizes Company responsibility for the event.
 - b) Characterizes concern for any impacts to public.
 - c) Describes Company emergency response actions
- 2) Participating in media briefings to provide additional technical expertise and representation of the Company at the senior leadership level.
- 3) Participating in the Emergency Director video conference briefings and assisting with the development of media briefing talking points.
- 4) Working closely with Company government and public relations staff to assist with community issues related to the emergency.

5.9.2 JIC Director

The JIC Director is responsible for the following activities:

- 1) Acting as a point of contact for other facility managers and maintaining current emergency status information throughout the event.
- 2) Overseeing the functional organization of the JIC, including facility setup and staffing, fitness-for-duty of ERO personnel (including behavioral assessments), coordinating additional resources and personnel, JIC security, administrative support, parking, etc.
- 3) Participating in intra facility video conference briefings to obtain approved public information.
- 4) Coordinating the collection of information and the development of draft media releases and media briefing talking points ~~by the News Writer and Technical Advisers for approval~~ by the PIO.
- 5) Coordinating with the PIO on any changes, corrections or additions to media releases and media briefing talking points and ensuring that they are available for use in time for media briefings.
- 6) Coordinating with the Government Relations Coordinator for investigating unanswered questions posed by the media and resolving reported rumors.
- 7) Ensuring the JIC is adequately staffed at all times during an emergency.
- 8) Communicating with the Company Spokesperson while in transit for providing status of facility readiness, where to go first, key issues for the NRC, etc.

5.9.3 Public Information Officer ~~(PIO)~~

The PIO is responsible for the following activities:

- 1) Coordinating media briefings and any follow-up media interviews including plant visits.
- 2) Serving as a PG&E Spokesperson and lead monitor during media briefings.
- 3) Reviewing and approving public information prior to its release to the media and coordinating with the JIC Director for clarity.
- 4) Participating in intra facility video conference briefings to obtain approved public information.
- 5) Coordinating media briefings with the Company Spokesperson, Company officials, the SLO County ~~Public Information Officer (PIO)~~, and other participating government agencies.
- 6) Developing communications strategies, key messages and other material for the media.
- 7) Identifying Company Spokesperson(s) and other Company representatives at media briefings.
- 8) Providing regular communications to the PG&E External Communications Department regarding the status of media briefings and approved and released information, and additional staffing needs.
- 9) Collecting facts and developing media briefing talking points and media releases, as directed using approved information from video conferences, Emergency Notification Forms and tailboard forms.
- 10) Attending pre-briefings conducted with the SLO County PIO to review the agenda, logistics and key messages used during each media briefing.
- 8)11) Review and assess media coverage and NRC Event Reports.

5.9.4 — Assistant PIO

~~The Assistant PIO is responsible for the following activities:~~

- ~~1) Under direction of the PIO, serving as a PG&E spokesperson.~~
- ~~2) Providing communications to PG&E External Communications Department.~~
- ~~3) Coordinating with the PIO and News Writer to ensure timely and accurate information is released to the public.~~
- ~~4) Attending pre-briefings conducted with the SLO County PIO to review the agenda, logistics and key messages used during each media briefing.~~
- ~~5) Coordinating the development of media releases with the News Writer.~~

- ~~6) Assisting the PIO in coordinating media briefings and any other media interviews including plant visits.~~
- ~~7) Advising the PIO of rumors as reported by the media or the News Media Liaisons.~~
- ~~8) Helping to develop key messages for use with the media and ensuring formality and consistency of Company presentations during media briefings.~~

5.9.5 — Technical Advisor — Health Physics

~~The Technical Advisor — HP is responsible for the following activities:~~

- ~~1) Assisting the News Writer in verifying and writing of approved media briefing talking points and media releases.~~
- ~~2) Coordinating with the EOF and JIC staff for maintaining current status of projected dose, radiological plant conditions, and field monitoring.~~
- ~~3) Analyzing radiological data for the JIC personnel.~~
- ~~4) Describing radiological conditions in layperson's terms during media briefings.~~

5.9.6 — Technical Advisor — Operations

~~The Technical Advisor — OPS is responsible for the following activities:~~

- ~~1) Assisting the News Writer in verifying and writing of approved media briefing talking points and media releases.~~
- ~~2) Providing technical assistance to assure that approved information is accurately described in general and understandable terms for the media briefing talking points and media briefings.~~
- ~~3) Observing the Emergency Director video conference briefings and interpreting technical information for the PIO, Assistant PIO, and the News Writer.~~
- ~~4) Maintaining current information on plant conditions and providing updates to the JIC Director, PIO, and the Company Spokesperson.~~
- ~~5) Reviewing NRC Event Reports for information on event and reports discrepancies to the PIO.~~
- ~~6) Assisting JIC staff to ensure technically correct information is released.~~
- ~~7) Presenting plant information to the media as directed by the PIO.~~

5.9.7 — News Media Liaison — Site

~~The News Media Liaison — Site is responsible for the following activities:~~

- ~~1) Operating the computer and display system used to project graphics and other information during media briefings.~~

- ~~2) Assuming the "News Media Liaison – Corporate" responsibilities on an interim basis until relieved by Company news personnel.~~
- ~~3) Recording any unanswered questions by the Company Spokesperson or PIO during media briefings.~~
- ~~4) Distributing approved media documents.~~

5.9.8 — News Media Liaison – Corporate

~~The News Media Liaison – Corporate is responsible for the following activities:~~

- ~~1) Coordinating with media personnel arriving at the JIC and providing approved background information and facility orientation.~~
- ~~2) Acting as an interface for the External Communications Department for the media in between briefings.~~
- ~~3) Recording any unanswered questions by the Company Spokesperson or PIO during media briefings.~~
- ~~4) Advising the PIO of relevant information obtained from the media.~~
- ~~5) Distributing approved media documents.~~

5.9.9 — News Writer

~~The News Writer is responsible for the following activities:~~

- ~~1) Collecting facts and developing media briefing talking points and media releases, as directed using approved information from video conferences, Emergency Notification Forms and tailboard forms.~~

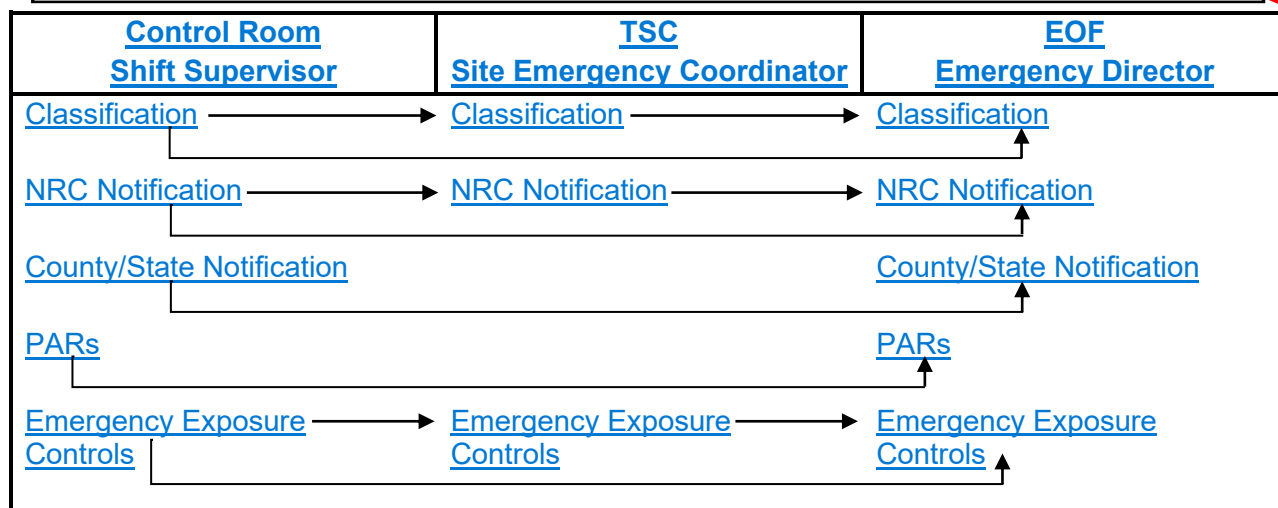
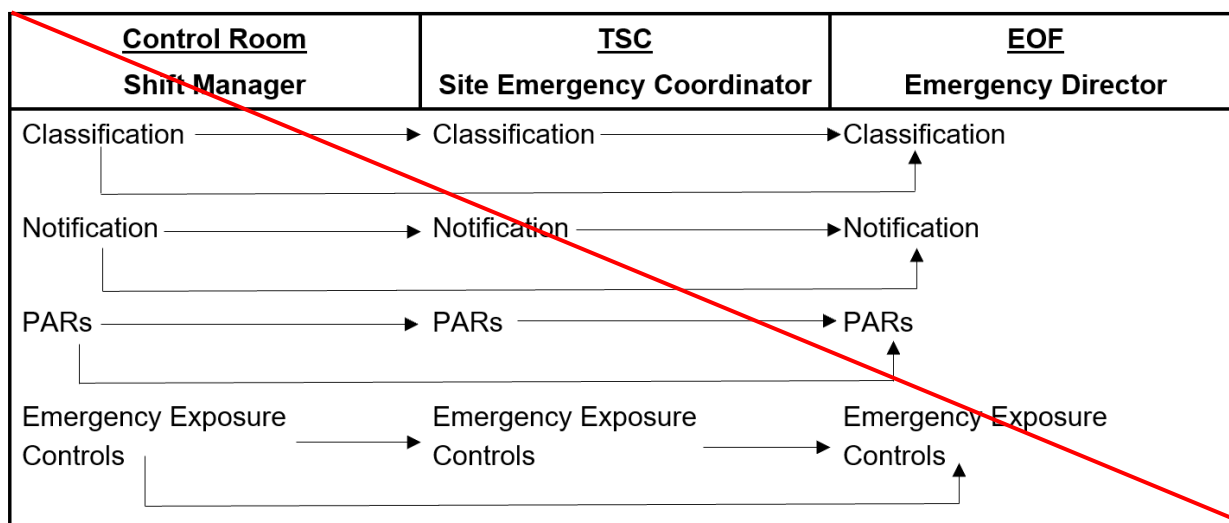
5.9.10 — JIC Security

~~The JIC Security is responsible for the following activities:~~

- ~~1) Providing access control for JIC areas.~~

5.10 TRANSFER OF COMMAND AND CONTROL

The Command and Control functions of Classification, [NRC](#) Notification, ~~PARs~~, and Emergency Exposure Controls may be transferred directly to the TSC or EOF depending on which facility is activated first. If the TSC is activated before the EOF, [the Classification, NRC Notification, and Emergency Exposure Controls](#) command and control functions will be transferred from the TSC to the EOF upon activation of that facility. [The Command and Control functions of County/State Notification and PARs transfer only directly to the EOF.](#) Below is a diagram depicting the transfer process.

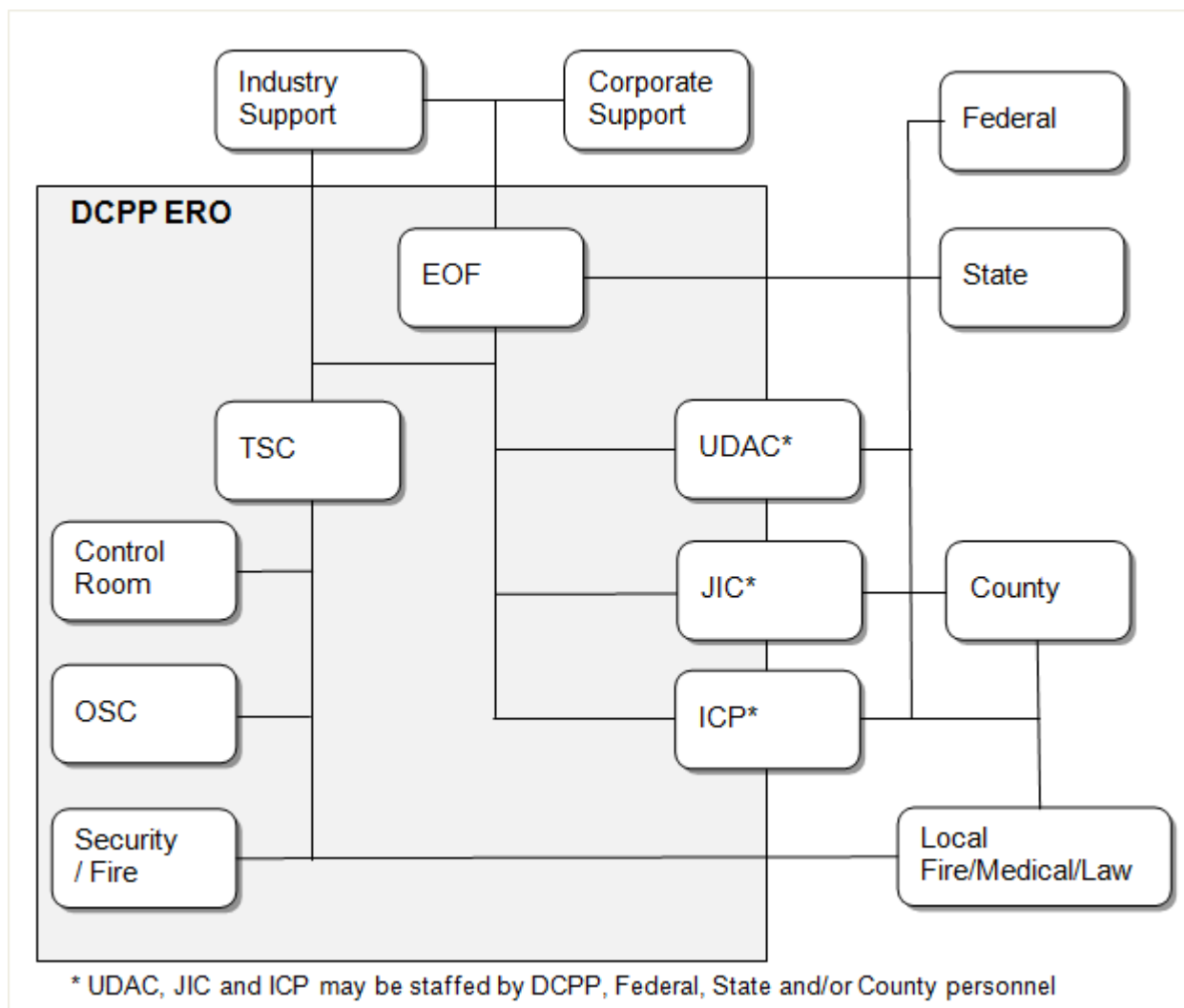


5.11 FACILITY FUNCTIONAL RELATIONSHIPS

The representation of the integrated relationships between government response organizations and the licensee is shown in Figure 1 below.

The individual in charge at each center is responsible for center communications, recording important events, decisions, and actions, and assuring resource continuity (technical, administrative, and material).

FIGURE 1



5.12 COMPANY SUPPORT

Company support capabilities include public information, procurement of materials, contract services, construction services, and meteorology. These capabilities, for the most part, are located at PG&E's General Office Complex in San Francisco. In the event of a general or company-wide emergency, [PG&E's Emergency Operations Center \(PG&E EOC\)](#) is staffed either in San Francisco or at an alternate site in Vacaville. Due to the physical distance between the PG&E EOC and [DCPP Diablo Canyon Power Plant](#), an extensive communications system is used to notify PG&E EOC personnel, exchange status information, and coordinate support requests. The primary PG&E EOC role will be to assist the with overall recovery effort, particularly those activities which are conducted offsite.

To maintain preparedness of the PG&E EOC and Incident Command System (ICS) management structure, and comply with California Public Utility Commission requirements, the Company Emergency Plan makes provisions for conducting periodic drills and exercises of simulated emergency conditions.

In an emergency classification level of Alert or higher the Emergency Director will take command and control of the event at the EOF and will direct all emergency response activities. The Emergency Director will work with the Site Emergency Coordinator, the PG&E EOC and local, State, and Federal officials, to develop a comprehensive response for the specific emergency situation. The Emergency Director will communicate with the Chief Nuclear Officer ([CNO](#)) and Nuclear Liaison in the PG&E EOC to arrange for the necessary Company resources to support the short-and/or long-term emergency response effort.

5.12.1 PG&E EOC Organization

The PG&E EOC is structured following the National Incident Management System (NIMS) [Incident Command System \(ICS\)](#) modified to address PG&E's unique operating requirements. All Company organizations with a role in emergency response are represented in the PG&E EOC, including a Nuclear Liaison. The Nuclear Liaison is the primary point of contact for technical information between the EOF and PG&E EOC.

5.12.2 Notification of Company Departments

It is Company policy that selected departments be routinely informed of plant activities and/or notified of unusual events. Nuclear generation is routinely informed of overall plant operations and promptly notified of all emergencies.

The Chief Nuclear Officer is the primary individual in charge of Company support activities. If the [Chief Nuclear Officer](#) [CNO](#) cannot be contacted directly by the plant staff via Company or commercial telephone systems, notification will be through the use of a paging system. The Company support organization is also immediately notified of any occurrence that influences the plant's load carrying capability.

Company support activities are directed by the Emergency Director through the Government Relations Coordinator located at the EOF.

The Government Relations Coordinator is provided with communications via the Company telephone system and data links through the [local area network \(LAN\)/wide area network \(WAN\)](#).

5.13 NON-COMPANY ORGANIZATIONS SUPPORT

Other organizations involved in emergency response include government agency organizations at the Federal, State, and local levels and commercial enterprises. Various non-Company groups have written agreements outlining their emergency response commitments. When an exchange of information, response action or concept of operation is governed by a regulation, law, or executive order, the commitments are documented by either signature papers within the body of the planning documents or by written agreements. This commitment will outline specific work to be performed or be an agreement to respond to an emergency. These agreements are maintained and verified yearly.

5.13.1 Local Services Support

Additional support from regional and local services has been contracted to further enhance PG&E's capability to handle all types of onsite emergencies. These services include medical, hospital, ambulance and firefighting support. These services provide immediate 24-hour-a-day, on-call support.

Emergency notifications and communications with these support organizations are via the San Luis Obispo County Dispatch Center.

5.13.2 Letters of Agreement

Letters of Agreement for services are maintained and reviewed annually with the organizations listed below.

- 1) Cambria Community Healthcare District
- 2) CALFIRE / San Luis Obispo County Fire Dept.
- 3) Department of California Highway Patrol
- 4) DOE Oak Ridge Operations Office
- 5) French Hospital Medical Center
- 6) INPO Nuclear Power Plant Agreement
- 7) Marian Regional Medical Center
- 8) PG&E Company Helicopter Operations Department
- 9) San Luis Ambulance Service, Inc.
- 10) United States Coast Guard

5.13.3 Medical Consultants

[DCPPDiablo Canyon](#) has agreements with local hospitals for handling accidents involving radioactive contamination. The Radiation Emergency Assistance Center/Training Site (REAC/TS) is also available for consultation and response to radiation related injuries. This support is discussed in Section 6.

5.13.4 Hospitals

French Hospital in San Luis Obispo will handle cases of both radiological and non-radiological injuries occurring at [DCPPDiablo Canyon Power Plant](#).

The Company also has an agreement with Marian Medical Center in Santa Maria to handle injured persons who may be contaminated with radioactive materials.

5.13.5 Ambulance Service

Arrangements have been made with ambulance services in San Luis Obispo County to handle cases of personnel injury at [DCPPDiablo Canyon](#), including those involving radioactive contamination.

5.13.6 Firefighting Support

CALFIRE/San Luis Obispo County Fire Department will be called to assist with a fire in the plant or a fire in the surrounding grasslands. Designated members of the CALFIRE/SLO County Fire Department are trained in radiation protection practices. DCP provides trained personnel to monitor potential radiation exposures to offsite fire agency personnel. The CALFIRE/SLO County Fire Department is a participating agency in the San Luis Obispo County/Cities "Nuclear Power Plant Emergency Response Plan." The California Firefighting mutual aid agreement provides the memorandum of understanding for firefighting support through the State.

5.13.7 Air Transportation

Various air transportation services are available to the Company under emergency response conditions. Arrangements with commercial enterprises are discussed in Section 7.

5.14 NON-COMPANY INDUSTRIAL SUPPORT ORGANIZATION

5.14.1 Notification

Plant implementing procedures make provisions for early notification and information transfer to these various support organizations. The list of designated persons and emergency phone numbers are used by the plant emergency response staff to make early contact to place these organizations on alert status. This listing would include primary manufacturing suppliers, other regional nuclear utilities, and specialty nuclear utility response organizations.

The principal response organizations in the non-Company industrial organization category include:

- 1) Westinghouse Electric Corporation, Pittsburgh, Pa.

The DCCP Nuclear Steam Supply Systems were supplied by Westinghouse. In its capacity as a supplier, Westinghouse can lend emergency assistance to the Company on an around-the-clock basis.

The Westinghouse Electric Company Emergency Response Plan:

- a) Defines the Westinghouse emergency response organization, role, scope, functions and responsibilities, and how it is activated.
 - b) Identifies key Westinghouse personnel available in the early phases of an emergency response.
 - c) Defines the primary Westinghouse interfaces with involved parties.
 - d) Defines the Westinghouse role in emergency news communications and their interrelationship with the Company and news media.
- 2) United States Nuclear Industry Event Response Framework

The United States Nuclear Industry Event Response Framework is a coordinating guide for the industry support organizations. The Framework is used by the industry support organizations for the purpose of coordinating response to an event that affects the nuclear industry. The Framework outlines each agencies roles regarding, response, technical data assessment, logistics, and operating experience that they will provide.

The industry support organizations within the Framework are:

- Nuclear Energy Institute (NEI)
- Institute of Nuclear Power Operations (INPO)
- Electric Power Research Institute (EPRI)

5.15 COORDINATION WITH PARTICIPATING SAN LUIS OBISPO COUNTY AGENCIES

San Luis Obispo County authorities are assigned the lead role in coordinating offsite emergency activities. The County has prepared a plan specifically applicable to DCCP: "San Luis Obispo County/Cities Nuclear Power Plant Emergency Response Plan."

The San Luis Obispo County/Cities Plan will be activated upon notification by PG&E of an event at the Alert or higher Emergency Classification level, or by an independent remote alarm indication located in the State Warning Center in Sacramento staffed 24 hours a day by the California Office of Emergency Services (CA OES). Initial PG&E notification will be received by the County Sheriff's Department Watch Commander from the plant Control Room via dedicated phone line, commercial phone, or radio.

Upon notice of a potential accident, PG&E will immediately transmit to the County all of the information required for initial assessment including protective measures recommended at that time. The response taken will be in accordance with the joint County/PG&E Emergency Classification system ensuring there are no misunderstandings of event severity.

The County Emergency Response Organization has overall responsibility for authorization and coordination of offsite emergency response activities, including:

- 1) Coordination with ~~California Office of Emergency Services (CA OES)~~ and other participating State and local agencies.
- 2) Determining the appropriate response and implementing appropriate protective actions for the general public.
- 3) Monitoring offsite locations and controlling access to problem areas. The Company will assist with offsite environmental monitoring as well as provide monitoring for evacuated populations and offsite emergency workers.
- 4) Arranging for medical treatment, health, and sanitation services for the general public. Procuring and distributing stable iodine thyroid blocking tablets for institutional populations as well as emergency workers. Initial stocks of KI for Emergency Workers are provided by PG&E.
- 5) Public information releases regarding offsite response and protective measures to be taken. (The Company is responsible for media releases concerning onsite events and protective measures. Media releases pertaining to onsite conditions will be coordinated with County public information personnel.)

Since the Sheriff's Department Watch Commander is staffed 24-hours-a-day the Control Room or TSC will make initial notification to the Sheriff's Department. The Sheriff's Department, in turn, will notify selected members of the County Emergency Response Organization. Since both the County EOC and the PG&E EOF are co-located, communication channels will remain open from plant site to this offsite location during County participation.

~~Initially, the Site Emergency Coordinator, or, once he arrives at the EOF, the~~ The Emergency Director will:

- Keep the County informed of meteorological conditions, results from pertinent surveys by Company personnel, and conditions at the plant. An Advisor to the County, a Company representative, will be assigned to the County Emergency Operations Center to assist in interpretation of technical information received from DCP.
- Recommend appropriate protective actions to the County.

The Site Emergency Coordinator and the Emergency Director will be in communication with the technical personnel from the various Federal and State agencies to formulate a coordinated plan of action.

County facilities are used for centralized public information dissemination. A local Company public information specialist will serve as a spokesperson for the onsite and offsite activities of the Company.

Initial media releases and statements will be coordinated by the County Public Information Manager (PIM) in the EOC and the PG&E Public Information Officer (PIO). Contact and briefings with media personnel will be held at the Emergency Response Joint Information Center off Highway 1 (near the EOF). Media briefings may be held at the JIC at the ALERT or higher level classification. Media briefings may also take place at the Company EOC.

The Emergency Director, through the PIO ~~and the Assistant PIO~~ will establish a schedule and format for updates to the Company Spokesperson, San Luis Obispo County and other agencies at the County EOC. The County will promulgate jointly agreed upon position statements.

Rumor control is under the jurisdiction of the County organization. Centralized and authenticated information provides the Joint Information Center with a consistent, reliable source of information.

5.16 COORDINATION WITH PARTICIPATING STATE OF CALIFORNIA AGENCIES

The ~~California Office of Emergency Services (CA OES)~~ will be notified under the same circumstances as the County. CA OES provides assistance as outlined in the State of California "Nuclear Power Plant Emergency Response Plan." CA OES and the California Department of Public Health (CDPH) are the primary State response agencies for nuclear power plant accidents. Summaries of their responsibilities under terms of the State Plan are given below.

5.16.1 California Office of Emergency Services ~~(CA OES)~~

CA OES has executive authority for the coordination of State resources and the responsibility of general planning. CA OES will:

- Alert State agencies, Federal organizations (other than NRC), volunteer organizations, and adjacent Counties and States.
- Coordinate State radiological monitoring of areas, personnel, and equipment to support local County authority.
- Assess radiological situations.
- Operate the California State Warning Center (SWC), the State 24-hour communication network.
- Establish liaison with utility representatives.
- Coordinate all requests for Federal assistance.
- Prepare and coordinate public information and media releases with local, State, and Federal agencies and the Company.
- Coordinate State mutual aid.
- Update and maintain the State of California Nuclear Power Plant Emergency Response Plan.
- Coordinate, review, and approve emergency plans by other State agencies and some local jurisdictions.
- Assist the utility, local and State response agencies in development, conduct and coordination of offsite training programs. Evaluate offsite training programs developed by other agencies.
- Assist in the development, conduct, and coordination of offsite drills and periodic exercises. Evaluate and critique the drills and exercises. Recommend improvements in plans, procedures, and training programs.

5.16.2 California Department of Public Health-(CDPH)

CDPH assists CA OES in maintaining an adequate state of emergency preparedness and provides technical and advisory support. As specified in the State Plan, CDPH will:

- Assist in monitoring the environment, personnel, and equipment in support of local authority.
- Establish and direct measures to mitigate radiological impact on public health. Coordinate with Department of Agriculture and local Agricultural Commission to prevent consumption of unacceptably contaminated food and fodder.
- Establish human exposure criteria; assess public impact of radiation levels. Maintain data on population dosimetry.
- Establish maximum contamination levels for controlled areas. Direct and assist local jurisdictions in defining contaminated areas. Establish measures to limit the spread of contamination.
- Identify laboratories capable of providing radiological support, including assay of ingestion pathway samples.
- Establish levels and guidance for protective action for the ingestion pathway.
- Direct and assist in collection of, and provide for laboratory analysis of, food and fodder samples taken by State and local authority.
- Establish policies and procedures for potential use of prophylactic substances to prevent or reduce the biological effects of radiation.
- Establish radiological safety criteria for recovery and re-occupancy of controlled areas.

5.17 COORDINATION WITH PARTICIPATING FEDERAL GOVERNMENT AGENCIES

The National Response Framework (NRF) integrates Federal domestic prevention, preparedness, response, and recovery plans into a single all-discipline, all-hazards plan. The NRF consists of a "base plan" plus multiple subject-specific annexes that expand on, and further delineate, interagency roles, responsibilities and activities in response to particular incidents.

5.17.1 Nuclear Regulatory Commission-(NRC)

The NRC responds to incidents under its own statutory authorities and responsibilities in accordance with the NRF and, if applicable, as an integral part of the overall response by the Federal Government. Under the NRF's Nuclear/Radiological Incident (NRI) Annex, the NRC is the Federal "Coordinating Agency" that owns, has custody of, authorizes, regulates, or is otherwise deemed responsible for incidents involving facilities and/or materials licensed by the NRC. Accordingly, the NRC performs the specified Federal-level response functions, as appropriate and consistent with the agency's authorities and responsibilities.

For incidents below the threshold of an Incident of National Significance, the NRC, as the Coordinating Agency, performs the Federal-level functions and coordinates the overall Federal response as provided in the NRI Annex. The designated "cooperating agencies" (e.g., Department of Energy, Environmental Protection Agency, Department of Agriculture) provide assistance and support to the NRC. For Incidents of National Significance, the Department of Homeland Security (DHS) is responsible for the overall coordination of Federal response activities and the NRC, as Coordinating Agency, performs the annex-specified Federal-level functions in concert with DHS.

5.17.2 Federal Emergency Management Agency ~~(FEMA)~~

FEMA serves as the NRI "annex coordinator" of Federal resources and coordinates the assistance to affected State, local and tribal governments under the Stafford Act or Federal-to-Federal support provision of the NRF.

5.17.3 Department of Energy ~~(DOE)~~

Under the NRF NRI Annex, the [Department of Energy \(DOE\)](#) will dispatch radiological assistance teams to aid in monitoring and provide technical guidance. These teams are advisory and will not assume control from local authorities. Teams can be dispatched from Oakland, Livermore, Los Angeles, San Diego, and Las Vegas. Normally the CA OES will be the primary contact for requesting DOE assistance.

Response resources available from the DOE regional offices include:

- Federal Radiological Monitoring & Assessment Center (FRMAC)
- Radiological Assistance Program Teams (RAP)
- Atmospheric Release Advisory Capability (ARAC)
- Joint Nuclear Accident Coordination Center
- Nuclear Emergency Search Team (NEST)

Although these resources could originate from Lawrence Livermore Laboratory ~~(LLL)~~ near Livermore, California, the DOE aircraft and helicopters providing transportation support would originate from the DOE Las Vegas, Nevada facilities. Transit time for team response, once alerted, would be approximately six hours.

5.17.4 Coast Guard

The ~~USCG-S. Coast Guard~~ may be requested to assist in emergency actions involving vessels and persons, off-shore and adjacent to the plant. The Coast Guard has one or more vessels based at Morro Bay, approximately eight miles north of the plant. Upon notification, the Coast Guard will notify and attempt to remove persons and vessels from affected coastal waters. They will prevent vessels from entering affected areas and vessels suspected of being radioactively contaminated until they can be surveyed. The Coast Guard maintains "U.S. Coast Guard Procedures to be followed upon Notification of an Emergency at Diablo Canyon Power Plant."

The San Luis Obispo County/Cities Emergency Response Plan provides that the Sheriff's Watch Commander will make notifications to the [United States Coast Guard \(USCG\)](#). If the situation at the plant requires immediate protective actions on the part of the general public and the County Emergency Operations Center has not had time to be activated, the plant will notify the USCG to place them on standby or make recommendations for protective actions as appropriate.

5.17.5 Environmental Protection Agency ~~(EPA)~~

EPA, through its Nuclear Radiation Assessment Division and its Office of Radiation Programs in Las Vegas, can provide trained health physics personnel, field sampling equipment and laboratory facilities for assessment and monitoring during an emergency. EPA provides radiological monitoring support for DOE in initial stages of an emergency and assumes the lead responsibility in the intermediate to long-term recovery period.

5.18 CROSS REFERENCE TO NUREG-0654

NUREG 0654	DCPP Emergency Plan	NUREG 0654	DCPP Emergency Plan
A.1.a	5.11, 5.12, 5.13, 5.14, 5.15, 5.16	F.1.a	5.6, 5.14
A.1.b	5.11, 5.12, 5.13, 5.14, 5.15, 5.16	F.1.b	5.3, 5.14
A.1.c	5.10	F.1.c	5.6, 5.8
A.1.d	5.3.2, 5.6.1, 5.8.1	F.1.d	5.6,
A.1.e	5.4.1, 5.12.1, 5.14, 5.15.1	F.1.e	5.3, 5.14
A.3	5.12, 5.12.2, 5.14, 5.15, 5.16	G.3.a	5.6, 5.8, 5.9
A.4	5.4.1, 5.6.12, 5.8.1, 5.9.2,	G.3.b	5.9, 5.14
B.1	5.1.3, 5.18	G.4.a	5.9
B.2	5.3.2	G.4.b	5.9
B.3	5.3.2, 5.6.1	G.4.c	5.9, 5.14
B.4	5.3.2, 5.6.1, 5.8.1	H.1	5.6, 5.7
B.5	5.3, 5.6, 5.7, 5.8, 5.9, 5.18	H.2	5.8
B.6	5.10, 5.19, 5.20, 5.21, 5.22, 5.23	I.8	5.6, 5.8
B.7.a-d	5, 5.1.1, 5.9.8, 5.11, 5.3.3, 5.6, 5.6.1, 5.8.1, 5.8, 5.8.158, 5.9.2, 5.9.1, 5.9.3,	K.2	5.3, 5.6, 5.7, 5.8
B.8	5.13	L.1	5.3, 5.12
B.9	5.1.1, 5.12, 5.14	L.4	5.3
C.1.a-c	5.14, 5.16, 5.6.1, 5.8.1, 5.11,	P.3	5.1.1
C.2.b	5.8	P.6	5.11, 5.12, 5.13
C.4	5.8, 5.12	P.7	5.17
E.4.a to n	5.14		

5.19 TABLE 5-1, DCPD ON-SHIFT AND AUGMENTED ERO

Functional Area	Major Tasks	Emergency Positions	Shift Staffing	60 Minutes	90 Minutes
1. Plant Operations and Assessment of Operational Aspects	Control Room Staff	Unit Shift Supervisor (SRO)	2	----	----
		Operations Advisor (CR/TSC)	----	1	----
		Control Room Operator (RO)	4	----	----
		Non-Licensed Operator (NO)	5	----	----
2. Emergency Direction and Control	Classification	Shift Manager	1	----	----
		Site Emergency Coordinator (TSC)	----	----	1
		Emergency Director (EOF)	----	----	1
3. Notification & Communication	Licensee, Local/State Federal	Shift Phone Talker (SRO/RO/NO)	1	----	----
		Shift Phone Talker (SRO/RO)	1	----	----
		Agency/ENS Communicator (TSC)	----	----	1
		Communications Advisor (TSC)	----	----	1
		Communications Coordinator (EOF)	----	----	1
4. Radiological Assessment	Dose Assessment	Offsite Communicator (EOF)	----	----	1
		WC Shift Foreman (SRO)	1*	----	----
		Rad Data Processor (TSC)	----	----	1
		Radiological Manager (EOF)	----	----	1
	Offsite Surveys	Dose Assessor (EOF)	----	----	1
		FMT Leader (RP Technicians)	----	----	2
	On-Site(out-of-plant) Surveys	FMT Driver	----	----	2
		Team Leader (RP Technician)	----	1	----
5. Plant System Engineering, Repair, and Corrective Actions	Technical Support	Team Driver	----	1	----
		RP Technician	2	2	2
	Repair and Corrective Actions	WC Shift Foreman (SRO) / STA	1	----	----
		Reactor Engineer (TSC)	----	----	1
		Electrical Engineer (TSC)	----	1	----
		Mechanical Engineer (TSC)	----	1	----
		Mech. Maintenance Coordinator (OSC)	----	1	----
		Elec. Maintenance Coordinator (OSC)	----	1	----
6. In-Plant PAs	Radiation Protection	I&C Maintenance Coordinator (OSC)	----	----	1
		OSC Director (OSC)	----	----	1
7. Firefighting	--	Site RP Coordinator (OSC)	----	1	----
8. 1 st Aid and Rescue Ops	--	RP Technician	2*	1	1
9. Site Access Control and Accountability	Security & Accountability	Fire Department	5	Local Support	Local Support
		Industrial Fire Officers	2*	Local Support	Local Support
		Security Personnel	Per Security Plan	Local Support	Local Support
TOTAL:			22	11	19

*May be performed by someone filling another position having functional qualifications

<u>Functional Area</u>	<u>Major Tasks</u>	<u>Emergency Positions</u>	<u>Shift Staffing</u>	<u>60 Minutes</u>	<u>90 Minutes</u>
<u>1. Plant Operations and Assessment of Operational Aspects</u>	<u>Control Room Staff</u>	<u>Shift Supervisor (qualified as CFH)</u>	1	---	---
		<u>CFH</u>	1	---	---
		<u>NCO</u>	3	---	---
		<u>Operations Advisor (CR/TSC)</u>	---	1	---
<u>2. Emergency Direction and Control</u>	<u>Command and Control</u>	<u>Shift Supervisor</u>	1*	---	---
		<u>Site Emergency Coordinator (TSC)</u>	---	---	1
		<u>Emergency Director (EOF)</u>	---	---	1
		<u>EOF Director (EOF)</u>	---	---	1
<u>3. Notification and Communication</u>	<u>Licensee, Local/State, Federal</u>	<u>CFH/NCO</u>	1*	---	---
		<u>ENS Communicator (TSC)</u>	---	---	1
		<u>Communications Coordinator (EOF)</u>	---	---	1
		<u>Engineering Liaison (EOF)</u>	---	---	1
		<u>Government Relations Coord. (EOF)</u>	---	---	1
		<u>Advisor to the County (EOF)</u>	---	---	1
<u>4. Radiological Assessment</u>	<u>Dose Assessment</u>	<u>CFH/RP Technician</u>	1*	---	---
		<u>Radiological Manager (EOF)</u>	---	---	1
		<u>Dose Assessor (EOF)</u>	---	---	1
	<u>Offsite Surveys</u>	<u>FMT Coordinator (EOF)</u>	---	---	1
		<u>FMT Leader (RP Technician) (EOF)</u>	---	---	2
		<u>FMT Driver (EOF)</u>	---	---	2
	<u>Onsite (out-of-plant) Surveys</u>	<u>RP Technician (OSC)</u>	---	1*	---
	<u>In-plant Surveys</u>	<u>RP Technician (OSC)</u>	2	1	---
<u>5. Plant System Engineering, Repair, and Corrective Actions</u>	<u>Technical Support</u>	<u>Radiological Advisor (TSC)</u>	---	---	1
		<u>CFH</u>	1*	---	---
		<u>Engineering Advisor (TSC)</u>	---	---	1
		<u>Operations Advisor (CR/TSC)</u>	---	1*	---
	<u>Repair and Corrective Actions</u>	<u>Radiological Advisor (TSC)</u>	---	---	1*
		<u>OSC Director (OSC)</u>	---	---	1
<u>6. In-Plant Protective Actions</u>	<u>Radiation Protection</u>	<u>RP Technicians (OSC)</u>	2*	1	---
<u>7. Firefighting</u>	---	<u>Fire Department</u>	5	<u>Local Support</u>	<u>Local Support</u>
<u>8. First Aid and Rescue Operations</u>	---	<u>Industrial Fire Officers</u>	2*	<u>Local Support</u>	<u>Local Support</u>
<u>9. Site Access Control and Personnel Accountability</u>	<u>Security and Accountability</u>	<u>Security Personnel</u>	<u>Per Security Plan</u>	<u>Local Support</u>	<u>Local Support</u>
TOTAL:			12	3	18

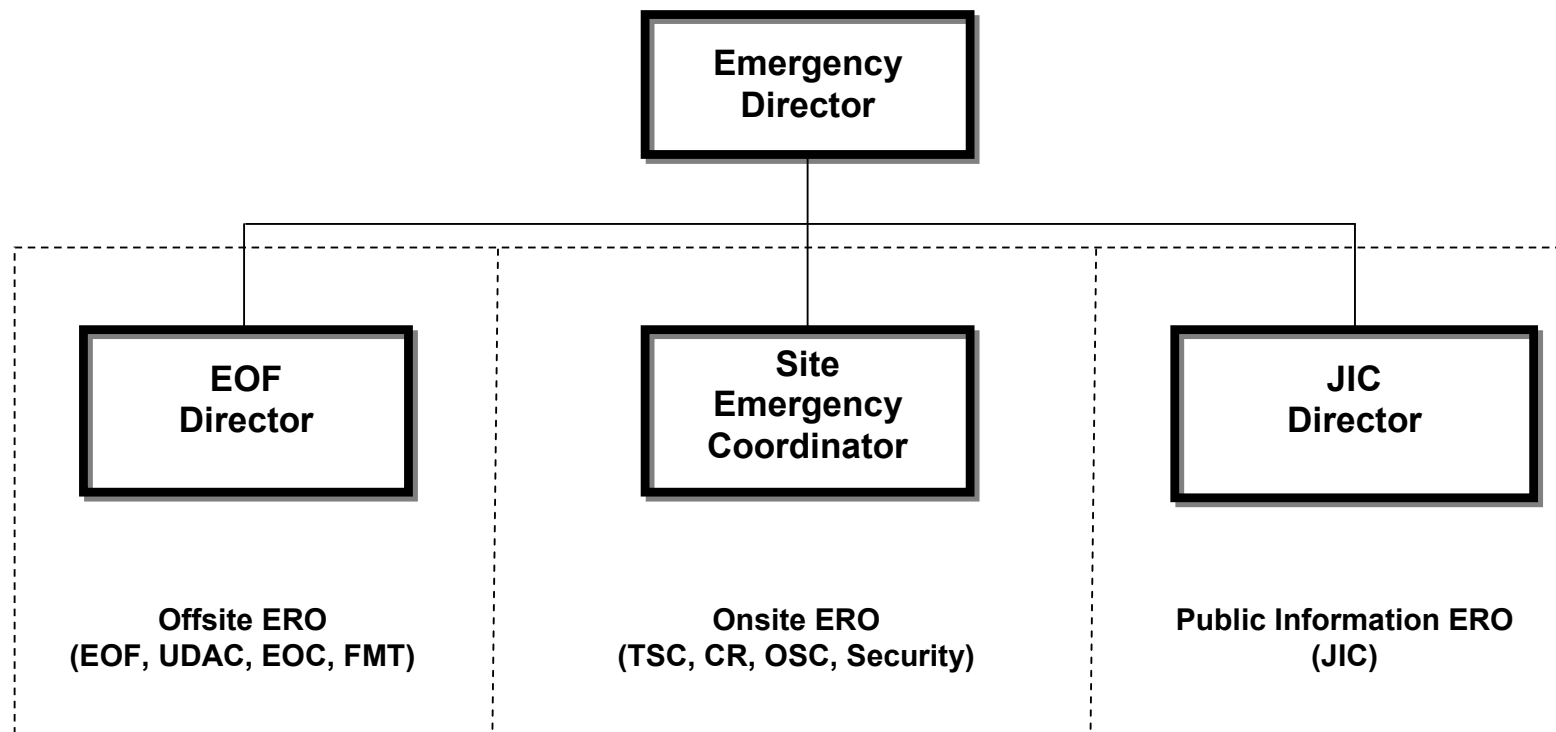
* May be performed by someone filling another position having functional qualifications.

5.20 TABLE 5-2, AUGMENTED ERO MINIMUM STAFFING FOR FACILITY ACTIVATION

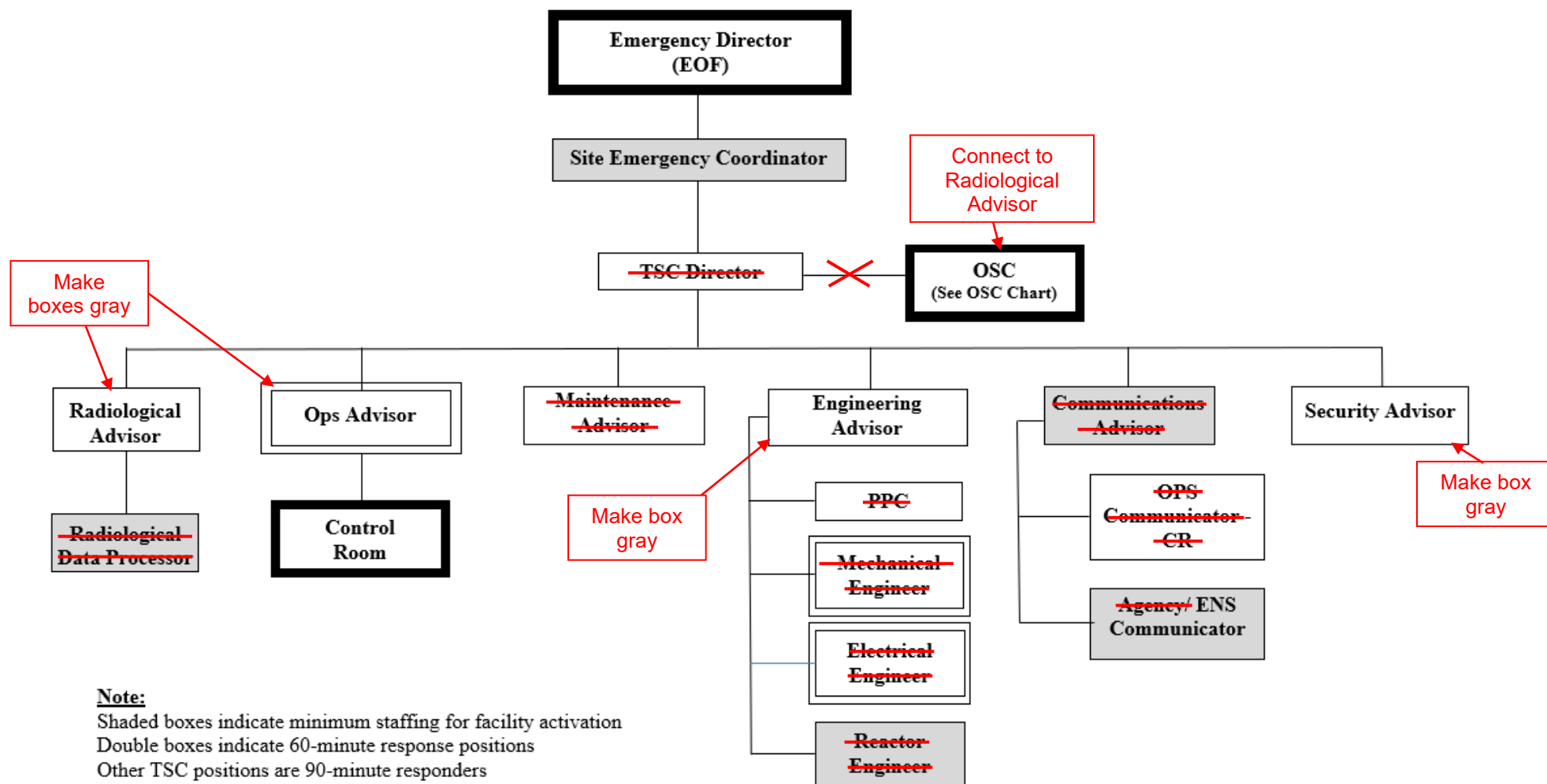
Emergency Response Facility	Minimum Staff
TSC	Site Emergency Coordinator Agency/ENS Communicator Communications Advisor Rad Data Processor Reactor Engineer
OSC	OSC Director
EOF	Emergency Director Communications Coordinator Offsite Communicator Radiological Manager Dose Assessor
JIC	None

<u>Emergency Response Facility</u>	<u>Minimum Staff</u>
<u>TSC</u>	<u>Site Emergency Coordinator</u> <u>Radiological Advisor</u> <u>Engineering Advisor</u> <u>Operations Advisor</u> <u>ENS Communicator</u> <u>Security Advisor</u>
<u>OSC</u>	<u>OSC Director</u> <u>RP Technicians</u>
<u>EOF</u>	<u>Emergency Director</u> <u>EOF Director</u> <u>Radiological Manager</u> <u>Dose Assessor</u> <u>FMT Coordinator</u> <u>Offsite FMT</u> <u>Engineering Liaison</u> <u>Communications Coordinator</u> <u>Advisor to the County</u> <u>Government Relations Coordinator</u>
<u>JIC</u>	<u>None</u>

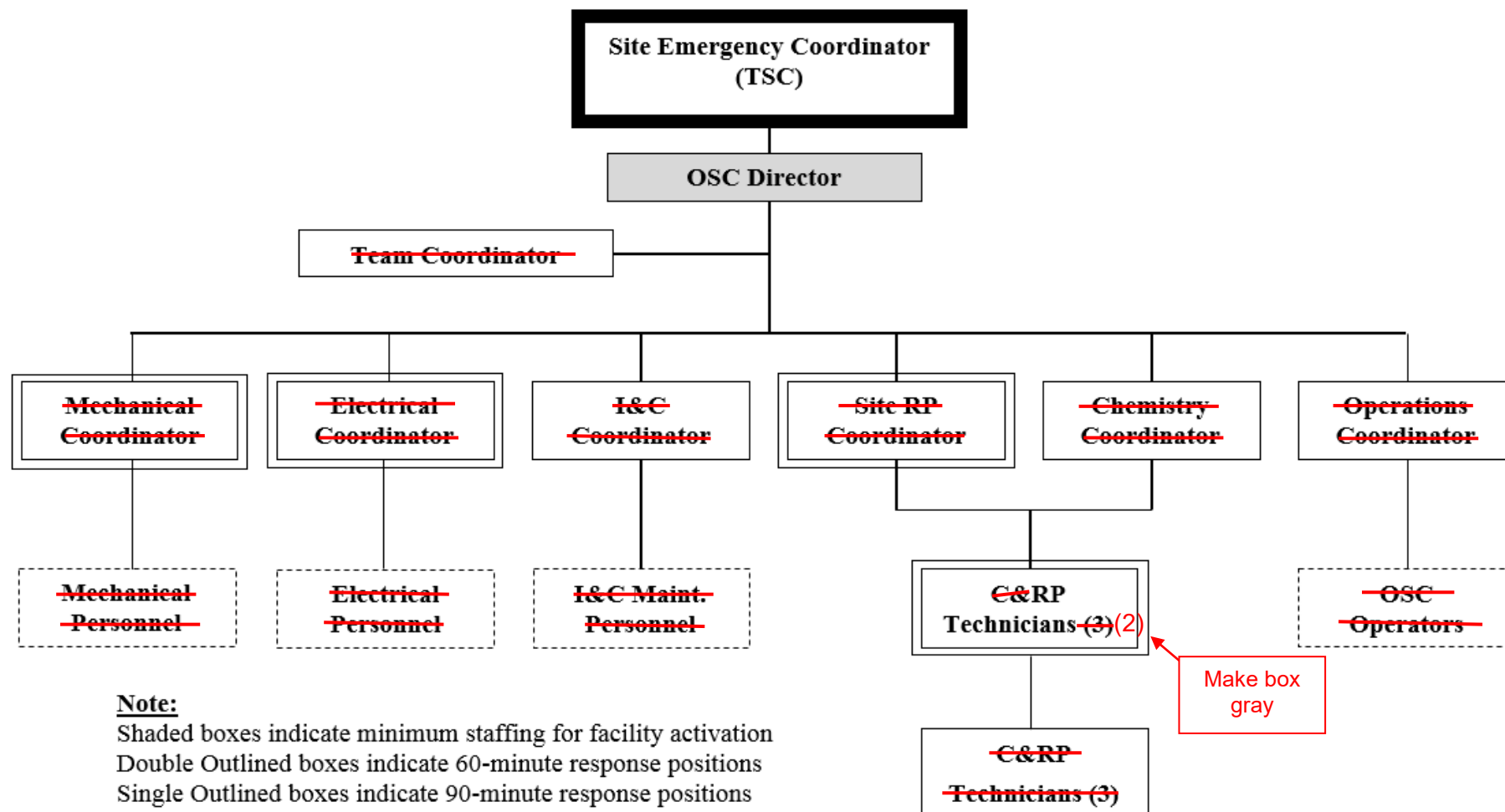
5.21 FIGURE 5-1, OVERALL COMMAND AND CONTROL STRUCTURE



5.22 FIGURE 5-2, TSC ORGANIZATION



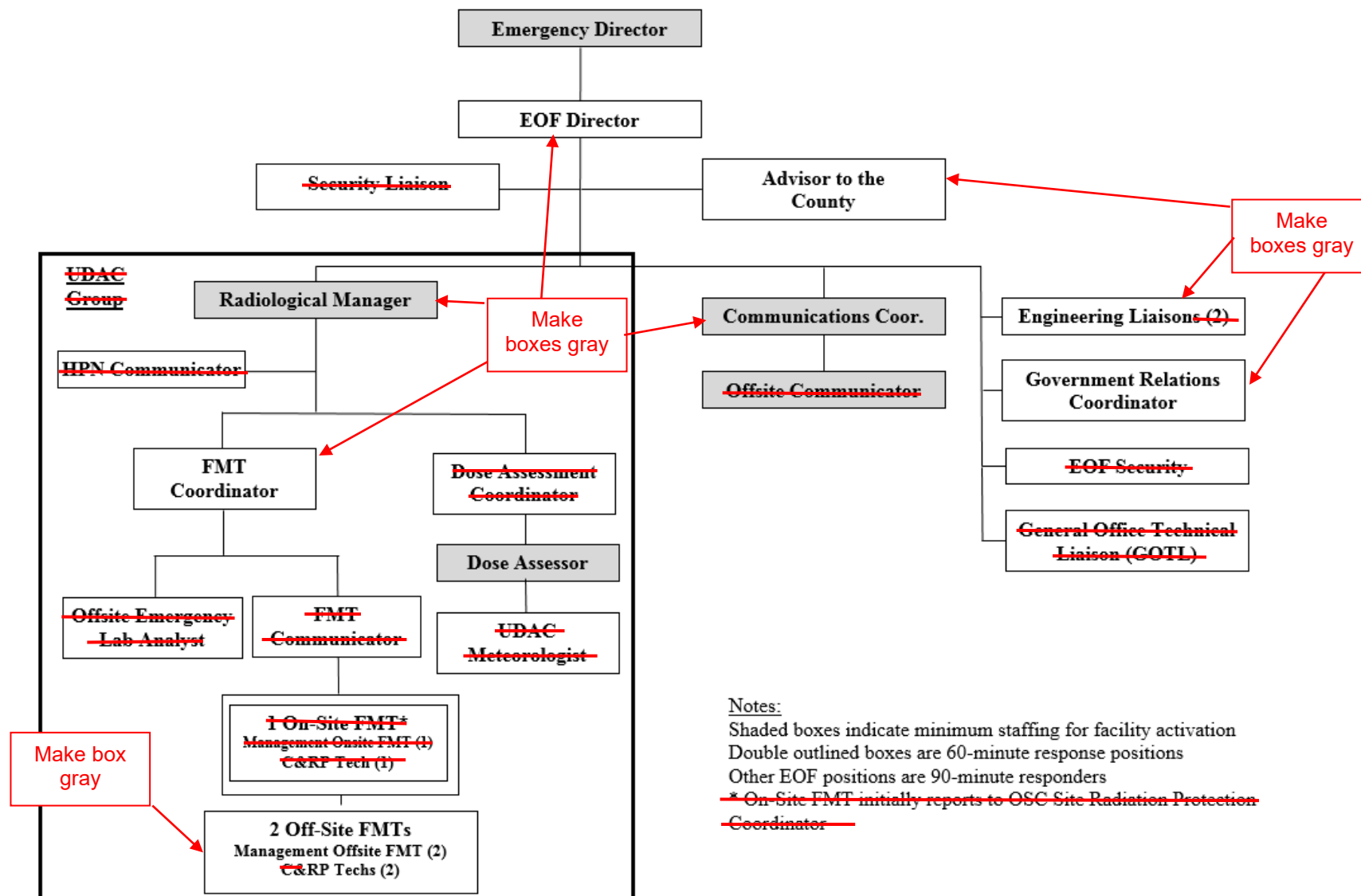
5.23 FIGURE 5-3, OSC ORGANIZATION



Note:

Shaded boxes indicate minimum staffing for facility activation
Double Outlined boxes indicate 60-minute response positions
Single Outlined boxes indicate 90-minute response positions
Dotted Outlined boxes indicate called in positions
~~On Site FMT initially reports to OSC Site Radiation Protection Coordinator (see Figure 5-4)~~

5.24 FIGURE 5-4, EOF ORGANIZATION



5.25 FIGURE 5-5, JIC ORGANIZATION

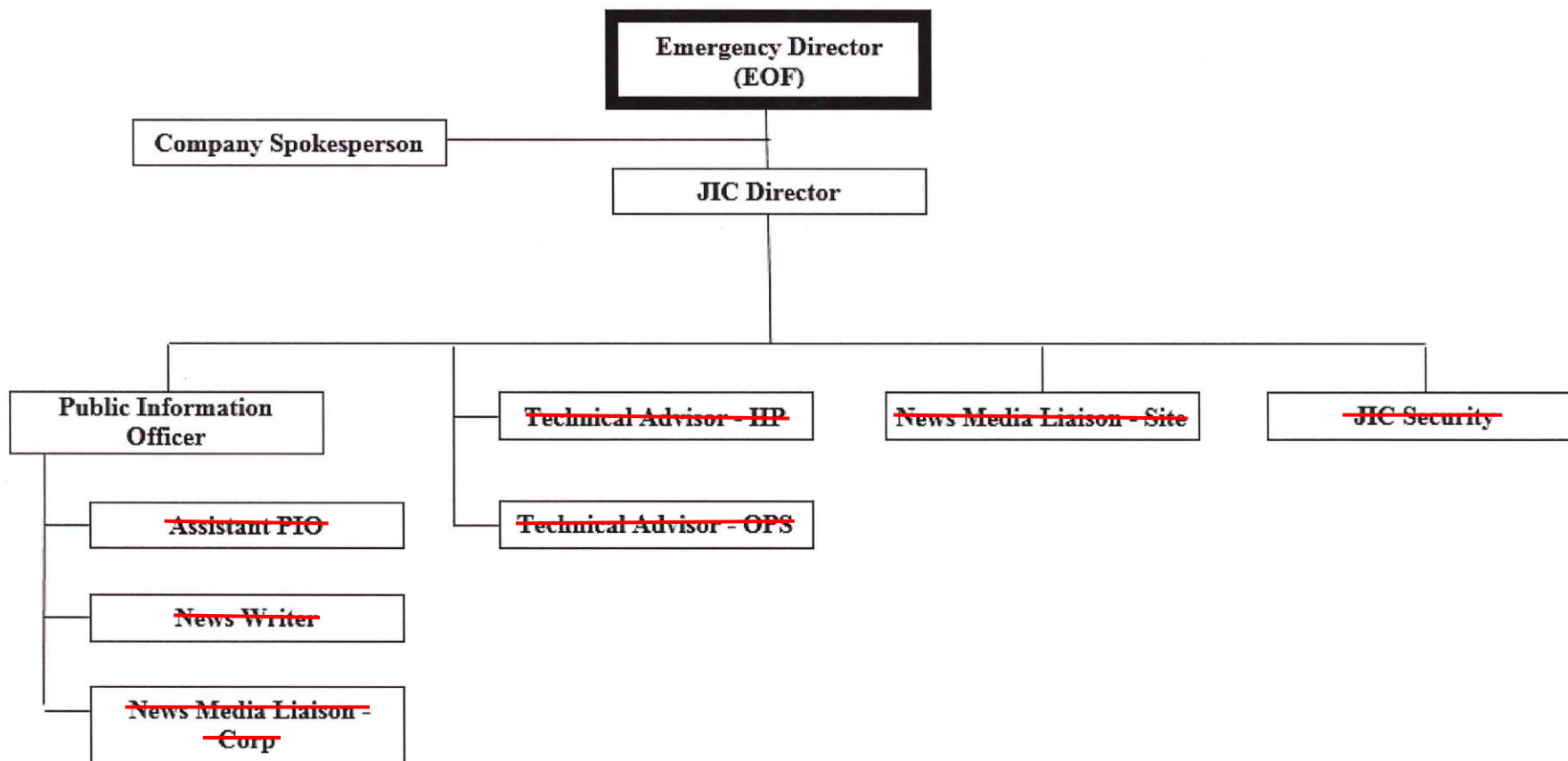


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6. EMERGENCY MEASURES

6.1 ACTIVATION OF THE EMERGENCY RESPONSE ORGANIZATION (ERO)

The four emergency classification levels require a varying degree and scope of emergency response. The Shift ~~Supervisor~~Manager will immediately initiate actions to limit the consequences of the event and to return the plant to a safe and stable condition. The ERO for an Unusual Event consists of the on-shift personnel. Normally, no further ERO augmentation is required, although several members of the plant management are notified and may choose to come to the plant, depending on the circumstances. The Shift ~~Supervisor~~Manager may activate all or a portion of the full ERO to limit the consequences of an event prior to an Alert or higher emergency classification level.

6.1.1 ERO Notification

The ERO notification process should be initiated immediately after the emergency declaration. Call-out of personnel is accomplished by pagers or telephone.

Typical driving time for personnel living in the nearby communities to arrive at their designated emergency response facility is between 30 to 60 minutes.

The ERO is grouped into teams for rotating ERO "on-call" duty assignments. All ERO personnel (on-call and off duty) are notified for an event at the Alert or higher emergency classification level, and are expected to respond to their designated facility provided they are fit for duty. Assigning duty team "on-call" positions ensures that the minimum required staffing for emergency response is fit for duty and locally available at all times. Maintaining an all-call process provides defense in depth such that if a minimum staffing position cannot be filled by the person on-call, other qualified personnel will be available to fill the position.

Key ERO position minimum staff requirements are based upon NUREG-0654, Table B-1 as provided in Section 5.

6.1.2 Emergency Response Facility Activation

For the Alert, Site Area Emergency, or General Emergency classification levels, the Technical Support Center (TSC), Operational Support Center (OSC), and Emergency Operations Facility (EOF) will be staffed by the augmented ERO.

The on-shift ERO will be augmented by the minimum staff ERO responders within approximately 90 minutes of event declaration (Alert or higher). Minimum staff ERO is defined as support personnel who will augment the on-shift plant staff in emergency situations as specified in Section 5.

The emergency response facilities will be activated when the augmentation ERO minimum staffing is complete.

Following emergency response facility activation, the transition of emergency responsibilities from the on-shift ERO to the augmented ERO will occur, with the augmented ERO assuming responsibilities as described in Section 5.

Other members of the plant staff may be requested to respond by a secondary call-out once the initial responders identify the personnel resources and expertise required to mitigate the event in progress.

6.1.3 Transition from Normal to Emergency On-Shift Staff

The normal and emergency on-site operating organizations are discussed in Section 5.

6.2 RESPONSE OF ON-SITE PERSONNEL TO EMERGENCY WARNING SIGNALS

Several warning systems are available to warn on-site personnel of an actual or potential emergency. Section 7 of the Emergency Plan describes the physical nature of these warning systems, and this Section describes on-site personnel response.

6.2.1 Site Emergency Signal

The site emergency signal consists of electronic warblers and beacon lights manually initiated from the control consoles or the hot shutdown panels. In an emergency, the signal will be sounded continuously for at least one minute. The signal is tested weekly on a seven day routine schedule. Except in cases of a severe emergency when the Shift ~~Supervisor~~Manager is not readily available, sounding of the site emergency signal requires Shift ~~Supervisor~~Manager approval.

All personnel upon receiving initial site access training are issued a site standards handbook which provides site emergency signal response information. All visitors coming onsite receive emergency signal information.

Upon receipt of the emergency signal, on-site personnel are trained to immediately report to pre-designated assembly areas unless otherwise directed by the site public address (PA) system.

Personnel are instructed to remain at the assembly area unless directed to leave by the Site Emergency Coordinator. If an assembly area is untenable, the person in charge in the area may direct personnel to leave, but will inform the Site Emergency Coordinator as soon as practicable.

~~6.2.2~~ Containment Evacuation Signal

~~The containment evacuation signal uses the site emergency signal warbler and warning lights within the containment. When this signal is initiated, personnel in the containment are instructed to immediately leave the containment and report to Access Control.~~

~~6.2.3~~ 6.2.2 Fire Signal

In the event the fire alarm is sounded, the Firefighters are dispatched as required. Other personnel are instructed to remain at their work locations and await further instructions. The fire signal is tested weekly on a seven day routine schedule.

6.2.46.2.3 Criticality Monitor

The criticality monitor alarms in the fuel handling areas and nearby hot machine shop are horns that are automatically initiated on high radiation level, as measured by the area monitors in the fuel handling building. Upon receipt of this signal, personnel in the area are instructed to immediately leave and report to Access Control.

6.3 STAFFING OF THE CORPORATE EMERGENCY ORGANIZATION

The Corporate Emergency Organization is discussed in Section 5.

The Corporate Emergency Organization can be staffed by the Emergency Director by notifying Corporate Security or Corporate Emergency Planning Department in San Francisco. These positions are available on a 24-hour basis.

The Corporate Emergency Response point-of-contact is promptly notified of any occurrence that would be reported under the provisions of the Emergency Plan. The extent to which corporate resources are staffed is based on staged mobilization depending on the nature of the occurrence.

6.4 ACTIVATION OF THE COUNTY EMERGENCY ORGANIZATION

Activation of appropriate portions of the County emergency organization is accomplished by telephone or radio communication from the plant Control Room to the Sheriff's Watch Commander at the County Sheriff's Office Dispatch Center. Provisions are included for message authentication.

The San Luis Obispo County emergency organization will activate at the Alert, Site Area Emergency, and General Emergency classifications. The County emergency plan provides for activating the ~~Emergency Operations Center (EOC)~~ and non-utility portion of the EOF under these emergency classification levels. The County emergency plan details activation procedures for County emergency response operations. When the EOC is activated for an emergency classification, plant staff personnel will be available at the County EOC to advise the County on plant equipment and plant radiological status.

Initial and follow-up emergency messages for each emergency classification are delivered by DCPD to the Sheriff's Watch Commander until relieved by the Advisor to the County who relays the messages to County Command in the EOC. To ensure that all necessary information is clearly transmitted, a standard Emergency Notification Form (ENF) is used. This ENF provides for such entries as the classification of the emergency, if a radioactive release is taking place, potentially affected population and areas, and what protective measures may be necessary. Follow-up messages provided to off-site authorities provide a comprehensive description of the incident with a characterization of the radioactivity release and appropriate recommended protective measures.

6.5 ASSESSMENT ACTIONS

In Section 4, a brief description of the basic assessment process is discussed for each of the postulated emergencies that were described. This Section contains a more detailed discussion of the four most important assessment functions namely:

- The proper functioning of ~~emergency-SFP~~ cooling systems for emergencies involving possible degradation of the ~~core-spent fuel~~ heat sink

- The assessment of core-fuel condition in such a circumstance
- The estimation of the magnitude of a release, and
- The determination of the environmental consequences of a release

6.5.1 Verifying Proper Operation of the Spent Fuel PoolEmergency Core Cooling System-(ECGS)

The design basis of the ECGS-SFP Cooling System is to maintain a water inventory in the SFP sufficient to: keep the spent fuel immersed, support iodine decontamination factor assumptions, and provide for reactivity control~~prevent a radioactive release by protecting the three major fission product barriers: the fuel cladding, the reactor coolant system (RCS) piping, and the containment structure. A breach of all three barriers is necessary before radioactive contamination is released to the atmosphere that might pose a hazard to the health and safety of the public. If a Loss of Coolant Accident (LOCA) or Steam Generator Tube Rupture (SGTR) occurs, the reactor protection system will automatically trip the reactor and initiate the ECGS.~~

In the event of a ~~reactor accident~~loss of SFP level, the Shift ForemanCFH, with the assistance of the operating crew, will ~~ensure the reactor is tripped and will~~ enter the Emergency Operating Procedures (EOPs). The EOPs:

- ~~Verify the reactor is shutdown~~
- Verify the operation of the ECGS-SFP Cooling System equipment
- Diagnose the event~~accident~~
- Provide corrective actions to mitigate or alleviate the problem

If the expected action is not obtained or the equipment does not function properly, the EOPs direct alternate, remedial responses. Criteria for upgrading to a General Emergency during a LOCAloss of SFP level event are found in the Emergency Action Levels (EAL) and Appendix D.

6.5.2 Assessing Fuel Condition~~Challenges to Fission Product Barriers~~

During the implementation of the EOPs, the Work Control Shift ForemanCFH is responsible for monitoring the ~~reactor's critical safety functions to ensure that the remaining fission product barriers are not breached~~fuel condition. These functions are:

- ~~Subcriticality~~ ~~Verifying the reactor is shut down~~ ~~prevent clad failure~~
- ~~Core Cooling~~ ~~Ensuring the reactor core is being cooled~~ ~~prevent clad or RCS failure~~
- ~~Heat Sink~~ ~~Ensuring the heat in the reactor is being dissipated~~ ~~prevent clad or RCS failure or Containment failure~~
- ~~RCS Integrity~~ ~~Monitoring the reactor temperature to prevent thermal shock~~ ~~prevent RCS failure~~
- ~~Containment~~ ~~Monitoring containment parameters to ensure containment integrity~~ ~~prevent Containment failure~~

- ~~RCS Water Inventory—Monitoring RCS water levels—prevent clad or RCS failure~~

Upon completion of the initial ~~accident event~~ diagnosis, the ~~Work Control Shift Foreman~~CFH will notify the Shift ~~Foreman~~ Supervisor of the ~~critical safety function~~fuel status. If ~~a safety function~~the fuel condition is threatened, an ~~alternate EOP functional restoration/mitigating~~ procedure will be used to mitigate the problem.

~~6.5.3—Assessing Core Damage~~

~~Preliminary core damage assessment uses containment radiation levels, core exit thermocouple temperatures and containment hydrogen levels to estimate the type and amount of potential core damage. As available, Reactor Vessel Level Instrumentation System (RVLIS), hot leg Resistance Temperature Detector (RTDs) and source range monitors (SRMs) are used to confirm the reasonableness of the containment radiation and core exit thermocouple based damage estimates.~~

~~Long term core damage assessment methodology uses reactor coolant sample analysis to determine the extent of core damage more accurately.~~

~~6.5.46.5.3~~ **Assessing Release Magnitude**

During the initial stage of an off-site release, the ~~Work Control Shift Foreman~~CFH will make a preliminary dose assessment calculation of any off-site release to determine the accident classification per Emergency Plan Implementing Procedures. After the Unified Dose Assessment Center (UDAC) is staffed, they will take over these responsibilities and perform more detailed calculations. These calculations use various radiation monitors, ventilation flow rates, wind speed, direction, stability classification, and plant parameters to project an estimate of the magnitude, direction, and size of the radioactive plume. The results of these calculations will be included in ~~Protective Action Recommendations (PARs)~~ to County personnel. Refer to Appendix G for additional discussion regarding PARs at DCCP.

6.6 OVERVIEW OF THE ASSESSMENT AND MONITORING PROGRAM

The following is a general discussion of the monitoring program. If sufficient personnel are immediately available, or as they become available, several monitoring teams can be formed and several of the steps should be performed simultaneously.

6.6.1 Assessment of Environmental Consequences of Airborne Releases

In the first few hours following a release of airborne radioactive materials to the environment, a monitoring program will be established to assess the extent of the release and to provide guidance for appropriate protective measures. The general program and measurement techniques for environmental monitoring following a suspected airborne release are discussed in this Section.

The principal early concerns are thyroid exposure due to inhalation of radioactive iodines and/or whole body exposure from immersion in a cloud of radioactive noble gases. Criteria for taking protective actions such as sheltering and evacuation are expressed in terms of these two variables, and early off-site government agency efforts will be directed toward their assessment. Following this, efforts by off-site authorities will normally be directed toward the evaluation of possible long-term exposures from ground deposition and various food-chain pathways.

6.6.2 Off-Site Dose Calculation

The scope of off-site dose calculation is to establish methodologies for performing early phase dose assessments used for evaluating the need to evacuate, shelter, or implement other appropriate protective actions for individuals located within the ~~Diablo Canyon Power Plant (DCPP) Emergency Planning Zone (EPZ)~~. Additionally, off-site dose projections are used to support event classification.

In the event of an accident at DCPD involving an actual or a potential release of radioactive materials, projected off-site doses to members of the public will be determined.

6.6.2.1 Emergency Assessment and Response System (~~EARS~~)/Meteorological Information Display Assessment System (MIDAS) Methodology

EARS/MIDAS is the primary dose assessment methodology and is intended to provide users with greater accuracy for projecting offsite dose. EARS/MIDAS is capable of performing dose assessment using multiple, simultaneous releases including those resulting from a multi-unit accident.

EARS/MIDAS is based on ~~Environmental Protection Agency (EPA)~~ Regulatory Guide 400-R-92-001, "EPA Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," which serves as the source document for implementing ~~Protective Action Guides (PAG)~~ to protect the members of the public and emergency workers in the event of a radiological accident at DCPD. EARS/MIDAS calculates centerline and off-centerline dose using a variable trajectory Gaussian plume segment model. The plume is modeled using multiple meteorological inputs to account for the complex terrain surrounding DCPD.

EARS/MIDAS is typically run in automatic mode using automated data entry for key inputs such as meteorological and radiological data.

6.6.2.2 Alternate Methodologies

If the normal EARS/MIDAS workstations are not operational, back-up manual entry laptops with EARS/MIDAS installed are available for use by the on-shift organization as well as by the augmented ERO.

In the unlikely event EARS/MIDAS becomes completely unavailable on both the normal workstations and on the back-up manual entry laptops, an alternate dose assessment model, QuickDose, is available for use by the augmented ERO.

QuickDose is installed on the ~~local area network (LAN)~~ and on the back-up manual entry laptops, making it available in the same locations as EARS/MIDAS.

QuickDose calculates centerline dose based on a straight line Gaussian plume calculation, using Regulatory Guide 1.145 methodology, displayed in a distance table. The plume and dry deposition exposure duration is 96 hours at all distances.

6.6.3 Estimate the Magnitude of the Release and Release Rate

In most cases, a release to the environment will be monitored by permanently installed, real time monitoring instruments at the effluent release points and at various locations in the environment. These instruments will be promptly checked to estimate the release rate and magnitude of the release. In addition, these monitor readings will be correlated with analysis data of the source terms of these releases. In those cases where the unavailability of monitoring instruments does not make the above possible, (due to monitors being off-scale or inoperable) design bases accident summaries and on-site field monitoring team data will be used to make the most accurate initial estimate of the magnitude of the release.

6.6.4 Determine If On-Site Personnel Assembly Areas are Affected

In the event of a major release, protection of on-site personnel is a high priority consideration. On-site monitoring is conducted to assure personnel safety in the assembly areas by performing dose rate and air sample surveys with the following objectives:

- Determine whether the external dose rate has reached an action level for evacuation.
- Determine whether iodine sampling is necessary.

The determination of airborne radioiodine concentration takes several minutes, due to the time required to obtain an air sample. In the early stages of assessment, it may not be desirable to collect air samples if it has been determined radioiodine is not a problem. Since noble gases will always accompany iodine in a release, and in general will be released in substantially greater quantities, it is possible to set an upper limit on the possible airborne iodine based upon a measurement of the external dose rate.

In general, air samples are immediately collected if the general area gamma dose rate exceeds 3 mR/hr, and can be deferred for dose rates below this. This criterion is based upon predicted noble gas/iodine release rates for major accidents. Air samplers used to detect and measure radioiodine concentrations in the DCPD vicinity have a measuring range between 1E^{-10} and 1E^{-6} microcuries per cubic centimeter ($\mu\text{Ci/cc}$).

Results of these surveys are transmitted to the Radiological Advisor who may recommend evacuation or other on-site protective measures as warranted.

6.6.5 Perform General Monitoring On-Site

Once it has been determined personnel in on-site assembly areas are not endangered, the monitoring program should be directed toward a general assessment of radiological conditions on-site by making appropriate downwind surveys.

Because the location of a plume is often difficult to determine, it is necessary for monitoring teams to "fan out" circumferentially from the measured downwind direction. However, on-site terrain makes it difficult to reach all areas. The preferred monitoring locations would be along the circumference of a circle of approximately 0.5 mile radius from the reactor.

Where it is not possible to reach downwind monitoring locations at the 0.5 mile distance, it will be necessary to move in either closer to the ~~reactor~~SFP, or farther away. If a ground level release is the most likely, then moving in closer is preferred. If the release is elevated, then moving farther away is preferred.

To reduce confusion during the early stages of on-site data collection, predetermined monitoring locations near the 0.5 mile site boundary have been marked by easily identifiable poles. These are suggested locations for obtaining initial measurements.

The data gathered from on-site monitoring will be forwarded by satellite telephone, cellular telephone, or radio to the Control Room, TSC, or EOF where that data can be evaluated by responsible assessment personnel. These personnel will then recommend protective actions, as appropriate, to the individual with Command and Control: Shift ~~Supervisor~~Manager, Site Emergency Coordinator, or Emergency Director. The individual with Command and Control will make the decision to notify appropriate Company and County personnel regarding release status and make appropriate protective action recommendations.

6.6.6 Establish Off-Site Monitoring

If any of the assessment actions verify that a significant release has occurred, Field Monitoring Teams will be immediately dispatched to perform off-site monitoring. The teams will perform external dose measurements, obtain air samples, and can perform ground and vegetation surveys if required. This monitoring will continue throughout the duration of the accident so that the need for protective measures can be quickly assessed.

6.6.6.1 Identification of Monitoring Locations

Because it is extremely important to clearly and unambiguously identify locations where environmental measurements are made, a systematic approach has been developed to identify monitoring locations that are used throughout the Emergency Plan, showing the site and surrounding areas, respectively.

1) Emergency Monitoring Locations

Suggested emergency monitoring locations have been established for each sector. These are easily identified locations in the environment to which teams should travel to obtain their initial samples and are chosen to produce data from representative environmental locations. By identifying these locations ahead of time, there is assurance that teams will obtain the maximum information during the early stages with minimum logistical difficulty. Although the Radiological Manager or the Field Monitoring Team may choose to sample at alternative locations, it must be emphasized that any such "nonstandard" locations must be carefully identified.

Where fixed instruments are located in the environment, the "emergency monitoring location" usually coincides with the location of the fixed instrument.

2) Real Time Monitoring and Environmental Sampling Locations

There is an extensive network of real time monitors, TLDs, and air samplers surrounding the plant. The real time monitors will be automatically interrogated throughout the course of the accident and the environmental assessment. In some circumstances, it may be desirable to have the TLDs from the TLD stations collected and have the data analyzed. Field Monitoring Teams are directed, however, to not collect these TLDs if the EOF Radiological Manager determines that it is necessary to measure the integrated dose over the duration of the emergency where continued releases are a possibility.

3) Dairies

Because the milk pathway is often the limiting pathway, when an actual release has occurred, if a milk dairy is in the area, milk samples will be analyzed as part of a long-term program.

6.6.6.2 Environmental Measurements

The Field Monitoring Teams have a standard series of samples and measurements that they are prepared to make. These samples and the major uses to which the various data can be put are discussed below.

1) External dose rate and count rate three (3) feet above ground.

Measured external dose rates may be used in comparison of Effective Dose Equivalent (EDE) for verification of dose projection models.

2) Ground Surveys

Count rate measurements made close to the ground using a shielded probe can provide an indication of the magnitude of ground contamination.

3) Air Samples

Provide airborne radioiodine and particulate data if the plume is present and may be used for estimating internal exposure using dose conversion factors.

4) Vegetation Samples

Provide information on vegetation contamination for evaluating food chain doses for ingestion pathway monitoring.

5) Soil Samples

Provide information on ground contamination which is used to estimate food chain doses for ingestion pathway monitoring.

6) Liquid Samples

Can be used to estimate ingestion doses for the long-term program.

7) Smear Surveys

Indicate need for decontamination measures. Smear samples may also be analyzed by a lab to determine isotopic content of ground deposition.

6.6.6.3 Assessment of Off-Site Field Monitoring Data

Environmental monitoring data serves as part of the basis for determining what protective actions are required to protect the public. The group in the ~~Unified Dose Assessment Center (UDAC)~~ has the function to assess this data and recommend protective actions to the County Emergency Services Director. This group is composed of DCPD, County, State, and Federal personnel. Details on the mechanisms by which this group functions are as follows:

- 1) Field Monitoring Teams will meet at a predetermined location to obtain emergency sampling kits, radios, etc., and will be dispatched to standard monitoring sites in affected areas. Samples will be collected and analysis made as discussed earlier in this Section.
- 2) The locally obtained survey data will be communicated by satellite telephone, cellular telephone, or radio to the ~~Control Room (CR)~~ or TSC initially or, once established, to the ~~Unified Dose Assessment Center (UDAC)~~ at the EOF using the County Brown radio network as the primary communications mode with cellular telephones and satellite telephones available as a secondary backup. Results from samples requiring more detailed laboratory analysis will be forwarded to UDAC from the various laboratories using telecommunication links.
- 3) UDAC personnel will interpret this data and, based on this assessment, make recommendations to the decision-making body. The primary method for handling this data will be through use of EARS/MIDAS with backup methods as necessary to provide reliability.

6.6.7 Backup Off-Site Dose Assessment Calculation Methods

Backup methods for assessing radiological doses due to an airborne release provide redundancy to the automated real-time system normally employed as described in Section 6.6.2.2.

6.7 ON-SITE PROTECTIVE ACTIONS

6.7.1 Alerting of On-Site Personnel

If on-site protective actions are required, on-site personnel are alerted that an emergency condition exists by the sounding of the site emergency signal and a public address announcement. Visitors either have been briefed on the meaning of the plant emergency signals or are escorted by individuals knowledgeable on actions to be taken upon activation of the signals. This applies to visitors and contractors outside and within the plant Protected Area. This signal provides an immediate alert for all on-site personnel.

Supplementary alerting mechanisms for limited areas include the fire alarm, ~~and~~ criticality monitor, ~~and containment evacuation~~ signals. A physical description of these alarm signals is included in Section 7 of the Emergency Plan.

On-site tests have been performed to verify the response time for on-site personnel when the site emergency signal is sounded. These tests have shown assembly and accountability of employees can be expected in approximately 30 minutes.

Agricultural workers on the bench land will be alerted by Security personnel per procedure.

6.7.2 On-Site Personnel Accountability

Several methods for personnel accountability are employed at DCP. Each of these is discussed below.

6.7.2.1 Plant Personnel

The accountability procedures for plant personnel are intended to provide rapid assessment of who is on-site at any given time and where they are located. Several means are employed for personnel accountability, including control of identification badges, supervisory control, and written accountability logs.

As a prelude to the following discussion, it should be noted that plant personnel are provided with automobile passes enabling them to pass the Avila Gate entrance to the site on a 24-hour basis.

1) Control of Identification Badges

Each person requiring long-term site access for their employment is issued a Protected Area identification badge for personal identification. The Protected Area identification badge is required for unescorted access into the Protected Area. Personnel visiting the site are provided visitor identification badges that are activated for the visiting period. Visitor badges provide an easily identifiable visual indication when expired. All personnel with authorized site access can be uniquely identified as a visitor or individually using their Protected Area identification badge. Personnel issued Protected Area identification badges are required to maintain control over their badges.

2) Supervisory Accountability

In general, it is the responsibility of supervisors to know which of their personnel are on-site and at their work location. Personnel report to their designated work headquarters and inform their supervisors of their presence. The supervisors are then responsible for knowing the general whereabouts of their personnel during the remainder of the work period.

3) Computerized Security System

A computerized record is maintained of personnel who enter or leave the Radiological Control Area (RCA), the Power Block, and the Protected Area. The computerized security system can be used to determine personnel accountability inside these areas.

Personnel entering the RCA must obtain written authorization in the form of a Radiation Work Permit (RWP).

A log of all visitors to the Protected Area is maintained by Security.

6.7.2.2 Emergency Assembly and Accountability Process

Assembly: At the sounding of the site emergency signal, all non-essential site personnel report to an assembly area outside the Protected Area and await further instructions. All personnel essential for emergency response and safe operation of the plant (ERO member, Plant Operations, Security, or Medical) will assemble at designated assembly areas or Emergency Response Facilities.

Accountability: At the sounding of the site emergency signal all individuals remaining within the Protected Area are accounted for and the names of missing individuals are determined within 30 minutes. Once established, accountability is maintained throughout the course of the event. Should unaccounted for personnel be determined missing, search and rescue operations are initiated. Accountability is coordinated by the Diablo Canyon Watch Commander and results forwarded to the Site Emergency Coordinator.

6.7.2.3 Visitor Assembly and Accountability

The following assembly process is employed for visitors at DCP. A visitor, as used in this Section, refers to anyone who is not a member of the plant staff or is not employed with their normal work location at the site. This includes persons from outside the Company as well as Company personnel who are not assigned to the plant.

Prior to being allowed escorted entry into the Protected Area, visitors are required to sign the Visitor Log at the security building when they arrive.

In general, visitors will have business with one or more plant personnel and their accountability while in the Protected Area will be the responsibility of their escort. During plant start-up, refueling outages, or other special conditions, certain visitors may work for extended periods in the plant. In some cases, visitors may require unescorted access privileges while in the plant. Where these personnel are assigned to established work areas, instructed and badged as plant personnel, they may be treated as members of the plant staff for purposes of personnel accountability.

Each visitor is escorted when in a RCA unless instructed in the basic fundamentals of the Company's radiation protection program, including: identification of emergency and evacuation signals and action to be taken if they are sounded, identification of possible radiation hazards locations, and use of applicable protection and monitoring devices.

Visitors are assigned to an assembly area outside of the Protected Area. Accountability is accomplished by checking that each person listed on the Visitor Log has exited the Protected Area. Visitors with unescorted access are accounted for in the same manner as plant staff.

6.7.3 Evacuation of On-Site Non-essential Personnel

Evacuation of on-site non-essential personnel is one important protective action considered in emergency situations. Non-essential personnel include visitors and contractor personnel, and any other on-site individuals not having emergency response assignments.

6.7.3.1 Evacuation Criteria

The decision to evacuate non-essential personnel shall be made by the Shift ~~Supervisor~~Manager until relieved by the Site Emergency Coordinator.

Since non-essential personnel are not emergency workers, they typically would be evacuated in the event of a Site Area Emergency or General Emergency; however, in certain situations it may be desirable to evacuate these individuals at the Alert level.

The Shift ~~Supervisor~~Manager or Site Emergency Coordinator's decision to evacuate non-essential personnel will be based on the desire to protect the health and safety of these individuals within the constraints of the situation. It is desired to keep non-essential personnel exposures as low as reasonably achievable, and to the extent possible, lower than annual federally established limits for members of the public.

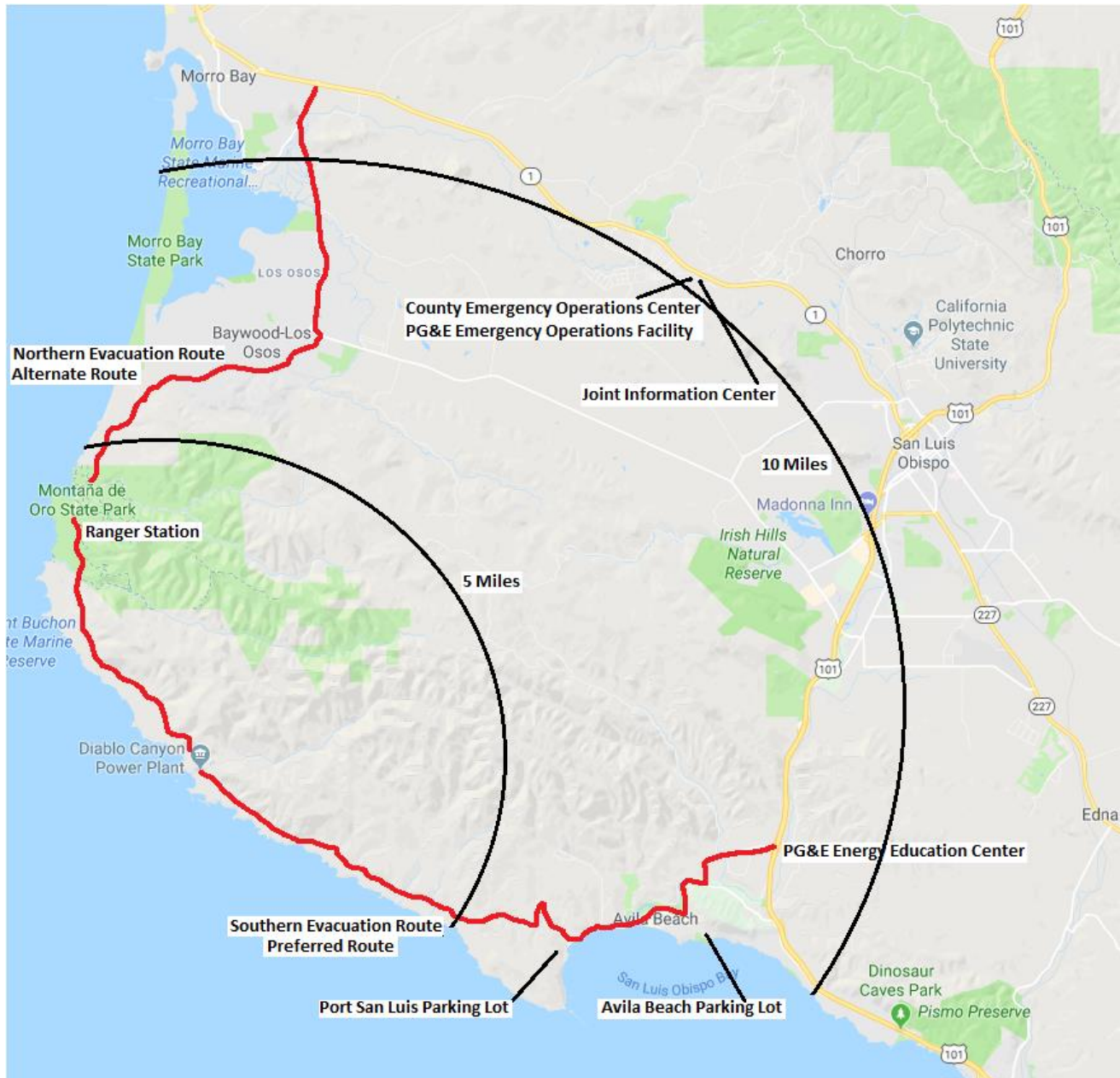
Anytime evacuation is considered it must be weighed against the consequences of not evacuating. In certain cases evacuation may result in higher evacuee exposures than if individuals remain in a shielded or otherwise protected area. In these cases evacuation would be inappropriate.

6.7.3.2 Evacuation Route Considerations

Two routes are available for evacuation from the site. The preferred route is south along the access road to Avila Gate. If conditions prevent the use of the southern route, the evacuation can take a northern route through Montana de Oro State Park. The southern route is preferred because the road is better. The northerly route would only be used in the event of northern wind with a large-scale radiological release or if the southern route is impassable or unsafe.

Alternate off-site assembly areas are available for each route. For the southern route, evacuees can meet at the PG&E Energy Education Center, the frontage road along U.S. 101 north of the Energy Education Center, the Port San Luis Parking Lot, or the parking lot at Avila Beach. For the northern route, evacuees can meet at the Ranger Station in the Montana de Oro State Park. Preferred locations would be determined by selecting a direction away from the wind direction of movement. If it is a precautionary evacuation, locations nearer the site would be suitable; otherwise the more distant locations would be preferred. The decision on which route and rendezvous point to be used shall be made by the Shift ~~Supervisor~~Manager or Site Emergency Coordinator. Evacuation routes are illustrated below.

6.7.3.3 Evacuation Routes for On-Site



6.7.3.4 Evacuation Procedure

Following the alerting and accounting of on-site personnel, if evacuation is required, the following general steps would occur:

- 1) The Shift ~~Manager-Supervisor~~ or Site Emergency Coordinator will authorize the evacuation and determine which route and off-site assembly areas shall be used. This information will be transmitted to the Evacuation Coordinator, appointed by the Shift ~~Manager-Supervisor~~ or Site Emergency Coordinator.
- 2) The Communications Advisor will notify the Sheriff's Department or the Advisor to the County (coordinates with County Command) of the evacuation, specifying the evacuation route, the assembly areas, the approximate number of cars and individuals being evacuated, pertinent radiological information, and any other information useful in the evacuation.
- 3) The Evacuation Coordinator is responsible for conducting the evacuation in a safe and orderly fashion. This includes clearing the evacuation route (owner controlled area), personnel accountability of evacuees off-site, assuring transportation traffic control measures, and appointing at least one Radiological Monitor and an Evacuation Leader for each major assembly area.
- 4) The Evacuation Coordinator is responsible for delivery of the evacuation kits from their storage location to the off-site assembly area. Additional supplies are available on-site in the ~~Field Monitoring Team (FMT)~~ kit storage areas.
- 5) A ~~C&RP~~ Technician will leave with each group of evacuees, to monitor doses as the evacuation proceeds.
- 6) At the off-site assembly area the ~~C&RP~~ Technician will be responsible for evacuee dosimetry and contamination control. Typical duties would include the establishment of contamination control areas; surveys of personnel, autos, and other items; decontamination as required; collection and reading of dosimeters; collection of personnel dosimetry devices; and necessary record keeping. Surveys, decontamination techniques, release levels, etc., shall be in accordance with applicable radiation control procedures contained in the plant manual.
- 7) If evacuated non-essential personnel arriving at the off-site assembly areas are contaminated, actions will be taken to decontaminate the evacuees and to prevent the spread of contamination. Equipment and supplies, along with generalized instructions, necessary to perform these actions are contained in the two decontamination showers located at the PG&E Energy Education Center. The showers are stocked with soap, shampoo, towels, clothing, and other decontamination supplies.
- 8) The Evacuation Team Leader is responsible for communicating status reports to the Evacuation Coordinator, maintaining accountability of personnel in attendance, and monitoring all other activities at the off-site assembly area when in use.

6.7.4 Use of On-Site Protective Equipment and Supplies

Certain protective measures may be used to reduce the exposure to emergency workers.

6.7.4.1 Respiratory Protective Equipment

The quantities and types of respiratory protective equipment available for an emergency are discussed in Section 7. Respirators for routine plant use are also available for emergency use. Before an emergency worker may use a respirator, prerequisite requirements for respirator training, fitting and medical surveillance must be satisfied. If all respirator program requirements are not satisfied, no credit should be taken for the respirator when estimating exposure reduction prior to exposure (i.e., respirator Protection Factor = 1). It is the responsibility of the Radiological Advisor or Radiological Manager to determine when respiratory protective equipment use is appropriate, and to select the correct equipment for the expected radiological conditions. The use of respirators should consider maintaining TEDE ALARA for the individual worker; respirators should not be used exclusively for reducing radioiodine or lens of the eye exposure.

6.7.4.2 Protective Clothing

Protective clothing is maintained on-site for routine use and is available in sufficient quantities for use during emergencies. Protective clothing provides minor protection against penetrating external radiation sources, but is intended to keep contamination off the clothes and skin of individuals and to control the spread of contamination. Protective clothing should be worn when entering known or potentially contaminated areas and should be removed upon exiting.

6.7.4.3 Thyroid Blocking Agent

Stable ~~potassium iodine~~ (KI) tablets are stockpiled and maintained at various on and off-site locations for distribution to emergency workers for emergencies involving significant releases of radioiodine. KI protects an individual's thyroid from airborne radioiodines by blocking the thyroid with stable iodine prior to or during exposure. Since it is a Food and Drug Administration ~~(FDA)~~ approved drug, the Site Emergency Coordinator or the Emergency Director, with advice from the Radiological Advisor or the Radiological Manager, shall determine when the use of KI would be appropriate.

6.7.4.4 Emergency Dosimetry

An ample supply of dosimetry, both self-reading and various types of thermoluminescent dosimeters (TLDs) are available at the RCA Access Control point, ready for immediate issue to emergency workers. Supplemental emergency dosimetry is stored in kits at various on and off-site locations. The purpose of the kits is for issuing dosimetry quickly to emergency workers that:

- are not RCA qualified, or
- need high range self-reading dosimetry, or
- cannot easily gain access to normal dosimetry storage areas

Processing of TLDs is done by an offsite vendor.

6.7.5 On-Site Contamination Control Measures

DCPP's contamination control program consists of radiation control standards that specify measures to minimize the potential for personnel contamination and the spread of contamination. These standards specify criteria for surveys, the establishment of contamination control areas and acceptable surface contamination levels. In the event of an emergency, these same criteria would be used to determine which additional areas of the site would require access control measures. Likewise, these criteria would be used to determine when areas and equipment could be returned to normal use.

To assure on-site personnel do not receive excessive exposure from the ingestion pathways, drinking water and food supplies that have been within the boundary of an RCA, should not be consumed.

Equipment and supplies necessary to establish contamination control areas, and for the decontamination of equipment, areas, or personnel are routinely stored in the Auxiliary Building. Additional supplies are stored at the Learning Services Building and various off-site locations. Decontamination supplies are at the PG&E Energy Education Center.

6.8 OFF-SITE PROTECTIVE ACTIONS

6.8.1 Alerting Off-Site Personnel

Off-site emergency support personnel are alerted by telephone or radio of emergency events and situations as discussed earlier in this Section.

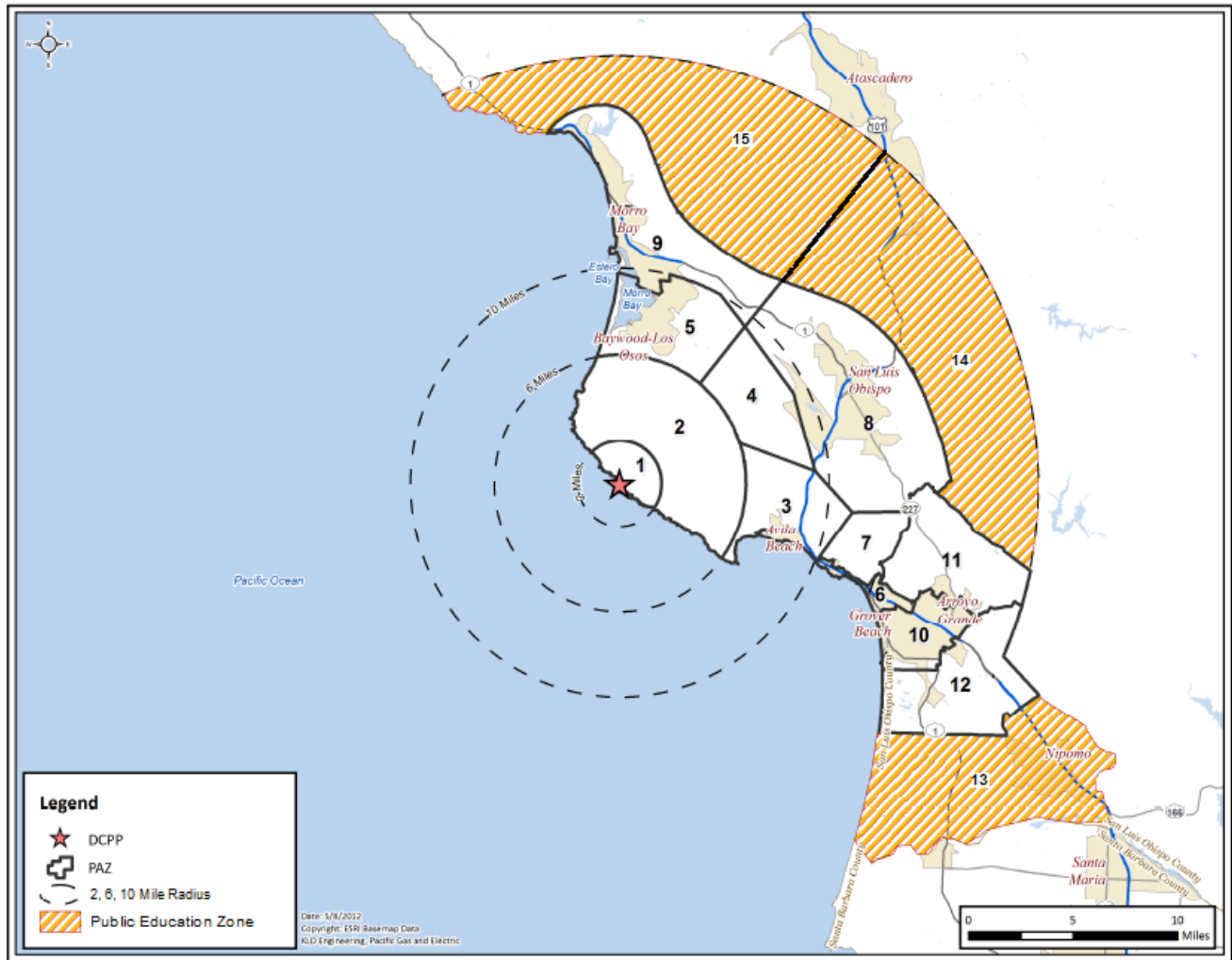
Alerting the general public is the responsibility of local governmental authorities. Specifically, it is the responsibility of the SLO County Emergency Organization which is headed by the County Administrator in the role of County Emergency Services Director under the advisory direction of the County Board of Supervisors.

The lead agency for implementing the public alerting process is the SLO County Sheriff's office.

The Early Warning System is supplemented by special provisions for certain segments of the public as described in the SLO County/Cities Nuclear Power Plant Emergency Response Plan. Provisions are included in the plan for the Sheriff's office to promptly warn all persons in the Emergency Planning Zone upon the determination that general protective actions are necessary. For events of lesser significance, the timing, extent, and method of an emergency public warning (prior to the issuance of a normal media release) would be at the discretion of the County Emergency Organization.

6.8.2 Protective Actions for the General Public

The responsibility and authority for ordering protective actions for members of the public rests with the State and local emergency organizations. The DCPP EPZ, ~~PAZ~~ Protective Action Zones and Public Education Zones (PEZs) are illustrated in the Figure below.



Protective Action Zones (PAZs)

1	2 - mile radius	7	Indian Knob/Price Canyon
2	6 - mile radius	8	San Luis Obispo Area
3	Avila/San Luis Bay/See Canyon/Squire Canyon	9	Morro Bay/Cayucos
4	Perfumo Canyon/Los Osos Valley	10	Five Cities, Southern Portion
5	Baywood/Los Osos	11	Orcutt Road, Lopez Drive, Route 227
6	Pismo Beach/Shell Beach	12	Nipomo North of Willow Road

Public Education Zones (PEZs)

13	Nipomo
14	Cuesta Pass/Santa Margarita
15	Route 41/Cypress Mountain Dr.

6.8.2.1 Public Protective Actions

A range of public ~~Protective Action Recommendations (PARs)~~ is available for the plume exposure EPZ. This range of public PARs is discussed in detail in Appendix G. Consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of ~~potassium iodide (KI)~~, as appropriate.

DCPP develops an initial PAR when a General Emergency is declared. DCPD notification of the offsite organizations of the initial PAR is coincident with notification of the General Emergency.

The Shift ~~Manager/Supervisor, Site Emergency Coordinator,~~ or Emergency Director should recommend protective actions based on the following criteria:

1) Criteria Based Upon Nature of the Emergency

When plant conditions warrant (i.e., a General Emergency has been declared) a recommendation to take immediate actions, such as sheltering or evacuation may be made by DCPD. ~~Protective Action Decisions (PADs)~~ will be made by a joint assessment group as described in the SLO County/Cities Nuclear Power Plant Emergency Response Plan.

Evacuation of some or all of the persons within ~~protective action zones (PAZs)~~ 1 and 2 and the ocean to 5 nautical miles may be recommended for any General Emergency situation regardless of whether or not any radioactive materials have been released from the plant. In situations of a controlled short term release, sheltering all persons within appropriate PAZs may be recommended.

2) Criteria Based Upon Public Exposure

Insofar as possible, evacuation of members of the general public should be carried out to prevent persons from receiving doses in excess of those listed in the table below.

Protective Action Guidelines for the Early Phase of a Nuclear Incident (Reference EPA 400-R-92-001)		
Protective Action	PAG (Projected Dose)	Comments
Evacuation (or sheltering)	1-5 rem ^b	Evacuation (or, for some situations, sheltering ^a) should normally be initiated at 1 rem. Further guidance is provided in Section 2.3.1 of EPA 400
Administration of Stable Iodine	5-25 rem ^c	Requires approval of State medical officials.
^a Sheltering may be the preferred protective action when it will provide protection equal to or greater than evacuation, based on consideration of factors such as source term characteristics, and temporal or other site-specific conditions (see Section 2.3.1 of EPA 400). ^b The sum of the effective dose equivalent resulting from exposure to external sources and the committed effective dose equivalent incurred from all significant inhalation pathways during the early phase. Committed dose equivalents to the thyroid and to the skin may be 5 and 50 times larger, respectively. ^c Committed dose equivalent to the thyroid from radioiodine.		

6.8.2.2 Public Evacuation

Responsibility for ordering protective actions by the public is legally the ultimate responsibility of local government. PG&E will act in an advisory capacity, giving technical assessments of the conditions at the plant and the probabilities for a potential off-site release as well as other pertinent information. This information, along with PG&E's recommended protective actions, will be assessed by responsible County officials in determining appropriate actions to be taken.

1) Evacuation Routes

Evacuation routes are dependent on the meteorological conditions at the time of the accident. The meteorological conditions at the ~~Diablo Canyon Power Plant~~DCPP site are very strongly influenced by the local topography. The Irish Hills which run approximately northwest-southeast redirect most onshore wind flows in these directions. The diurnal nature of the California coastal meteorology also has a strong influence by causing very frequent weak northerly and easterly offshore drainage winds during the night and early morning hours.

Because of the unusual meteorological characteristics of the ~~Diablo Canyon~~DCPP site, four predominant wind conditions will be used in discussing evacuation routes and procedures taken by outside agencies. These conditions are as follows:

- a) Northwest winds: These are predominantly daytime winds which occur during fair weather and frequently are very strong.

- b) Southeast winds: These winds generally are associated with storm conditions and early morning drainage flow. They increase in frequency during the wet winter months.
- c) Offshore northeast winds: These are predominantly night or early morning winds that are usually weak. Occasional strong offshore winds occur between winter storms where inland high pressure systems dominate the weather.
- d) Onshore southwest winds: These are the least prevalent winds at Diablo Canyon, occurring less than 5 percent of the time. Onshore winds are highly localized and seldom persist for more than an hour or two.

2) Evacuation Procedures

Evacuation of members of the general public is the responsibility of the County Emergency Organization, working in conjunction with the State Office of Emergency Services, and will be carried out in accordance with their prearranged plans. See the SLO County/Cities Nuclear Power Plant Emergency Response Plan for descriptive text and maps describing evacuation routes, evacuation areas, relocation centers and shelter areas. The general steps to be followed in the event an evacuation is required are as follows:

- a) Based upon plant conditions, on-site and off-site measurements, and meteorological data, the Sheriff's Department will be instructed by the County Emergency Services Director to take protective actions which may include selected or full evacuation. The area to be evacuated, the evacuation routes, and shelter locations will also be agreed upon by the County Emergency Organization Command Group. The Site Emergency Coordinator, or Advisor to the County after EOF activation, will keep the County informed of pertinent information regarding the Company's evaluation of existing conditions.
- b) The Sheriff's Department, assisted by other response agencies, is to carry out the evacuation in accordance with established Standard Operating Procedures (SOPs).
- c) Re-entry into the evacuated areas is to be prevented until it is determined that radiological conditions will permit unrestricted access.

3) Evacuation Time Estimates (ETE)

Studies conducted by traffic engineering and planning specialists provide information on various evacuation scenarios that could take place as a result of evacuation of the Emergency Planning Zone. The estimated time to evacuate the EPZ under varying conditions, the estimated peak population and evacuation time estimates by region are included in Appendix E. The ETE results were used to inform DCPD protective action recommendations described in Appendix G.

The scenario assumptions, development and conditions leading to the evacuation time estimates have been made available to State and County officials for use in their preparation of emergency response planning documents.

Protective actions to be ordered by County authorities are summarized in the SLO County/Cities Nuclear Power Plant Emergency Response Plan. PG&E cooperates with County and State officials to ensure the County Plan reflects appropriate guidelines on how the evacuation time estimates will ultimately be used to determine the protective actions to be taken off-site.

6.8.3 Off-Site Contamination Control Measures

The responsibility for ordering and conducting off-site contamination control actions rests with the SLO County Emergency Organization. However, PG&E is prepared to work with SLO County and other participating governmental agencies to formulate and implement an appropriate program, if required.

6.8.4 Emergency Personnel Exposure

During an emergency, circumstances may dictate personnel receive exposures in excess of the 10 CFR 20 limits. Some examples of the circumstances would be lifesaving actions or other assessment or corrective actions that would serve to mitigate the consequences of the emergency.

During an emergency and prior to arrival of the Emergency Director, the Shift ~~Supervisor~~Manager and Site Emergency Coordinator can authorize emergency exposure in excess of 10 CFR 20 limits. These emergency exposure limits are described in EPA 400. The Emergency Director assumes this responsibility at the EOF upon command and control turnover. Emergency workers may receive doses as indicated below.

Guidance on Dose Limits for Workers Performing Emergency Services (Reference EPA 400-R-92-001)		
Dose Limit ^a (rem)	Activity	Condition
5	all	
10	Protecting valuable property	Lower dose not practicable
25	Lifesaving or protection of large populations	Lower dose not practicable
>25	Lifesaving or protection of large populations	Only on a voluntary basis to persons fully aware of the risks involved (See Tables 2-3 and 2-4 of EPA 400)
^a Sum of external effective dose equivalent and committed effective dose equivalent to non-pregnant adults from exposure and intake during an emergency situation. Workers performing services during emergencies should limit dose to the lens of the eye to three times the listed value and doses to any other organ (including skin and body extremities) to ten times the listed value. These limits apply to all doses from an incident, except those received in unrestricted areas as members of the public during the immediate phase of the incident (see Chapters 3 and 4 of EPA 400).		

6.8.5 Decontamination

A decontamination shower is located near the RCA Access Control area of the Auxiliary Building. Two off-site decontamination showers are located at the Energy Education Center. Supplies include solid waste disposal supplies for contaminated clothing, personnel decontamination supplies, replacement clothing, and other related miscellaneous items.

All radiation protection personnel are trained in decontamination techniques as part of their radiation protection training. Operations personnel receive training in basic decontamination techniques for tools, equipment, and personnel as part of Radiation Worker Training.

6.8.6 Medical Transportation

Arrangements for medical transportation are discussed in [Sections 5 and 7](#).

6.8.7 Medical Treatment

The company maintains a medical support contract and agreements with ambulances throughout its service area. French Hospital in San Luis Obispo, San Luis Ambulance, Cambria Health Care District, and Marian Medical Center in Santa Maria have agreements with the Company for handling accidents involving radioactive contamination. There are also several medical care facilities with public access in the area for the treatment of non-radiological injuries.

The Radiation Emergency Assistance Center/Training Site (REAC/TS) is also available for consultation and response to radiation related injuries. REAC/TS provides this expertise through the Department of Energy for the nuclear industry.

6.8.7.1 Physicians, Ambulances, and Hospitals Serving the Immediate Area around Diablo Canyon

Ambulances	
Name	Remarks
San Luis Ambulance Service	Radiation Exposure Patients
Cambria Health Care District	Radiation Exposure Patients

Hospitals	
Name	Remarks
French Hospital	Radiation Exposure Patients - External Defibrillation Equipped
Marian Hospital	Radiation Exposure Patients

Physicians	
Name	Remarks
Area Medical Care Facilities	Industrial Injury Treatment
Hospitals	Industrial Injury Treatment
REAC/TS	Medical/Radiation Consultant

6.9 CROSS REFERENCE TO NUREG-0654

NUREG-0654	DCPP Emergency Plan	NUREG-0654	DCPP Emergency Plan
A.1.e	6.3	J4	6.7.3
B.2	6.8.2.1	J5	6.7.2
B.6	6.1, 6.1.3, 6.3, 6.4	J.6.a	6.7.4.1
E.2	6.1, 6.1.1, 6.3, 6.4	J.6.b	6.7.4.2
E3	6.4	J.6.c	6.7.4.3
E7	6.4	J7	6.1, 6.5.3, 6.8.1, 6.8.2
F.1.e	6.1, 6.1.1, 6.3, 6.4	J8	6.8.2.23)
H.4	6.1.2, 6.3, 6.4	J.10.a	6.8.2
H.11	6.7.5, 6.8.5	J.10.b	Appendix E
I.2	6.1.1, 6.6	J.10.c	6.8.1
I.3.a	6.1.1	J.10.m	6.8.2.1, Appendix G
I.3.b	6.5.3, 6.6	K.1.a to g	6.8.4
I.4	6.6.2	K.2	6.8.4
I.6	6.6.3	K.3.a and b	6.7.4.4
I.7	6.6.5, 6.6.6	K.5.a and b	6.7.5, 6.8.5, 6.8.7
I.8	6.6.2, 6.6.2.1, 6.6.2.2	K.6.a to c	6.7.5
I.9	6.6.4, 6.6.5, 6.6.6	K.7	6.7.5, 6.8.5, 6.8.7
I.10	6.5.3, 6.6, 6.1, 6.6.2	L.1	6.8.7
J.1.a to d	6.2, 6.7.1	P.7	Appendix A
J2	6.7.3	P.8	6.9
J3	6.7.3.4		

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7. EMERGENCY FACILITIES AND EQUIPMENT

If corrective measures are to be promptly initiated in an emergency situation, it is important required emergency equipment and facilities be readily available. To the maximum extent possible, normal plant equipment and controls will be used to mitigate the consequences of an accident. In some instances, special emergency equipment and facilities have been provided. This section describes this special equipment in conjunction with normal plant equipment that has particular application in an emergency.

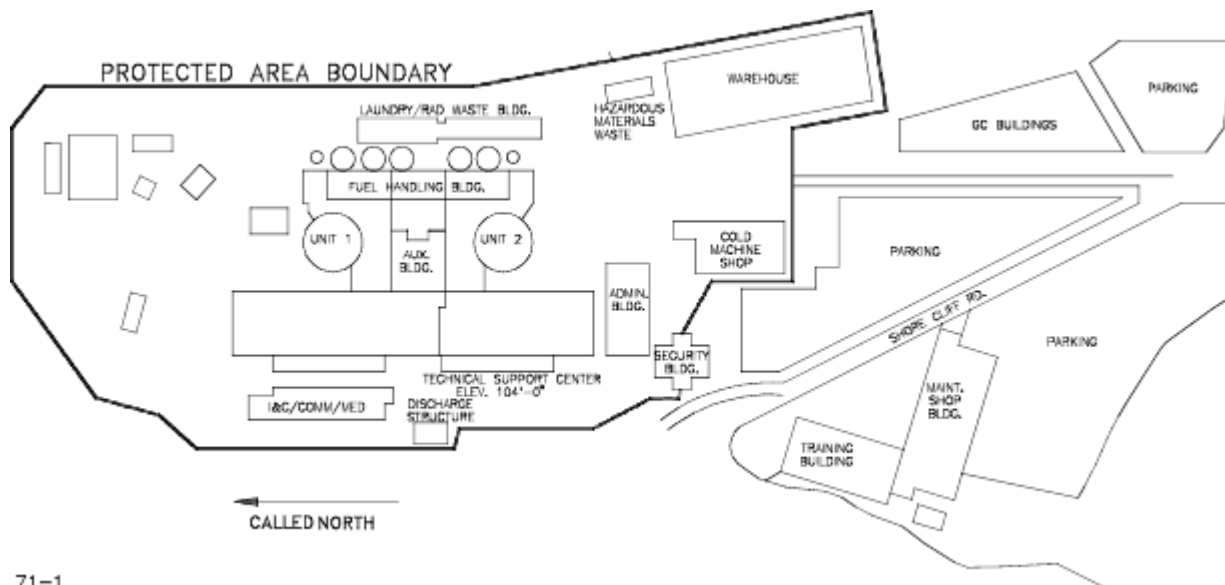
The Emergency Plan provides for a number of on-site and off-site facilities intended for use as accident management centers, and personnel staging and planning areas. These facilities are discussed briefly in the following paragraphs.

7.1 EMERGENCY RESPONSE FACILITIES

7.1.1 Control Room

7.1.1.1 Location and Description

The Control Room is common to Units 1 and 2 and is located at the 140' elevation of the Auxiliary Building as shown below. The Shift ~~Supervisor~~ ~~Manager~~'s office is located adjacent to the Control Room. The Control Room has lavatory and kitchen facilities.



7.1.1.2 Emergency Function

Prior to the time the Technical Support Center (TSC) is activated (and throughout the course of an emergency in which the TSC is not activated) the Control Room will serve as the headquarters for the Site Emergency Coordinator. All on-site activities are directed from this location, and all communication with off-site agencies will originate from the Control Room. The Control Room has the necessary equipment and instruments to perform accident assessment work involving possible or actual radiological releases and fuel barrier damage.

Following activation, overall control of on-site activities will be transferred to the TSC or EOF. ~~If the TSC is activated before the EOF, then the TSC will assume responsibilities for communications with off-site agencies until relieved by the EOF.~~ The Control Room will then be headquarters of the on-site Operations Coordinator, and the major Control Room activity will be operation of plant equipment to mitigate the consequences of the emergency.

The Control Room also serves as the backup to the TSC should the latter be unavailable.

7.1.1.3 Habitability Objectives

The Control Room is designed to be habitable throughout the course of a design-basis accident, although no credit is taken for the shielding or ventilation features in the design basis accident calculation. ~~The Control Room shielding and ventilation system is designed to limit post accident doses to 5 rem TEDE for the duration of the accident.~~

~~The Control Room is provided with a Design Class I Criteria Ventilation System. The design of the system includes provisions for:~~

- ~~1) Protection from smoke generated inside or outside the Control Room area.~~
- ~~2) Protection from airborne radioactivity outside the Control Room and provisions for cleanup of activity trapped in the room.~~
- ~~3) Protection from airborne toxic gas outside the Control Room.~~
- ~~4) Provisions for limiting carbon dioxide buildup inside the Control Room during periods when airborne contaminants prevent use of outside makeup air.~~

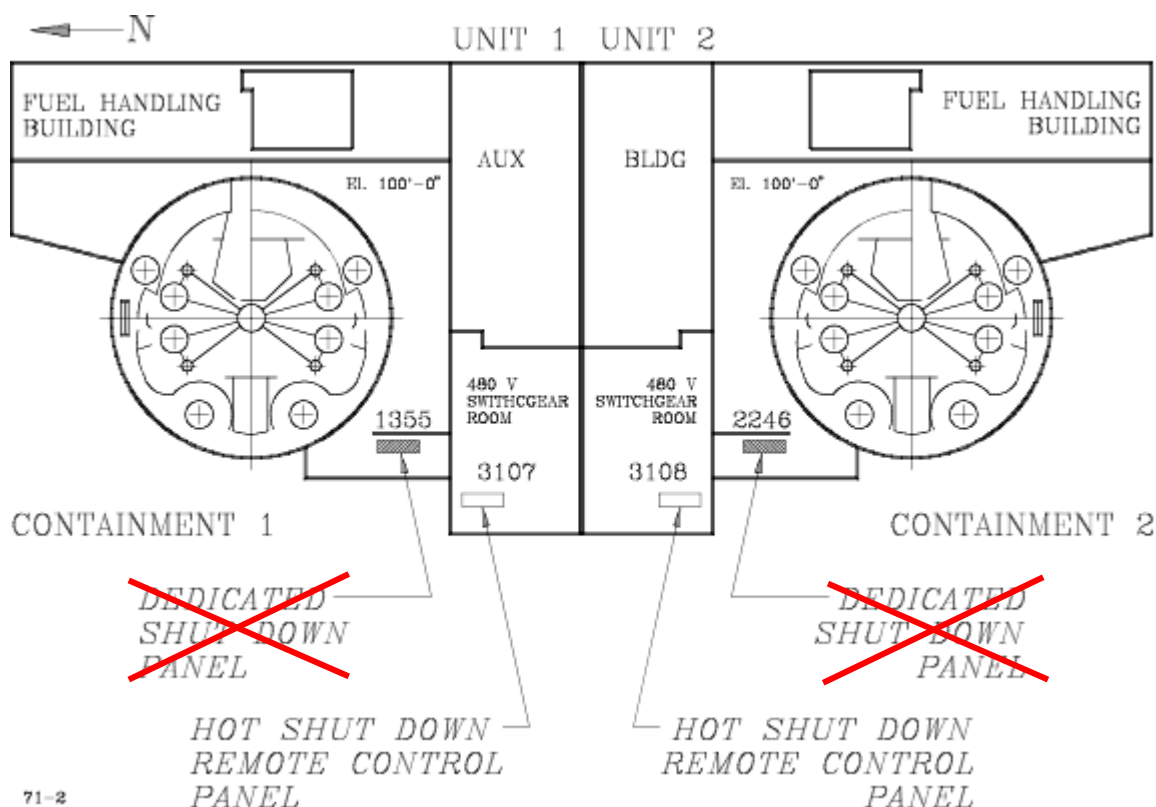
7.1.1.4 Special Equipment

The Control Room is the most completely equipped location in the plant in terms of provisions to monitor the status of plant systems and equipment. The Control Room has complete communication capability; as well as access to meteorological, seismic, and radiological monitoring data.

7.1.2 Hot Shutdown Panel

7.1.2.1 Location and Description

Each unit is provided with a hot shutdown panel located in the Auxiliary Building at the 100' elevation as shown below. Each hot shutdown panel is a single control panel with two sub-panels.



7.1.2.2 Emergency Function

The hot shutdown panel contains the essential indicator and controls to maintain a unit in hot-standby-safe condition for an extended time period. The hot shutdown panel is primarily intended to be used for a situation in which smoke or toxic gas makes the Control Room temporarily uninhabitable. In such a circumstance, ~~the operators are instructed to trip the reactor as they leave the Control Room and proceed to the hot shutdown panel. From this location,~~ the unit can safely be maintained in the hot-standby-safe condition until the Control Room can be reentered.

Any occurrence requiring the use of the hot shutdown panel would also involve activation of the TSC. Overall emergency response actions, including off-site communications, would be handled from the TSC, where the Site Emergency Coordinator would establish his headquarters. ~~A licensed operator would be stationed at the hot shutdown panel.~~

7.1.2.3 Habitability Objectives

The hot shutdown panels are not intended for use in radiological release type accidents. They are open to the room atmosphere in the "clean" (radiologically) portion of the Auxiliary Building. No special provisions have been made to assure habitability during radiological release emergencies.

7.1.2.4 Special Equipment

Hot Shutdown Panel Instrumentation and Controls are listed below. Each panel has a telephone and an emergency UHF radio for operations frequency.

Auxiliary Feedwater	
1. ~~AFW Pump discharge pressure~~	8. ~~Turbine Driven AFW Pump steam supply valve control switch~~
2. ~~AFW flow indication~~	
3. ~~Turbine Driven AFW Pump Control Valve transfer switch~~	9. ~~Turbine Driven AFW Pump steam supply valve transfer switch~~
4. ~~Turbine Driven AFW Pump Control Valve control switch~~	10. ~~Turbine Driven AFW Pump steam supply valve position indication~~
5. ~~Turbine Driven AFW Pump Control Valve position indicator~~	11. ~~Motor Driven AFW Pump control switch~~
6. ~~Motor Driven AFW Pump Control Valve controller~~	12. ~~Motor Driven AFW Pump mode selector switch~~
7. ~~Motor Driven AFW Pump Control Valve position indicator~~	13. ~~Motor Driven AFW Pump START/STOP/LOCAL indicator~~
Auxiliary Saltwater	
1. Auxiliary Saltwater Pump control switch	
2. Auxiliary Saltwater Pump mode selector switch	
3. Auxiliary Saltwater Pump START/STOP/LOCAL status	
Chemical and Volume Control System	
1. ~~Centrifugal Charging Pump control switch~~	15. ~~Emergency borate valve control switch~~
2. ~~Centrifugal Charging Pump mode selector switch~~	16. ~~Emergency borate valve position indicator~~
3. ~~Centrifugal Charging Pump START/STOP/LOCAL indicator~~	17. ~~Emergency boric acid flow indicator~~
4. ~~Boric Acid Transfer Pump transfer~~	18. ~~Volume Control Tank level indicator~~
5. ~~Boric Acid Transfer Pump control switch~~	19. ~~Letdown flow indicator~~
6. ~~Boric Acid Transfer Pump ON/OFF indicator~~	20. ~~Charging header flow indicator~~
7. ~~Reactor Coolant Pump seal injection back pressure control valve controller~~	21. ~~Charging header pressure indicator~~
8. ~~Centrifugal Charging Pump flow control valve controller~~	22. ~~Reactor Coolant Pump Seal No. 1 pressure indicator~~
9. ~~Reactor Coolant Pump seal injection back pressure control valve position indicator~~	23. ~~Cold leg loop charging motor operated valve 8107~~
10. ~~Centrifugal Charging Pump flow control valve position indicator~~	24. ~~Cold leg loop charging motor operated valve 8108~~
11. ~~Letdown Valve transfer switch~~	25. ~~Charging to loop 4 cold leg air operated valve 8146~~
12. ~~Letdown Valve control switch~~	26. ~~Refueling water supply to charging pump suction header valve 8805A pressure indicator~~
13. ~~Letdown Valve position indicator~~	
14. ~~Emergency borate valve transfer switch~~	

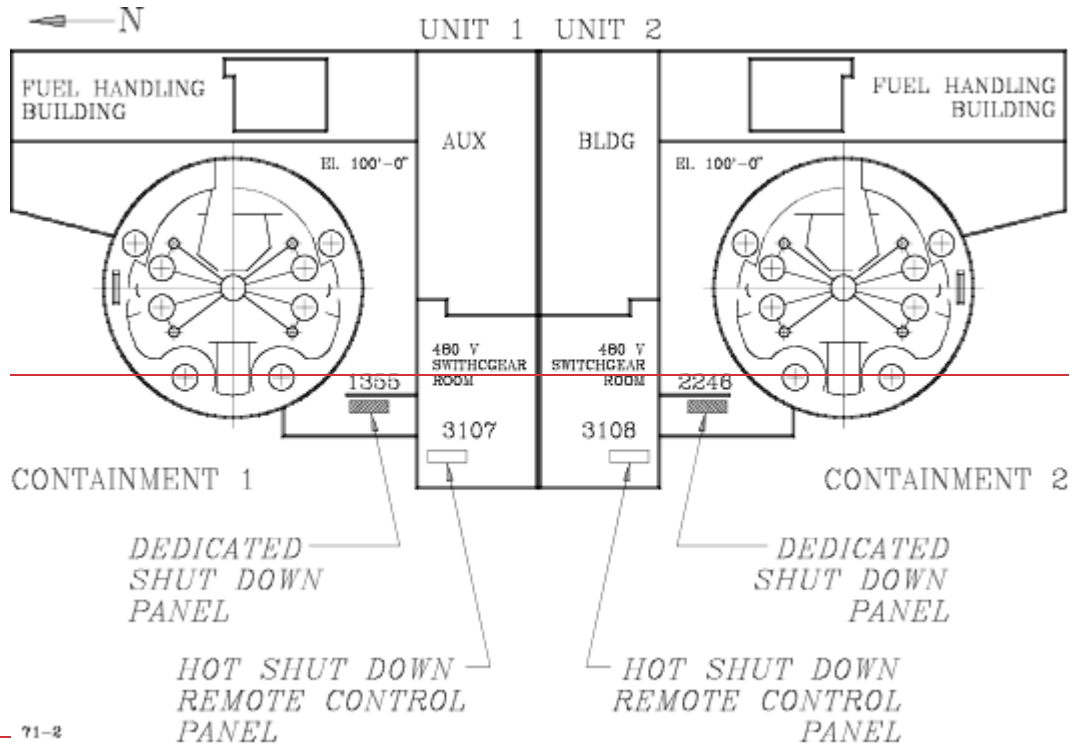
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Component Cooling Water	
- Component Cooling Water Pump control switch - Component Cooling Water Pump mode selector switch - Component Cooling Water Pump START/STOP/LOCAL status	
~~Containment Fan Coolers~~	
~~Containment Fan Cooler transfer switch~~ ~~Containment Fan Cooler control switch~~ ~~Containment Fan Cooler ON/OFF status~~	
Makeup Water	
- Condensate Storage Tank level indicator - Raw Water Reservoir level indicator	
~~Reactor Coolant System~~	
~~Pressurizer liquid temperature indicator~~ ~~Pressurizer pressure indicator~~ ~~Pressurizer level indicator (2)~~ ~~Pressurizer heater transfer switch (2)~~ ~~Pressurizer heater control switch (2)~~ ~~Pressurizer heater breaker position indicator (2)~~	
~~Pressurizer Power Operated Relief Valve emergency close switch~~ ~~Hot Leg loop 4 pressure indicator~~ ~~Hot Leg loop 4 wide range temperature indicator~~ ~~Cold Leg loop 4 wide range temperature indicator~~	
~~Steam Generators~~	
~~Pressure indicator~~ ~~Level indicator~~ ~~Steam dump valve controller~~ ~~Steam dump valve position indication~~	
Other	
~~Source Range neutron flux indicator (2)~~ - Site emergency alarm switch 4kV vital bus voltage indicator	

7.1.3 — Dedicated Shutdown Panel

7.1.3.1 — Location

~~Each unit is provided with a dedicated shutdown panel located in the 100' elevation of the Auxiliary Building, as shown below.~~



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7.1.3.2 Emergency Function

~~The dedicated shutdown panel in conjunction with the Hot Shutdown Panel is used if the unit must be taken from the hot shutdown condition to the cold shutdown condition from outside the Control Room. The dedicated shutdown panel contains sufficient instrumentation to follow and direct the cooldown operation and has controls for the pressurizer auxiliary spray control valve operation. The actual manipulation of other controls and valves would be done by operators at appropriate local stations.~~

~~Any occurrence requiring the use of the dedicated shutdown panel would also involve activating the TSC. Overall recovery actions, including off-site communications, would be handled from the TSC, where the Site Emergency Coordinator would establish his headquarters. An operator would be stationed at the dedicated shutdown panel.~~

7.1.3.3 Habitability Objectives

~~The dedicated shutdown panels are not intended for use in radiological release type accidents. They are open to room atmosphere. No special provisions have been made to assure habitability during radiological emergencies.~~

7.1.3.4 Special Equipment

~~Instruments found on each dedicated shutdown panel are listed below. PG&E phone jacks are located near each panel. Portable, hand held radio units may also be used for communications if required.~~

~~Steam Generators~~	
~~1. Level indicator (each steam generator)~~	
~~Reactor Coolant System~~	~~3. RCS Loop 4 pressure indicator~~
~~1. Temperature indicator-- RCS Loop 4~~	~~4. Pressurizer level indicator~~
~~2. RCS Loop 1 Temperature selector switch~~	
~~Chemical and Volume Control System~~	
~~1. Auxiliary spray valve transfer switch~~	
~~2. Auxiliary spray valve control switch~~	

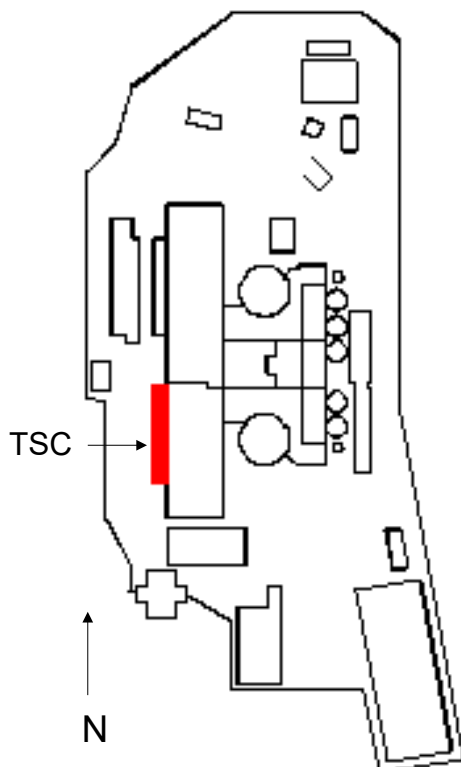
7.1.47.1.3 Technical Support Center (TSC)

7.1.47.1.3.1 Location and Description

The purpose of the TSC is to provide a facility separate from but in close proximity to the Control Room. The TSC has the capability to display and transmit plant status to personnel responsible for engineering and management support of ~~reactor~~SFP operations in the event of an accident. This separate facility is needed to house data gathering equipment and the personnel required to assist in an emergency, primarily to reduce Control Room congestion.

The TSC serves both Units 1 and 2 and consists of six rooms. The TSC is sized to accommodate a minimum of 20 company and 5 NRC personnel. It is located at elevation 104' on the west side of the Unit 2 Turbine Building. It occupies space created as a result of the exterior concrete buttress seismic modification of the turbine building. The thickness of the concrete walls required to enclose the TSC were largely dictated by radiation shielding considerations and the structure is designed to the Hosgri seismic criteria.

The figure below shows the location of the TSC within the plant.



The room layout and description from North to South is:

1) Command Center

Desks, files and conference table provided for plant operations management, maintenance and technical staff personnel.

2) Operations Center

Plant parameter data gathering and display equipment is provided for the use of technical staff in assessing the plant condition. The Emergency Response Facility Data System (ERFDS) is located in this room.

3) Computation Center

Radiological and meteorological data gathering and display equipment and communications equipment is provided for the use of technical staff in assessing radiological conditions on and off-site.

4) Records Management and Reproduction

Plant manuals, emergency plans and procedures, access to microfilm drawings and other records, and certain hard copy drawings are provided.

5) HVAC Room

Heating and, ventilation, ~~and air conditioning~~ equipment for the TSC is located in this room.

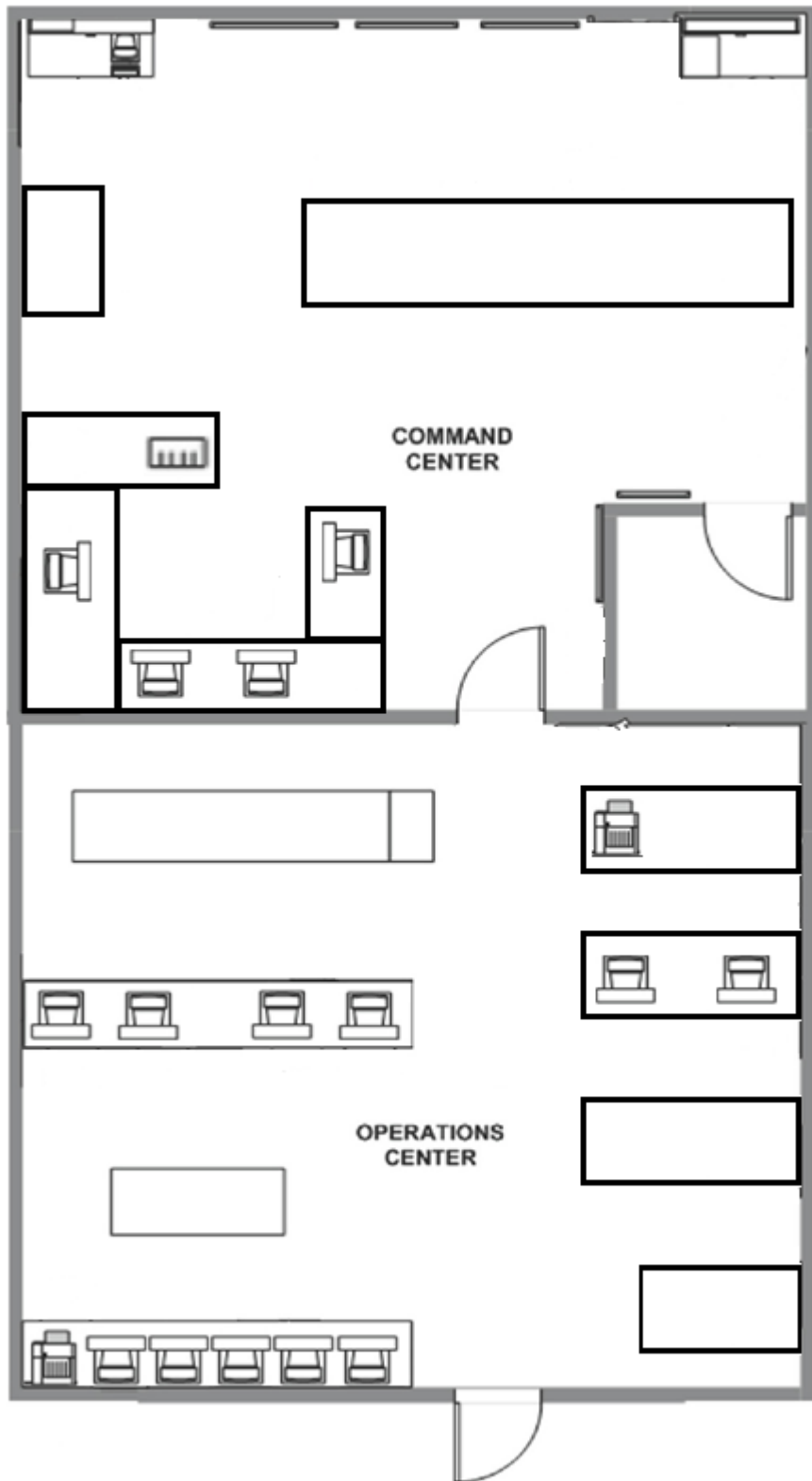
6) Laboratory (Radiological Counting Room)

In a room adjacent to the TSC, radiological laboratory equipment for analysis of samples is provided.

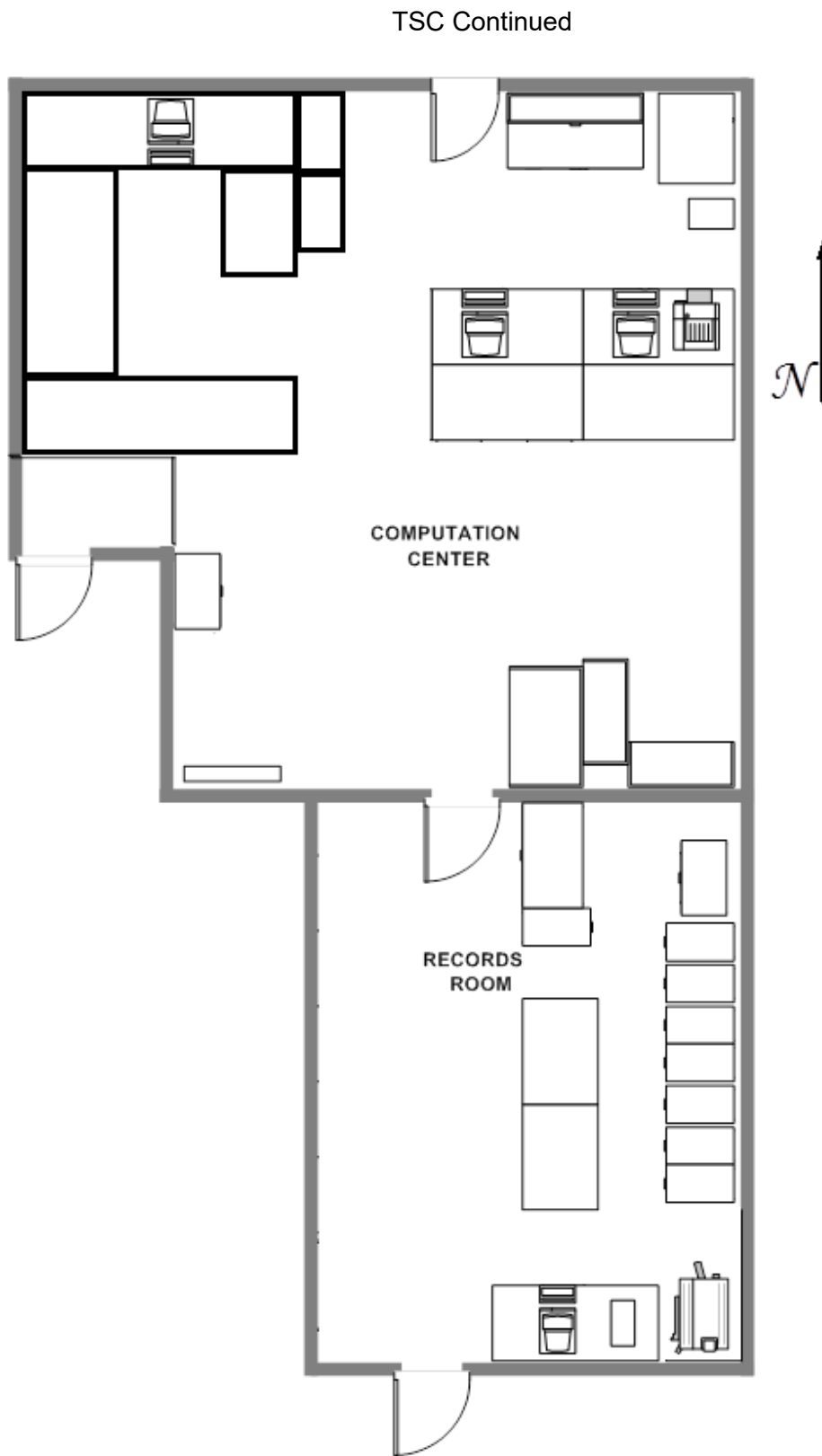
The radiological counting room is intended to be a backup location for this type of work in the event the normal counting room is unavailable.

It is equipped with a multi-channel gamma ray spectroscopy system using a high-resolution intrinsic germanium detector.

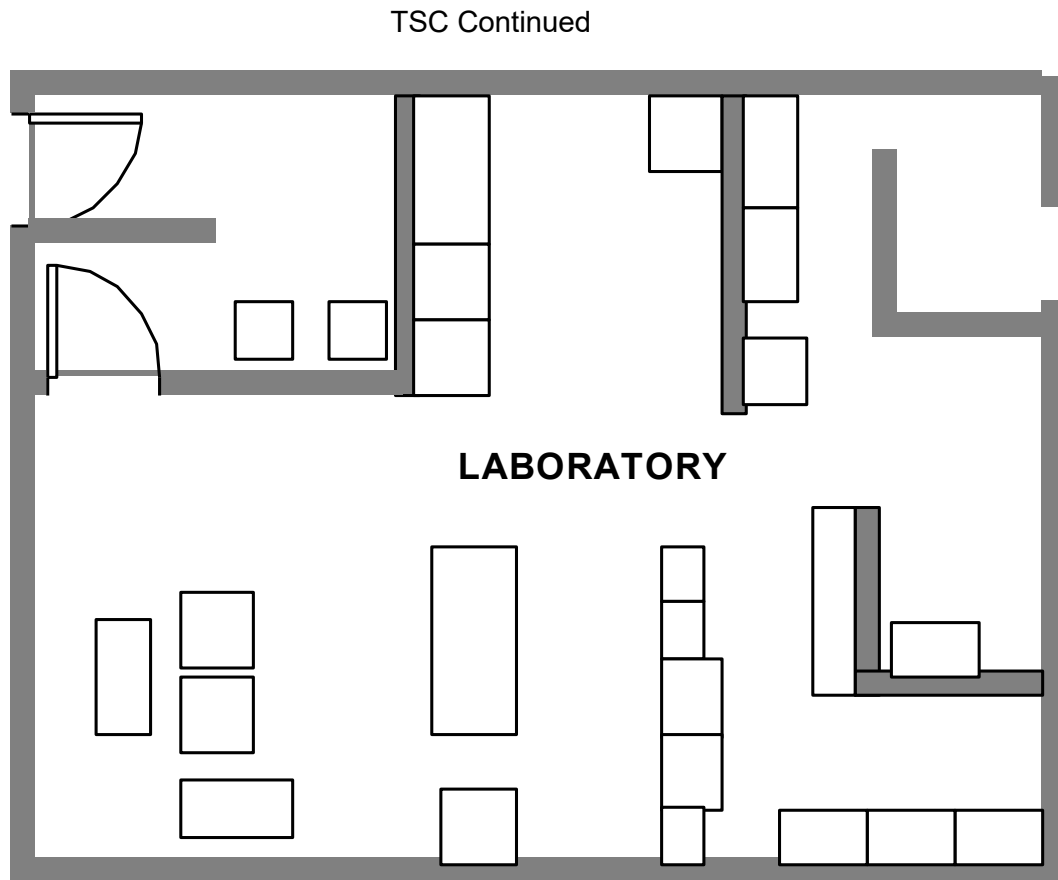
The following figures show the general floor plan of the TSC.



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7.1.4.27.1.3.2 Emergency Function

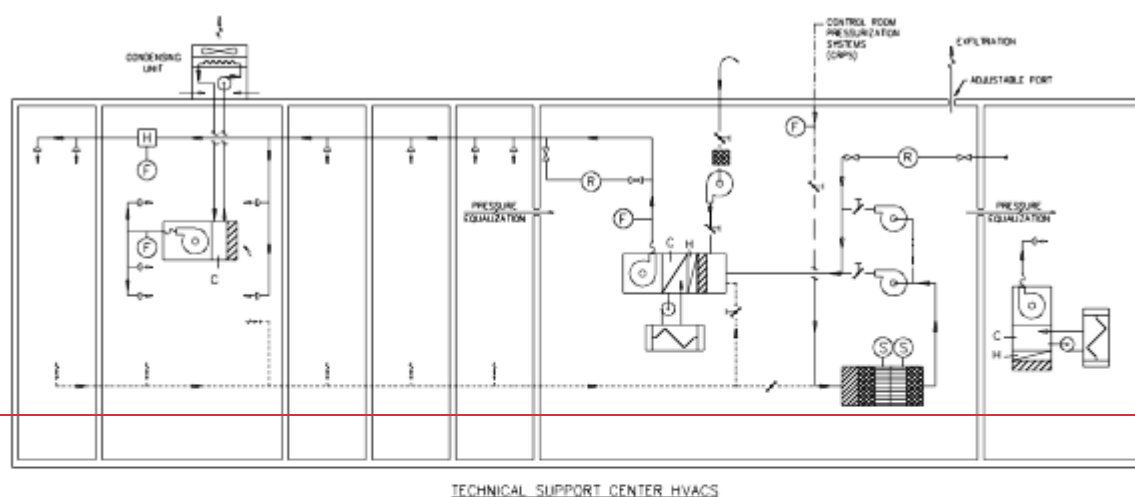
The TSC when activated serves as the headquarters for the Site Emergency Coordinator, Operations Advisor, Radiological Advisor, ~~Agency~~ENS Communicator, and Engineering Advisor and their staffs throughout an emergency. Provisions have also been made for the establishment of an on-site NRC emergency team co-located in the TSC.

Following activation of the TSC, the overall on-site assessment and recovery programs may be directed from this location. In addition, communications with off-site emergency response locations may be handled through the TSC.

7.1.4.37.1.3.3 Habitability Objectives

The TSC is designed to be habitable throughout the course of a design basis accident, although no credit is taken for the shielding or ventilation features in the design basis accident calculation. The outside walls, with steel bulkhead doors, form an airtight perimeter. The TSC shielding and ventilation system is designed, consistent with the criteria for the Control Room, to limit post-accident doses inside the TSC to 5 rem TEDE for the duration of the accident, provided normal ventilation is switched to emergency ventilation within 2 hours of the onset of a radiological release from a design basis accident. The TSC structure is designed to Hosgri seismic criteria.

The TSC is provided with its own ventilation system. The ventilation system is shown below.



LEGEND

ROUGHING FILTER	FLOW SWITCH (DIFFERENTIAL PRESSURE SWITCH)
HEPA FILTER	COOLING COIL
CHARCOAL FILTER	FAN
RADIATION DETECTOR	MANUAL OPERATED DAMPER
HEATING COIL	SMOKE DETECTOR

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Under accident conditions, the supply to the TSC is transferred to the Control Room pressurization system that maintains the TSC at a minimum positive pressure of 1/8" water gage. Intake air is conditioned and internally re-circulated through High Efficiency Particulate Air (HEPA) and charcoal filters within the TSC. The pressurization air filtrates from the TSC to the outside atmosphere. The pressurization portion of the ventilation system, including the duct work, redundant ventilation fans and filter units for the TSC, are designed to Seismic Class I criteria. The fans are powered from 480-volt non-vital buses but can be transferred to a 480-volt vital bus on either unit. The air conditioning units are not designed as seismic structures and are powered from normal AC sources.

The TSC intake air is monitored by GM Detectors with alarm and control capabilities as part of the Control Room ventilation system. It also has area, particulate, iodine, and noble gas monitors with alarm capabilities, which may be backed up by portable equipment. The TSC is also provided with self-contained breathing apparatus and protective clothing for use in an emergency.

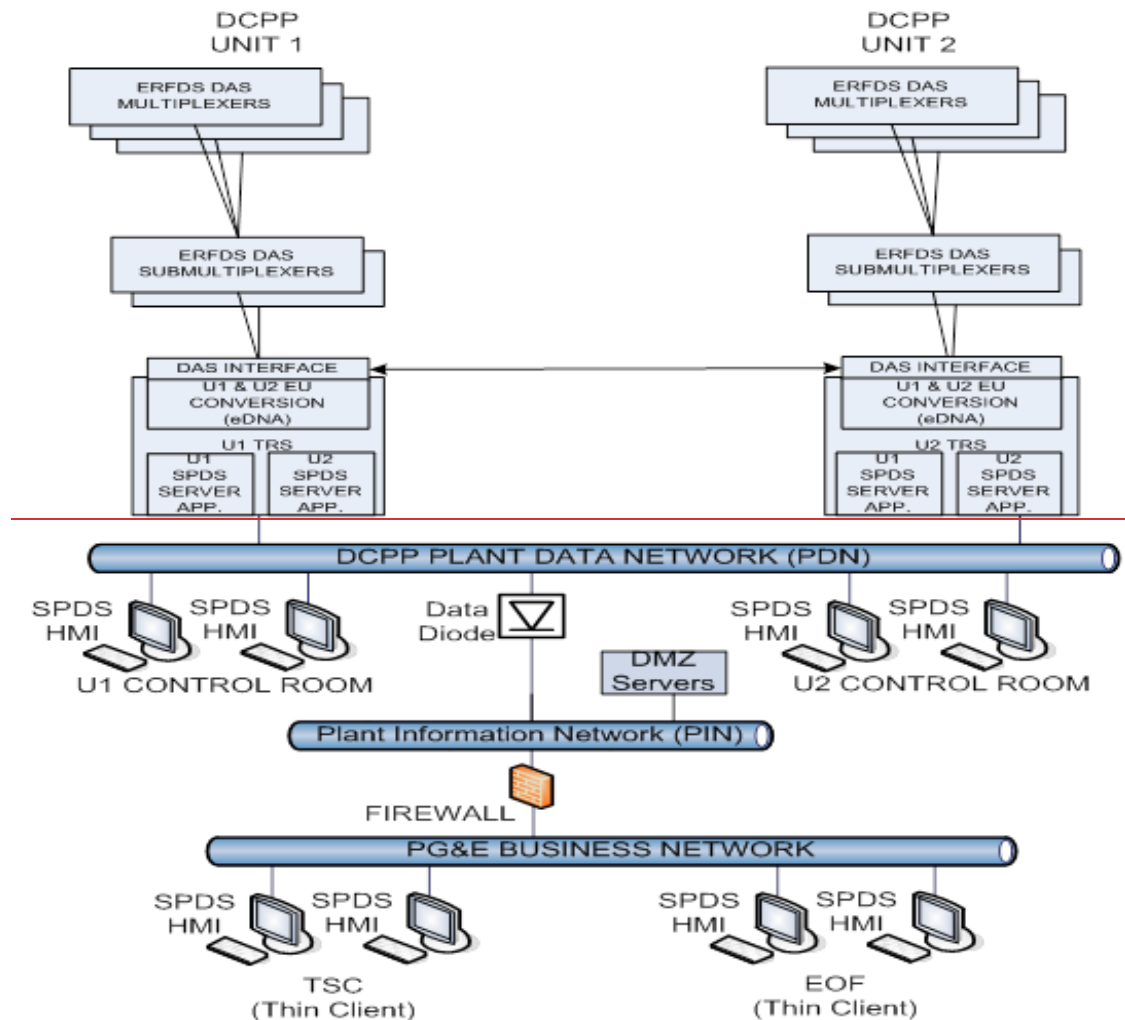
7.1.4.4 Special Equipment

1) Safety Parameter Display System (SPDS)

The SPDS was designed to the guidelines specified in NUREG-0696 and NUREG-0737 Supp. 1. It is part of the Emergency Response Facility Data System (ERFDS).

The SPDS for each unit is a computer-based system consisting of a data acquisition system, server computers, and display computers.

There are two high-resolution color SPDS monitors in the TSC. The displays available for the monitors allow TSC personnel to view plant parameters in real time ("SPDS display"), primary and secondary system mimics, and decision trees.



~~2) Emergency Response Data System (ERDS)~~

~~The Emergency Response Data System is a direct near real-time electronic data link between a DCPD installed plant computer system and the Nuclear Regulatory Commission's Operations Center and Regional Office. This system provides for the automated transmission of a limited set of selected parameters and supplements the existing voice transmission over the NRC Virtual Private Network (VPN). Activation of this system occurs at an Alert or higher emergency classification.~~

~~3)1) Communication~~

The TSC is provided with full radio and telephone communications capability.

~~4)2) Radiological Analysis~~

The TSC contains radiological laboratory equipment. The TSC is also tied into the emergency radiological monitoring network.

~~5)3) Plant Process Computer~~

The TSC is provided with a display terminal and a printer for each unit's Plant Process Computer (PPC). This provides the ability to monitor and print plant parameters acquired by the PPC.

~~6)4) Transient Recording System~~

The Emergency Response Facility Data System (ERFDS) recall functionality is provided by the main plant historian hosted on the DMZ servers. The ERFDS data is available on at least two (2) display computers in the TSC.

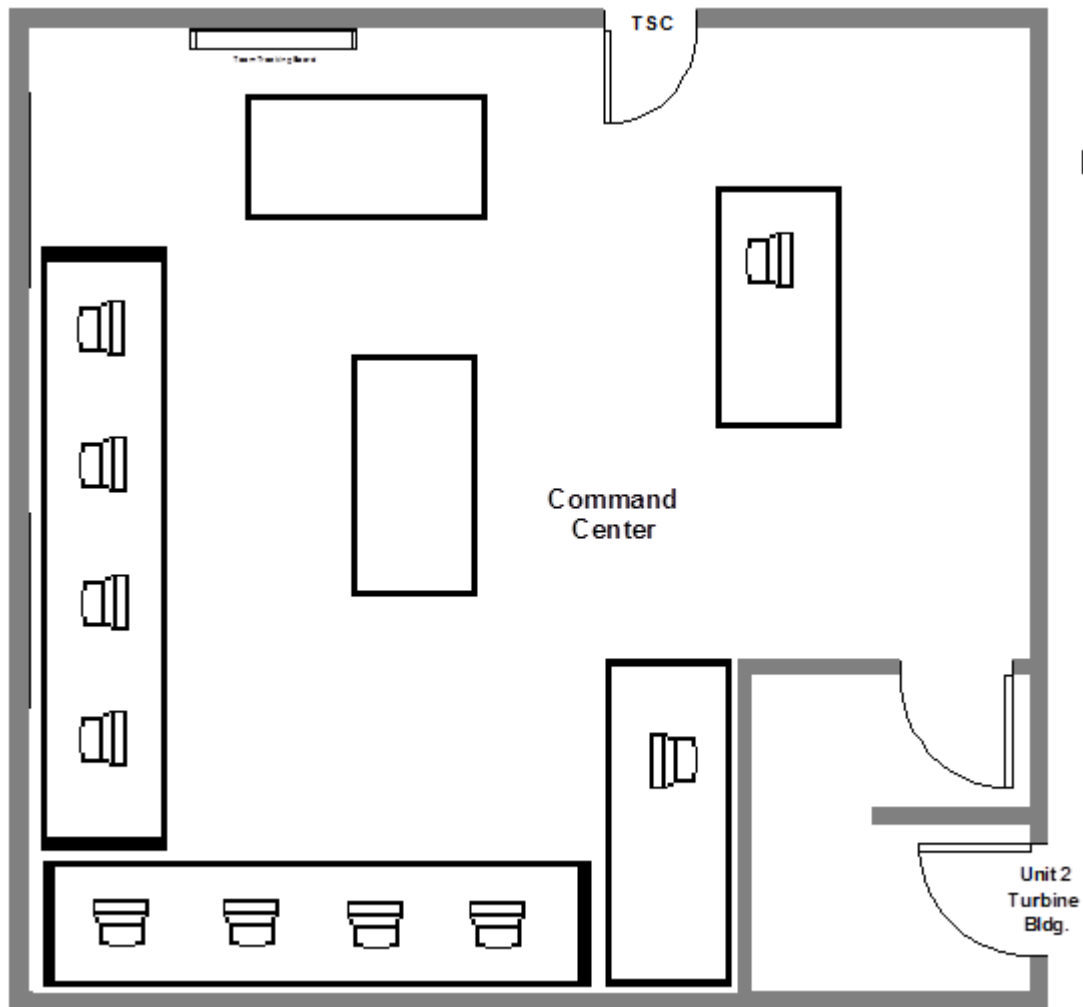
7.1.57.1.4 Operational Support Center

7.1.5.17.1.4.1 Location and Description

The ~~Operational Support Center (OSC)~~ provides locations functionally 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 on 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, and/or the firefighters equipment storage area on the 140' elevation. OSC assembly areas serve as team dispatch locations and contain a variety of emergency support equipment immediately available for emergency use. The OSC command center is equipped with a two-way auto ring-down phone line with priority access to other facilities. Alternate backup locations for the OSC command center include:

- Elevation 140' Turbine Building northeast corner
- Administration Building (Room 215)

The general floor plan of the OSC command center is shown below.



7.1.5-27.1.4.2 Emergency Functions

Provides a location for staging and dispatching trained emergency workers for assignment to:

- Emergency maintenance, repair, and damage control.
- Firefighting, search and rescue, and first aid.
- Emergency sampling of plant fluids.

The OSC also functions as locations of selected emergency response equipment and provide facilities for personnel decontamination.

The OSC is intended to eliminate congestion in the Control Room and TSC. This area has a supervisor assigned in the emergency organization.

7.1.5.37.1.4.3 Habitability Objectives

The OSC command and assembly areas are not required to have special provisions for minimizing radiation exposure. Consequently, personnel in these areas may be evacuated under certain emergency situations. If evacuation were necessary, personnel required for emergency response would be relocated to another area. Personnel not immediately essential to the on-site response may be assembled in the Learning Services Building or released.

7.1.5.47.1.4.4 Emergency Equipment and Supplies

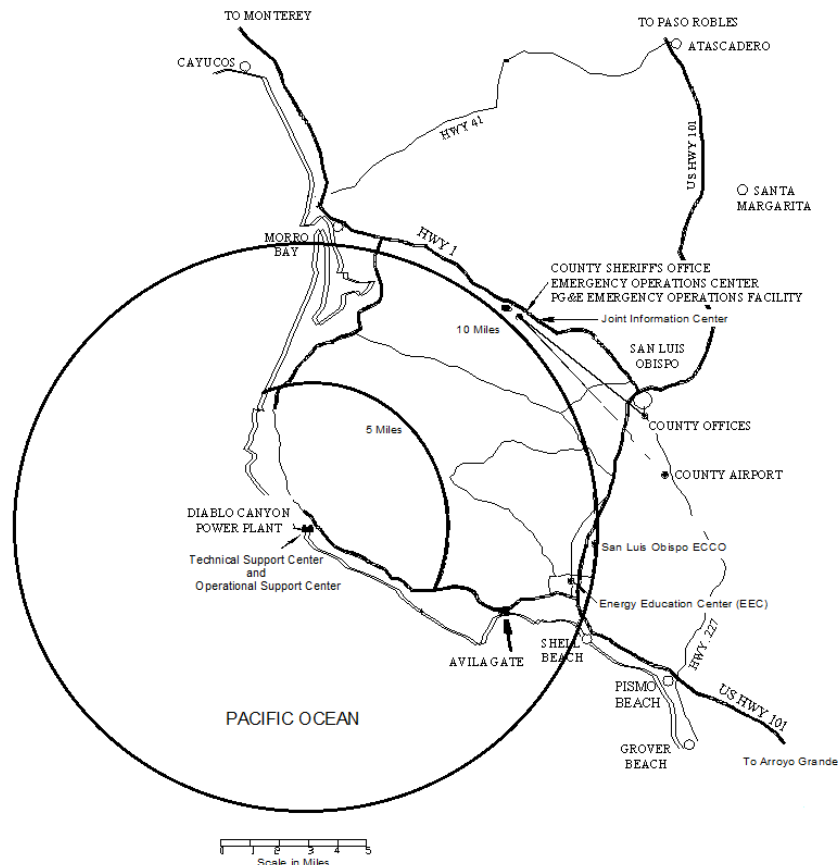
The OSC command center has a two-way auto ring-down phone line with priority access to the TSC and Control Room and has a PBX telephone with emergency facility priority access to commercial telephone circuits. In addition, there is access to portable radio equipment.

The OSC has ample supplies of respiratory protection equipment, protective clothing, monitoring instruments and other emergency response equipment.

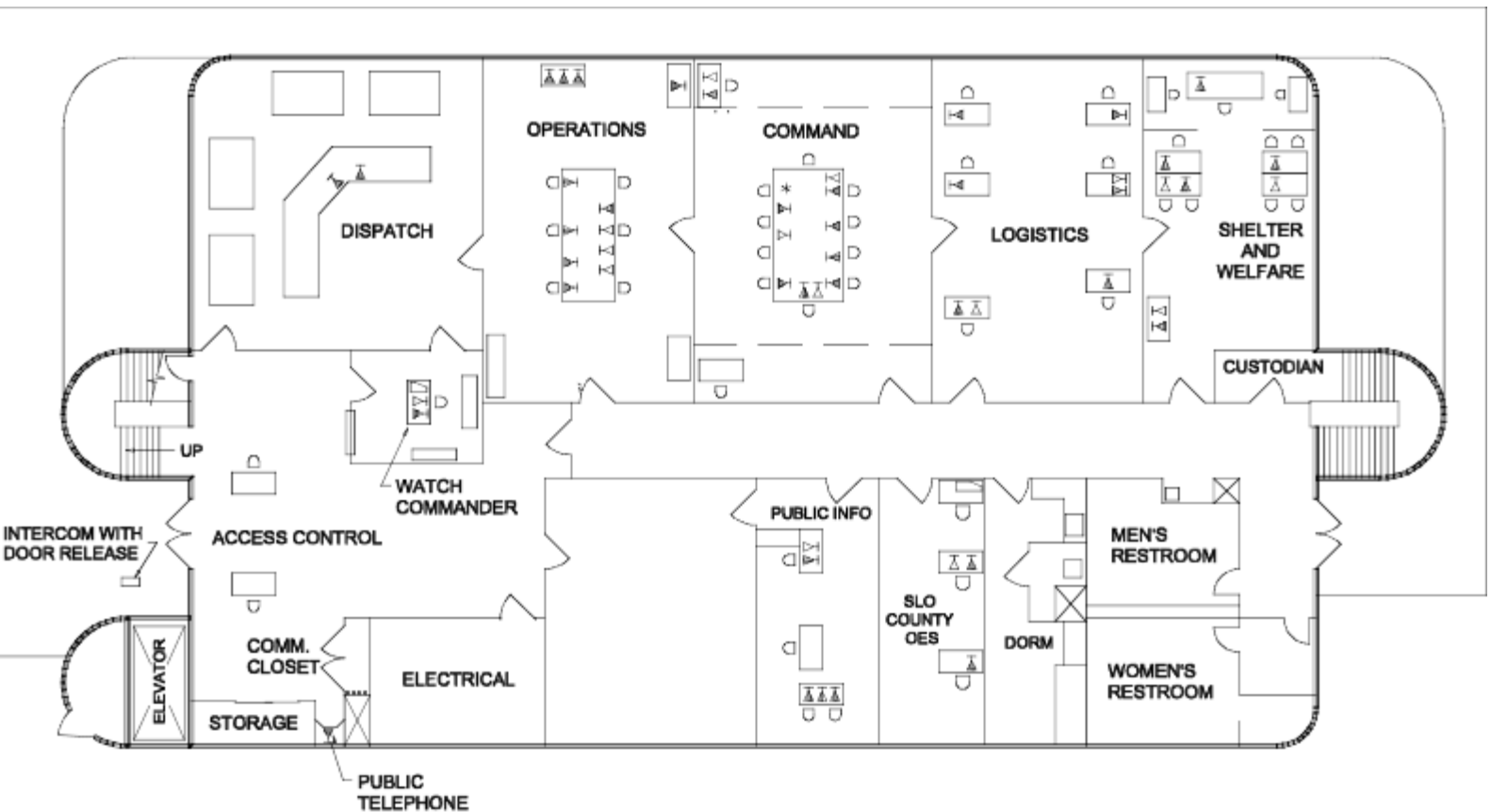
7.1.67.1.5 Emergency Operations Facility

7.1.6.47.1.5.1 Location and Description

The ~~Emergency Operations Facility (EOF)~~ and County ~~Emergency Operations Center (EOC)~~ are located approximately 11 miles northeast of the ~~DCPP~~Diablo Canyon Power Plant. See figure below.



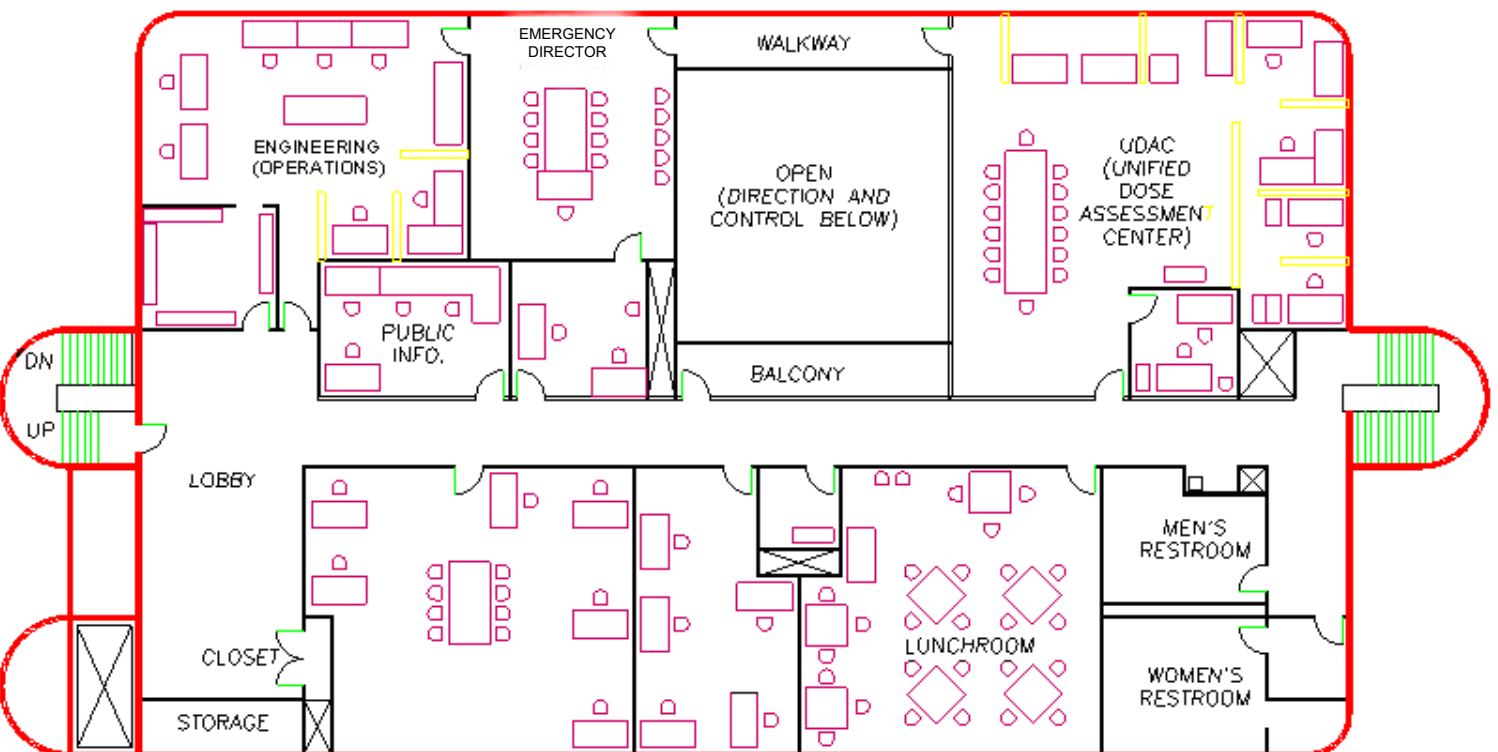
The San Luis Obispo County Sheriff's watch commander and dispatch center occupy this building on a 24-hour basis. The first floor of the building provides space for the County EOC, and the Sheriff's watch commander and dispatch center. See figure below.



71-7A

FIRST FLOOR OF EOC / EOF BUILDING

The second floor houses the EOF, the ~~Unified Dose Assessment Center (UDAC)~~ and office space for ~~the State of California Office of Emergency Services (CA OES); the Nuclear Regulatory Commission (NRC); the Federal Emergency Management Agency (FEMA);~~ and other responding Federal agencies. See figure below.



SECOND FLOOR OF EOC / EOF BUILDING

The ~~Joint Information Center (JIC)~~ off Highway 1 on Kansas Avenue is approximately 1/4 mile from the EOF. Utility and county public information personnel perform various functions from this facility. The JIC has a briefing room that includes office space for public information officers and a phone assistance center. See figure below.



7.1.6.27.1.5.2 Emergency Function

The EOF when activated serves as the headquarters for the Emergency Director, Advisor to the County and UDAC. The EOF acts as the interface between the Company/County, and the public. The Emergency Director and his staff utilize the EOF as their headquarters to provide overall direction of the recovery effort for Company response personnel for a declared emergency.

7.1.6.37.1.5.3 Habitability Objectives

The distance from the plant to the EOF, the very low frequency of winds in the direction from the site to this location, and the shielding and turbulence produced by the mountainous terrain between the two locations makes special habitability provisions unnecessary.

7.1.6.47.1.5.4 Special Equipment

The EOF is provided with extensive telephone and radio communications capability. Communication systems in the building are redundant and include microwave links to DCPD and the General Office.

The EOF is provided with computer monitors that can display plant parameters received by the ~~Emergency Response Facility Data System (ERFDS)~~. The ERFDS recall functionality is provided by the Transient Recorder System (TRS). The ERFDS data is available on at least two (2) display computers in the EOF.

The EOF is also a central controlling station for the ~~Emergency Assessment and Response System (EARS)~~ used for off-site dose assessment.

The EOF/EOC building is protected by a Wet Pipe Fire Sprinkler System.

Management coordination between the TSC, the EOF and EOC is assured by reliable telephone communications. Telephones at key locations in the EOF/EOC are equipped for building or area paging. Backup electrical power is supplied from a 100-kW diesel-fueled emergency generator.

Resource materials available in the EOF include:

- Plant procedures
- Emergency Plan and implementing procedures
- Maps with sectors indicated (10 and 50 miles)
- Air Sampler
- Portable Count Rate and Dose Rate Survey Instruments
- Plant electrical, piping and instrumentation drawings

The EOF is provided with a display terminal and printer for each unit's ~~Plant Process Computer (PPC)~~. This provides the ability to monitor and print plant parameters acquired by the PPC.

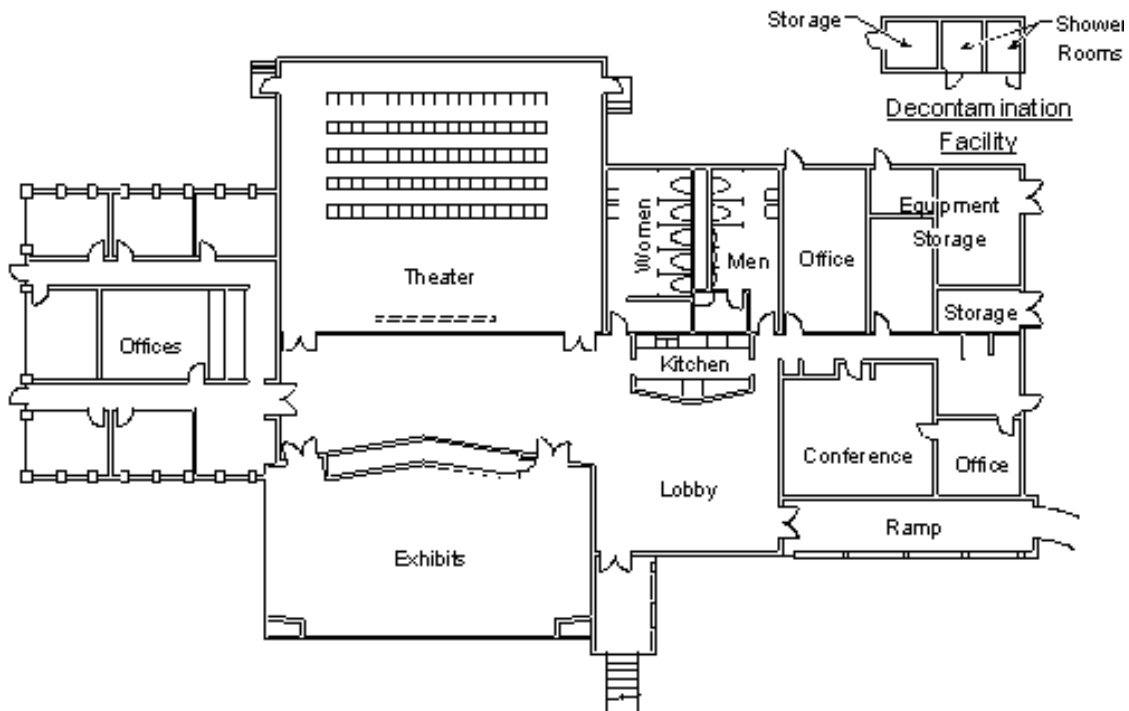
7.1.6.57.1.5.5 PG&E Corporate Interface

The Government Relations Coordinator has direct contact with the Company Incident Commander in the PG&E EOC and the Emergency Director in the EOF. The Government Relations Coordinator is provided with communications from the Company telephone system and WAN links to ~~DCPP~~Diablo Canyon.

7.1.77.1.6 PG&E Energy Education Center

7.1.7.47.1.6.1 Location and Description

The PG&E Energy Education Center is located 12 road miles from DCP in an ESE direction. The Energy Education Center is approximately 7,000 square feet. The floor plan of the Energy Education Center and adjacent decontamination shower facility is shown below.



7.1.7.27.1.6.2 Emergency Function

The Energy Education Center is the preferred location to gather on-site personnel in the event of a site evacuation, providing meteorological conditions permit. The Energy Education Center can also be used as a headquarters, staging area, and personnel decontamination center. Finally, the Energy Education Center is the first choice for a backup Emergency Operations Facility.

7.1.7.37.1.6.3 Habitability Objectives

No special provisions have been provided to enhance habitability for radiological emergencies. The Energy Education Center has lavatory and kitchen facilities.

7.1.7.47.1.6.4 Special Equipment

The Energy Education Center is provided with a base station emergency radio as well as PG&E and Public Switched Telephone Network (PSTN) telephones. It also has two decontamination showers and related supplies, including replacement clothing.

7.1.87.1.7 San Luis Obispo Service Center

7.1.8.47.1.7.1 Location and Description

The San Luis Obispo Service Center is located in San Luis Obispo approximately 10 miles east of D~~CPP~~~~Diablo Canyon~~. The Service Center serves as the local headquarters for the Los Padres division of PG&E. There is space for about 15 persons in the adjoining Division Emergency Center. Around the clock access to the San Luis Obispo Service Center is available.

7.1.8.27.1.7.2 Emergency Function

The San Luis Obispo Service Center is a back-up off-site assembly area in the event of a site evacuation. It could also be used as a backup location for the EOF. It also serves as the backup location for activating the ~~Early Warning System~~-EWS.

7.1.8.37.1.7.3 Habitability Objectives

No special provisions have been provided to enhance habitability for radiological emergencies. The San Luis Obispo Service Center has lavatory and limited kitchen facilities.

7.1.8.47.1.7.4 Special Equipment

The San Luis Obispo Service Center is provided with a base station emergency radio as well as PG&E and PSTN telephones.

7.2 COMMUNICATIONS EQUIPMENT

DCPP is provided with two categories of telephone networks: "Operations" plant telephone network (OPTN) and "Admin" plant telephone network (APTN). All plant telephones on these company telephone networks (whether Operations or Admin) are capable of communicating with other company telephones, including other plant telephones located at on-site and off-site emergency response facilities. The communications equipment described in this section deals with the OPTN which provides the DCPP E-Plan communications capabilities.

7.2.1 Plant Telephone Network

The ~~Operations Plant Telephone Network (OPTN)~~ is part of the Company owned and operated telecommunications system, which can be used for routine inter-company communications. Any plant telephone on the company telephone network is capable of communicating with other company telephones, including other plant telephones located at on-site and off-site emergency response facilities. The OPTN is designed with a highly redundant and resilient architecture. During an emergency, the OPTN is the primary communication method for voice communications between emergency response facilities. Plant telephones are located at various locations throughout the plant, including the Control Room, Hot Shutdown panels, Security Building, laboratories, shops, Technical Support Center, Operational Support Center, Emergency Operations Facility, Alternate Emergency Response Facilities in San Luis Obispo, and other work and equipment operating areas. In addition, phone jacks are located in the Control Room and at other strategic operating locations throughout the plant. Each phone jack is associated with a telephone number, and when used in conjunction with a portable telephone unit, can communicate with any other telephone in the power plant as well as the company telephone network.

The OPTN Private Branch Exchange (PBX) consists of redundant and resilient core switching systems and gateways. The equipment is geographically distributed and designed with no single points of failure. The core switching systems located in Power Block Com Room 1 and the Building 102 Communications Room are each capable of automatically handling all call traffic should the other system fail. The EOF and Alternate TSC-OSC are part of the OPTN infrastructure.

External Public Switched Telephone network (PSTN) telephone calls to and from the OPTN are processed as follows: For DCPP and Alternate TSC-OSC phones, the calls are via redundant Telco Session Initiation Protocol (SIP) trunks over two independent route-diversified trunks; and for EOF phones the calls are via redundant Telco ISDN-PRI T1 trunks. In case of the remote possibility of both DCPP SIP trunks to the PSTN failing at the same time, the OPTN can be rerouted to the PG&E central datacenter PSTN SIP trunks. Internal PG&E calls to and from the OPTN to and from sites outside the DCPP area are routed via route-diversified SIP trunks using the resilient PG&E Wide Area Network and are processed by the PG&E private voice network.

The OPTN allows for two-way auto ring-down phone lines with priority access. The ring-down function rings a phone or group of phones when one of the phones goes off-hook. Priority access ensures selected phone lines take priority over other call traffic.

Also, off-premise extensions (i.e., plant telephones physically located off-site) provide unrestricted access to the OPTN. These extensions are at locations throughout San Luis Obispo County.

The OPTN has several built-in conference call features to allow multiple callers to be connected to the same phone call. One such line is set aside for emergency use and is normally initiated following the sounding of the emergency signal or the fire alarm. Numerous personnel who pick up a company phone and dial a special conference call number will be included in the call.

There will be an available telephone line at the ISFSI to report any emergencies. During cask handling and transportation both security and operations personnel are present with plant radio systems. During normal storage conditions security in the vicinity of the ISFSI is equipped with plant radio systems.

7.2.2 Communication Interface with Public Switched Telephone Network (PSTN)

The DCPP Emergency Response Facilities are served by two redundant shared ~~Session Initiation Protocol (SIP)~~ trunks for handling both, the Administrative and Emergency call traffic.

The OPTN has direct dial lines which allow direct access to plant extensions from the PSTN. These trunk lines come in via two separate paths for redundancy. All service from the PSTN to the OPTN is distributed among the two PBX nodes. Separate redundant trunks are provided to the EOF for handling the Administrative and Emergency call traffic. Separate PSTN lines come into the plant for operational use. One line is mounted ~~on the Senior Control Operator's desk~~ in the Control Room to call out from the Control Room in an emergency. This number is unlisted to assure it will not be tied up. A second line runs to the site vice president's office, a third line to the Security Supervisor's office, a fourth line is dedicated to the Central Alarm Station (CAS), and the fifth goes to the Secondary Alarm Station (SAS). These numbers are unlisted to ensure they will not be tied up.

7.2.3 Power Supplies

Power is provided by a battery charger where the charger supplies the load and float current for the batteries. The AC for the chargers for the primary and backup telephone system servers located in the Unit 1 communications room are supplied from redundant sources. The AC for the chargers for the primary and backup telephone system servers located in the Building 102 communications room are supplied from a single source. The battery chargers are load-sharing units. The mountain top repeater for the microwave systems are DC powered, employing AC powered battery chargers with batteries which float on the line. An automatic emergency generator at each repeater site supplies the charger if normal AC power is lost.

7.2.4 Control Room Telephone Communication

Numerous phone lines link the Control Room to the plant PBX nodes for redundancy.

In addition, there are several special provisions including:

- Two-way auto ring-down lines from the Control Room and ~~Technical Support Center (TSC)~~ to the ~~California Office of Emergency Services (CA OES)~~ located in Sacramento, the ~~Emergency Operations Facility (EOF)~~, and the Sheriff's Department in San Luis Obispo.
- Dedicated lines that go from the Control Room and TSC to NRC Headquarters in Bethesda, Maryland (NRC FTS telephone).
- Two-way auto ring-down phones with priority access from the ~~Operational Support Center (OSC)~~ and the TSC to the Control Room.

7.2.5 Telephone Communications for the Technical Support Center (TSC)

The TSC has numerous phone lines to the plant PBX network. Additional telephone communications for the TSC are provided by a PBX multi-line phone. From this phone, all incoming calls to the plant emergency phone number can be answered and/or transferred to personnel designated for response. The phone can also be used to obtain an outgoing trunk for use by the TSC phones.

The TSC has two-way auto ring-down phone lines with priority access to the Control Room, Operational Support Center, Emergency Operations Facility, the San Luis Obispo County Sheriff's Department, and the ~~California Office of Emergency Services (CA OES)~~. The TSC also has a standard unlisted telephone from the NRC FTS telephone system. This telephone provides direct access to an off-site location in the event the Company exchange system is not available.

7.2.6 Operational Support Center Telephone Communications

The ~~Operational Support Center (OSC)~~ has a PBX line and a two-way auto ring-down phone line with priority access to the Control Room and the TSC. In addition, the OSC has access to several telephone extensions installed for routine use.

7.2.7 Telephone Communication at the Emergency Operations Facility (EOF)

The ~~Emergency Operations Facility (EOF)~~ and County ~~Emergency Operations Center (EOC)~~ are co-located near the San Luis Obispo County Sheriff's Department. Included in the building is the County Sheriff's Dispatch Center, which has a two-way auto ring-down phone line with priority access to the Control Room and TSC. This phone line can be accessed from each end.

There is an Off Premise Extension (~~OPX~~), in the EOC Command Center. This extension provides unrestricted access to the power plant, via company owned microwave paths, should the local PSTN be congested.

Communication circuits for the EOF include telephone trunk lines from the DCPD PBX and additional unlisted telephone lines from the PSTN Network. The NRC FTS telephone lines also tie into the EOF.

Communications between the plant and French Hospital, San Luis Obispo, can be channeled through the EOF. Normal communications will be via commercial telephone. Portable radios may also be used for emergency communications between French Hospital the Plant and EOF.

7.2.8 Data Communication System

The data communication system contains many dedicated circuits that are used in collecting and distributing information. The data network is divided into four areas: 1) records management, 2) time-share operation, 3) operational computer, and 4) health physics.

The majority of the data links radiate from the TSC, which has connectivity to the PG&E LAN/WAN for distribution to many locations in the PG&E network including the PG&E General Office in San Francisco and the EOF.

7.2.9 Nuclear Regulatory Commission Communication Lines

The ~~Nuclear Regulatory Commission~~ (NRC) installed a dedicated telephone system for their use at Diablo Canyon Power Plant.

This system, the Federal Telecommunications System (FTS), provides a separate government network for all the essential communications functions anticipated during an emergency. These essential functions are summarized as follows:

- 1) ~~Emergency Notification System~~ (ENS): Initial notification by the licensee, as well as ongoing information on plant systems, status, and parameters. The ENS telephones are located in the TSC, Control Room, and EOF.
- 2) Health Physics Network (HPN): Communication with the licensee on radiological conditions (in-plant and off-site) and meteorological conditions, as well as their assessments of trends and need for protective measures on-site and off-site. The HPN telephones are located in the TSC and EOF.
- 3) Reactor Safety Counterpart Link (RSCL): This is the channel by which the NRC Operations Center supports NRC reactor safety personnel at the site. In addition, this link may be also used for discussion between the Reactor Safety Team Director and licensee plant management at the site. The RSCL telephones are located in the TSC and EOF.
- 4) Protective Measures Counterpart Link (PMCL): This is the channel by which the NRC Operations Center supports NRC protective measures personnel at the site. In addition, this link may also be used for discussion between the Protective Measures Team Director and licensee plant management at the site. The PMCL telephones are located in the TSC and EOF.
- 5) Management Counterpart Link (MCL): Established for any internal discussions between the Executive Team Director or Executive Team members and the NRC Director of Site Operations or top-level licensee management at the site. The MCL telephone is located in the EOF.
- 6) ~~Local Area Network~~ (LAN) Access: Established for access to any of the products or services provided on the Operations Center's local area network. This includes technical projections, press releases, status reports, E-Mail, and various computerized analytical tools. The LAN line is located in the EOF.

~~Emergency Response Data System (ERDS): The ERDS application transmits plant data to the NRC during emergencies. This application runs on the redundant DMZ servers and is activated via remote login. The ERDS application connects to an NRC provided and owned Virtual Private Network (VPN) device via the redundant PDN firewall, the DCPD LAN and the PG&E LAN. Upon activation, ERDS transmits specific plant accident parameters as encrypted data to the NRC Emergency Response Center via the secure internet VPN connection.~~

7.2.10 Satellite Telephones

Satellite telephones are available for use for intercommunications between emergency response facilities, along with communicating to Field Monitoring Teams.

7.2.11 UHF and VHF Radio System

7.2.11.1 General

The plant has several voice radio systems available for emergency response use in the UHF (Ultrahigh Frequency) and the VHF (Very High Frequency) radio-frequency bands. In the shorter range UHF band, the plant has voice channels available for Plant Operations and Security use, so that personnel from each department can simultaneously utilize radio communications to perform their duties without interfering with or being interfered with by each other.

The Plant can also communicate by voice radio on VHF channels assigned for Marine use and VHF Aeronautical channel (122.9 MHz). A channel is also available for use by CAL FIRE/County Fire for firefighting.

7.2.11.2 Plant UHF Radio Systems

The DCPD UHF radio systems can maintain point-to-point communications between the Control Room, the San Luis Obispo Service Center, the PG&E Energy Education Center, the Port San Luis Gate, the San Luis Obispo County Sheriff's Dispatch Center, Technical Support Center, the Emergency Operations Facility, the Security Department, in addition to satellite telephones. Field Monitoring Teams have mobile radios and hand-held radios available for communication to the Emergency Operations Facility using the County Brown radio network.

The plant UHF radio system provides direct radio unit to radio unit usage around the Diablo Canyon site and between emergency response facilities which is independent of the telephone systems. The base station receivers located at the Emergency Operations Center, the PG&E Energy Education Center and San Luis Obispo Service Center are equipped for selective calling. The normally silenced receivers may be selectively keyed by the plant Control Room, TSC, or County EOC. This feature may be cut out on the base station receivers to permit continuous, unrestricted monitoring of all units during emergency situations.

The Communications Room base stations are powered from battery backed DC power supplies which are fed from plant vital AC power. The radio system power supply is independent of all other non-vital 48 VDC fed equipment in the room.

Control consoles for this system are located in the Control Room, Technical Support Center, and Emergency Operations Facility.

Additionally, in-plant antenna arrays on radio systems make portable radio communications possible throughout the plant.

7.2.11.3 VHF Systems

The VHF radio system is the Company's Los Padres District Commercial operating network that covers from King City in the north to Solvang in the south. District Company radio-equipped vehicles within the district are normally dispatched by one of the several base stations in this network. The Control Room, TSC, and EOF are equipped with VHF radio consoles that can also be used for dispatch.

7.2.12 Joint Information Center

Telephone service for the Joint Information Center is provided primarily by the PSTN Company with some service from the PG&E network.

7.2.13 News Services Office San Francisco

Telephone service in the News Services Office in San Francisco is provided primarily by the PSTN Company.

7.3 ON-SITE SIGNALS AND ALARMS

Several signals and alarms are provided to alert plant personnel to a possible emergency situation. These include:

7.3.1 Site Emergency Signal

The site emergency signal is a very loud sound produced by electronic warblers placed at numerous locations throughout the plant. The site emergency signal ~~and containment evacuation signal are~~ is the only plant signals that ~~is are~~ produced by an electronic warbler. The site emergency signal sound is a rapid rise in pitch followed by a slower drop. The cycle repeats itself as long as the signal is energized.

The site emergency signal is initiated manually by the Control Room ~~Operator~~ personnel. Control switches are provided at the Control Room Consoles and the Hot Shutdown Panels for Units 1 and 2. Once initiated, the signal will continue until it is manually turned off.

Due to high background noise levels, flashing red lights as well as a warbler are included in the containment buildings and in some locations of the turbine and auxiliary buildings.

The response of on-site personnel to the site emergency signal, other signals and alarms is discussed in Section 6 of the Emergency Plan.

7.3.2 Fire Signal

The fire signal is produced by sirens placed at numerous locations throughout the plant. The fire signal is a steady tone for thirty seconds.

The fire signal may be initiated from any PG&E dial telephone in the plant. A three-digit number is dialed, and the caller is routed to the Control Room where the Unit 1 operator can filter the call and verify the need to sound the Fire Signal. If required, the operator actuates the signal. If the operator is delayed from answering, the caller will route to the Emergency Bridge after four rings. The Fire Signal is actuated as soon as the call enters the Bridge and sounds for 30 seconds.

The bridge has multiple ports on the initiation side that will allow multiple callers the ability to report a fire or other emergency. The answer side of the bridge has multiple ports so that Operations, Fire and Medical personnel can listen in to see if they need to respond to the fire/emergency.

7.3.3 Criticality Monitor Signal

The criticality monitors are area monitors over the spent fuel pool and the new fuel storage area. These instruments generate an evacuation signal if radiation levels exceed the setpoint value.

The criticality monitor signal consists of horns mounted so that they are audible throughout the fuel handling building and in the hot shop area as well as flashing red lights which are mounted near the doors to the fuel handling building on the +85', +91', and +115' elevations. Flashing red lights over the doors in the hot shop indicate which fuel handling building has been alarmed. Units 1 and 2 have similar systems.

~~7.3.4 Containment Evacuation Signal~~

~~The containment evacuation signal utilizes the same signaling equipment within the containment as is used for the site emergency signal. The electronic warbler on the +140' elevation and flashing red lights on the +91' and +115' elevations are utilized. In addition, a flashing red light is located at the entrance to each personnel airlock.~~

~~The containment evacuation alarm is manually actuated from the control console, or from switches mounted in the containment by each airlock. This signal is independent for each unit. The containment evacuation alarm will continue until manually reset in the Control Room.~~

7.4 OFF-SITE EARLY WARNING SYSTEM

An ~~Early Warning System (EWS)~~ is installed to provide prompt alerting of the public in the event of a major emergency at ~~DCPP~~Diablo Canyon Power Plant. The EWS, used in conjunction with radio and TV broadcasts, allows instructions, information, and necessary actions to be immediately communicated to the general public.

The EWS is designed to meet the requirements of NUREG-0654/FEMA-REP-1 and employs guidelines set forth in FEMA REP-10, "Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants."

The EWS design objective specified in Appendix 3 of NUREG-0654 is to provide an alert signal within 15 minutes. This signal is initiated in conjunction with broadcasts providing notification and informational or instructional messages to the population on an area-wide basis throughout the NRC minimum ten-mile radius EPZ. The initial alerting system is designed to assure direct coverage of essentially 100 percent of the population within five miles of the plant site. The SLO County/Cities Nuclear Power Plant Emergency Response Plan provides arrangements to assure 100 percent coverage of the population within the NRC designated plume exposure EPZ.

7.4.1 Outdoor Warning

The portion of the EWS providing initial outdoor alerting for the public to turn on their radios consists primarily of a siren system. Alerting provisions for groups that require special contact arrangements and for craft-at-sea are included in the SLO County/Cities Nuclear Power Plant Emergency Response Plan.

The approach taken in designing the siren system is based on the criteria set forth in documents noted above and on substantial practical field experience by the manufacturer. Because of the many factors that can greatly alter sound propagation from a warning device toward a potential listener, the design criteria set forth in the documents identified above are conservative in theoretical terms.

The system employs several siren sizes to attain the desired coverage. Choice of smaller sirens is often dictated by terrain or sparsely populated or isolated areas.

The number of sirens employed in the system was determined by choosing the siren providing the desired radius of coverage deemed necessary to achieve an adequate dissonant alerting signal level.

7.4.2 Indoor Warning

Large groups of people may be gathered together inside structures. Such structures may preclude detection of the warning provided by the outdoor warning system or may present particular response problems. The Emergency Alert System (EAS) is the primary means of providing indoor warning to residents of the DCPD Emergency Planning Zone.

San Luis Obispo County also has approximately 100 tone alert monitor receivers in schools, hospitals, special care facilities, and other institutions to alert them with special instructions. No tone alert monitor receivers are distributed to residential members of the public. Control consoles for activation of these receivers are located in the Sheriff's Dispatch Center in the EOC/EOF Building.

A pager is assigned to an on-call county emergency responder. The pager is activated from the Sheriff's Dispatch Center or via any telephone system. The county uses cellular technology to contact additional county emergency response personnel including governmental officials and members of the Environmental Health field monitoring teams.

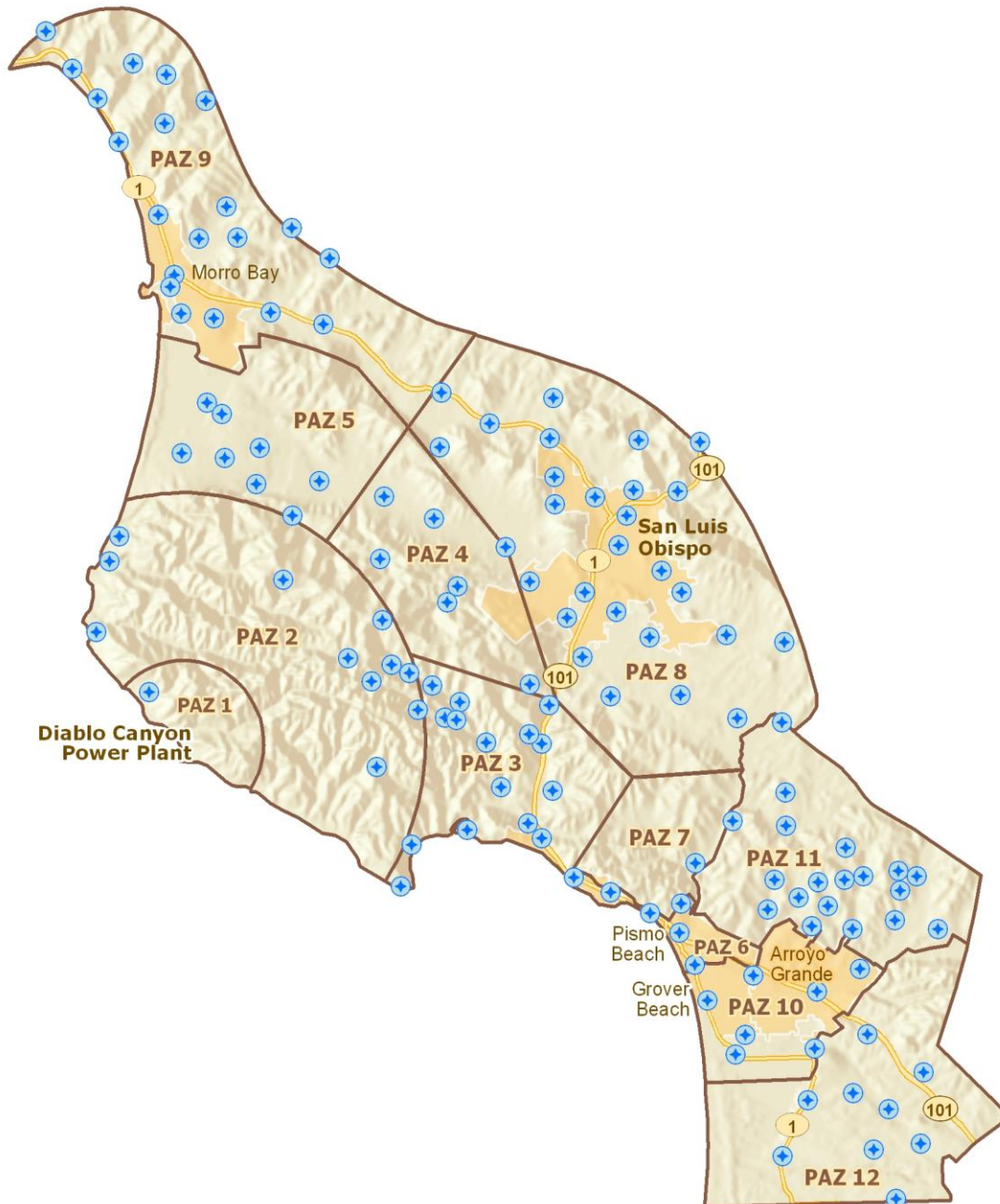
7.4.3 Early Warning System-Area of Coverage

The coverage area of the EWS has been extended beyond the ten-mile radius to include the approximately 18 miles north and 22 miles south of the plant. The design coverage objective is based on the following assumptions:

- 1) All populated areas within the outdoor siren coverage range will be alerted with a 60 dB or greater siren signal.
- 2) All public institutions and business operations will have and use means for communicating specific instructions to their personnel when they hear the siren signal.

The large area within the five-mile radius of the plant has limited siren sites since it is rugged wilderness and, largely, inaccessible to the public. A portion is identified as a state park with jeep trails. The County Emergency Plan provides special notification arrangements in this area.

There are 131 area sirens of various sizes used in the EWS. The siren locations and approximate areas of coverage are illustrated below.



7.4.4 Siren Location

The location of each siren was determined in accordance with ambient noise measurements and other considerations.

A site survey to measure ambient noise levels was made in the general area of each proposed siren site. These measurements, the topography, the terrain coverage and the population density formed the basis for choosing the siren setting. A substantial portion of the population covered by each siren will be in a sound field that is 10 dB above the average daytime ambient background noise. Each siren site was chosen to minimize the biological, cultural and human impacts consistent with proper acoustic coverage.

7.4.5 Early Warning System Activation

The EWS sirens are activated by a Supervisory Control and Data Acquisition (SCADA) control system with primary and backup activation centers. San Luis Obispo County Emergency Operations Center personnel are responsible for system activation. The SCADA control system sends commands to and receives data from the sirens via radio signals from radio base stations such as Tassajera, Black Butte, Davis Peak, and Arroyo Grande Hill. Most of the sirens can be reached from at least two of the base stations.

The SLO County Sheriff Watch Commander, is responsible for EWS activation upon authorization as described in the SLO County/Cities Nuclear Power Plant Emergency Response Plan. The sirens can be activated simultaneously, individually or in designated groups. Security provisions against inadvertent operation of the EWS are built into the SCADA control system.

Should any siren fail to activate, physical means for backup alert and notification are available as described in the FEMA approved alert and notification design report.

7.5 ON-SITE ASSESSMENT SYSTEMS AND EQUIPMENT

7.5.1 Seismic Monitoring System (SMS)

In the event of an earthquake, the mitigating actions required are determined by the magnitude of the earthquake. The seismic instrumentation, as described in Section 3 of the DFSAR, includes the equipment used as the primary means for timely determination of the magnitude of an earthquake. Emergency classification is based on the earthquake magnitude displayed on the Earthquake Force Monitor (~~EFM~~) located in the control room. In the event of an earthquake measuring greater than 0.01 g on the acceleration recorder at 89' elevation of the Unit 1 containment structure, or on the free-field acceleration recorder located north of Unit 1 containment, an annunciator will alert the control room operators and peak ground acceleration (g) values from the seismic monitors will be displayed on the Earthquake Force Monitor~~EFM~~. The Unit 1 acceleration recorders represent on-site ground motion for both Units 1 and 2.

7.5.2 Meteorological Systems

7.5.2.1 Measurement Systems

As shown in DFSAR Figure 2.3-4, there are two meteorological (Met) towers located on-site and seven supplemental Met towers that are located off-site within the vicinity of the plant. The seven supplemental (10-meter) Met towers (Pt. Buchon, Los Osos, Foothill, Service Center, Information Center, Grover Beach, and Davis Peak) have meteorological instrumentation run exclusively for DCPD by PG&E. In addition, two other off-site Met locations (Templeton and Santa Maria) are run by PG&E for other projects, but have data available for emergency response. Also available are two 10-meter tower sites (Morro Bay and Grover Beach) that are operated by the San Luis Obispo County Air Pollution Control District and the aviation weather observations at the county airport.

The seven supplemental PG&E surface (10-meter) Met towers provide consecutive 15-minute averages of wind speed, wind direction and wind direction standard deviation (sigma theta) based on a 1-2 second sampling interval. The APCD 10-meter sites provide hourly averages of wind speed and direction based on a 1-second sampling interval at Grover Beach and Morro Bay. The Weather Service/Airport site provides standard airways sequence data. All data from the PG&E sites are available in real time at the EOF by PG&E Wide Area Network and dial-up modem.

Site meteorological conditions are monitored continuously by the two on-site meteorological towers that are in close proximity to the plant structures. A primary 76-meter tower system is located about 200 meters SSW of the plant structures. Measurements have been taken and used from this site since July 1967. The following data are provided:

- Wind speed, wind direction, wind direction standard deviation at the 10-meter and 76-meter levels
- Temperature at 10-meters, 46-meters, and 76-meters
- Temperature difference (delta T) between 10-meter and 46-meter and between 10-meter and 76-meter levels
- Precipitation and dew point near the tower base
- 10-meter, 46-meter and 76-meter aspirator frequency

Meteorological data at the primary site is recorded continuously on a multi-point recorder and digitized electronically at least once every two-seconds. A primary meteorological digital processor is located in the primary meteorological facility that communicates data to redundant meteorological computers located in the Technical Support Center (TSC) (FSAR-DSAR 2.3.4). Fifteen-minute mean values are computed from the transmitted data by the TSC meteorological computers.

The redundant TSC meteorological computers provide data to redundant meteorological data servers which provide Unit 1 & 2 network communication of the 15 minute values to the Plant Data Network (PDN), the Emergency Assessment and Response System (EARS), and the Plant Process Computers (PPC) and select meteorological parameters to the Emergency Response Data System (ERDS).

A backup 60-meter tower system is located about 1.2 KM ESE of the primary tower with two levels of measurement at 10-meters and 60-meters. Measurement, reduction, storage, recording and transmission of backup tower data are continuous with and similar to that of the primary system. The backup Met system measures (~~DF~~SAR 2.3.4.):

- Aspirator frequency.
- Battery condition.
- Temperature difference (delta T) between 10-meter and 60-meter

It does not measure temperature at the intermediate level and the measurement of precipitation and dew point are available only at the primary site. A backup meteorological digital processor is located in the backup meteorological facility that communicates data to redundant meteorological computers located in the TSC (~~FSAR~~DSAR 2.3.4). Failure of either the primary or backup systems will be shown on both the Unit 1 and Unit 2 PPC alarm screens and alarm printers. Power for the primary system is derived from the Unit 1 480 volt non vital bus with automatic switching in the event of failure to the Unit 2 480 volt bus. The primary microprocessor and meteorological sensors are backed up by an 8-hour battery source. The backup meteorological system is supplied AC power from the underground 12kV startup bus with backup power in the form of a one-week battery source.

In the event of failure of both the primary and backup electronic measurement systems, a portable weather instrumentation package is available for deployment. This instrumentation package is battery powered for independent operation and provides recording of wind speed, wind direction and ambient temperature, which can be used to estimate off-site effects through manual calculation procedures in the event of failure of the automated assessment process. Should its use be required, (X/Q would be determined by using wind speed and a stability category based on wind direction range. (See App. 2.3I of Reference 3).

These measurement systems have been upgraded continually and currently satisfy all requirements of NUREG-0737, NUREG-0654, and Regulatory Guide 1.23 of the NRC.

7.5.2.2 Modeling Systems

Dispersion modeling software is operational on the Meteorological tower on-site computer systems to provide required inputs to the Dose Calculation Methodology. The model in use is consistent with characteristics of a Class A model as required by NUREG-0654 and 0737. Normalized ground level plume centerline concentration (dilution) values (X/Q) are computed by the model as 15-minute means for ten downwind distances ranging from 0.8 to 100 kilometers. Lateral and vertical plume dimension (sigma y and sigma z) are also provided for each of the same downwind distances. Concentration and plume dimension data generated by the model provide the necessary relationships between effluent monitor readings and off-site exposure and contamination levels. These data are distributed to recipients in the same manner specified earlier for meteorological measurement data.

Additional details on the meteorological measurement and modeling systems are provided in Section 2.3 of Reference 3.

7.5.3 Area Radiation Monitoring System

The area radiation monitoring system is a system of permanently installed radiation monitoring detectors located throughout the plant. Monitors and locations are listed below. The purpose is to measure the ambient radiation level in each monitored area. Such information is used both for personnel radiation protection purposes and to alert personnel to the release of radioactive materials within a plant structure.

This system includes G-M or Ion chamber detectors that are permanently mounted. Each of these instruments has a readout at the detector and in the Control Room, except as noted below. If an adjustable high radiation setpoint is reached, audible and visual alarms are sounded both at the detector and in the Control Room. The GM detector instruments are calibrated in mR/hr and have a range of 0.1 up to 10,000 mR/hr. The instruments will remain pegged full scale at radiation levels beyond the full-scale value. These instruments are powered from emergency power sources and would be available for post-accident use (except as noted below).

Additional detectors have been added to augment the original system of GM detectors in order to provide area monitoring where new spaces or specialized equipment have been added. The additional areas where these detectors have been added are in the Technical Support Center (G-M Type), ~~and in the Containment Structures (Ion Chamber Type).~~

Detector Number	Location	Remarks
U-1 & 2 R-1	Control Room	
~~U1-R-2~~ ~~U2-R-2~~	~~Containment operating deck (140' elevation) near personnel access hatch.~~	~~Not designed to withstand post loss-of-coolant-accident containment temperature.~~
~~U1-R-4~~ ~~U2-R-4~~	~~Charging pump room (73' elevation in Auxiliary Building).~~	
~~U1-R-6~~ ~~U2-R-6~~	~~NSSS Sampling room (100' elevation in Auxiliary Building).~~	
~~U1-R-7~~ ~~U2-R-7~~	~~Incore seal table area (103' elevation in containment).~~	~~Not designed to withstand post loss-of-coolant-accident containment temperature.~~
~~U-1 & 2 R-10~~	~~Auxiliary Building control board (85' elevation in Auxiliary Building).~~	
~~U1-R-30~~ ~~U1-R-31~~ ~~U2-R-30~~ ~~U2-R-31~~	~~Containment high range radiation (140' elevation in containment).~~	~~Designed to withstand post loss-of-coolant-accident (LOCA) conditions in containment.~~
U1-R-34 U2-R-34	85' Plant Vent RMS Room (ALARA)	
~~U1-R-48~~ ~~U2-R-48~~	~~HRSS (Sentry) Post Accident Sampling Room~~	~~Non-vital power supply Local readout only~~
U1-R-58 U2-R-58	Spent Fuel Pool Storage Area	
U1-R-59 U2-R-59	New Fuel Storage Area	
U-1 & 2 R-60 U-1 & 2 R-61 U-1 & 2 R-62 U-1 & 2 R-63 U-1 & 2 R-64 U-1 & 2 R-65	TSC Office Area TSC Operations Area TSC Computer Area TSC NRC Office Area TSC HVAC Equipment Area TSC Lab Area	Local readout only Normal power is from non-vital supply, but can be aligned to vital buses from Switchgear room.

7.5.4 Process Radiological Monitoring System

Several liquid and gaseous plant process streams are continuously monitored for radioactivity to provide an indication of equipment performance and provide a record of radioactivity releases to the environment. The important process monitors from the standpoint of potential usefulness in emergency situations are listed below.

Detector	Process & Location	Type	Range (CPM)	Remarks
~~1-R-11~~ ~~2-R-11~~	~~Containment air particulate~~ ~~(100' penetration area GE)~~	~~Gamma~~ ~~scintillation~~	~~10^1 to 10^6~~ ~~cpm~~	~~Continuous sample drawn from containment, passed through moving filter, returned to containment. Detector looks at filter. Sample lines are automatically isolated by R-44A/B in event of major accident in containment.~~
~~1-R-12~~ ~~2-R-12~~	~~Containment air gas~~ ~~(100' penetration area GE)~~	~~G-M~~	~~10^1 to 10^6~~ ~~cpm~~	~~Detector looks at sample flow downstream of particulate monitor. Sample lines are automatically isolated by R-44 A/B in event of major accident in containment.~~
~~1-R-13~~ ~~2-R-13~~	~~RHR exhaust duct air particulate~~ ~~(100' Aux. Building)~~	~~Gamma~~ ~~scintillation~~	~~10^1 to 10^6~~ ~~cpm~~	~~Detector looks at air particulate sample on moving filter.~~
1-R-14/14 R 2-R-14/14 R	Plant Vent gas (85' area L)	Beta scintillation	10^1 to 5×10^6 cpm read out in $\mu\text{Ci/cc}$	Detector looks at pressurized sample flow downstream of iodine and particulate monitors.
~~1-R-15/15~~ ~~R~~ ~~2-R-15/15~~ ~~R~~	~~Condenser air ejector gas~~ ~~(104' Turbine Building)~~	~~Beta~~ ~~scintillation~~	~~10^1 to 5×10^6~~ ~~cpm~~	~~Detector looks at air ejector off gas.~~
1-R-17A, B 2-R-17A, B	Component Cooling Water (73' Aux. Building)	Gamma scintillation	10^1 to 10^6 cpm	Detector looks at sample off CCW discharge header. High alarm isolates CCW surge tank vent.
R-18	Liquid radioactive waste system effluent line to ocean (54' Aux. Building)	Gamma scintillation	10^1 to 10^6 cpm	Looks at waste stream prior to dilution in outfall. High alarm closes waste discharge valve and diverts to EDR.

(continued on next page)

Detector	Process & Location	Type	Range (CPM)	Remarks
~~1-R-19~~ ~~2-R-19~~	~~Steam generator blowdown liquid (100' Aux. Building penetration area GE)~~	~~Gamma scintillation~~	~~10^1 to 10^6 cpm~~	~~Detector looks at combined blowdown from 4 steam generators. Can be valved to look at each steam generator individually. High alarm will isolate Stm. Gen blowdown tank inlet and overboard lines.~~
R-3	Oily water separator effluent (85' Turbine Building)	Gamma scintillation	10^1 to 10^6 cpm	
1-R-22 2-R-22	Gas decay tank discharge gas (54' Aux. Building)	G-M	10^1 to 10^6 cpm	Detector looks at gas decay tank discharge line and isolates it on high alarm.
~~1-R-23~~ ~~2-R-23~~	~~Steam generator blowdown to discharge tunnel (100' Aux. Building penetration area GW)~~	~~Gamma scintillation~~	~~10^0 to 10^6 cpm~~	~~Detector looks at liquid blowdown. $10-7 \mu\text{Ci/cc}$ is the detectable level. High alarm will isolate Stm. Gen blowdown tank inlet and overboard lines.~~
1-R-24/24R 2-R-24/24R	Plant Vent iodine (85' area L)	Gamma scintillation	10^1 to 5×10^6 cpm (readout in $\mu\text{Ci/cc}$)	Detector looks at plant vent I-131. Sensitivity based on I-131. Continuous sample is drawn through fixed particulate prefilter and silver zeolite cartridge in series. Detector looks at silver zeolite cartridge.
~~1-R-25~~ ~~2-R-25~~ ~~1-R-26~~ ~~2-R-26~~	~~Control room ventilation supply (160' Aux. Building)~~	~~Gamma scintillation~~	~~10^{-2} to 10^3 mR/hr~~	~~Detector looks at Control Room ventilation intake to supply duct. High activity will transfer ventilation system to pressurization mode. (MODE 4)~~

(continued on next page)

Detector	Process & Location	Type	Range (CPM)	Remarks
1-R-28/28R 2-R-28/28R	Plant Vent particulate (85' area L)	Beta scintillation	10^1 to 5×10^6 cpm (readout in $\mu\text{Ci/cc}$)	Continuous sample drawn from plant vent is drawn through fixed filter and detector looks at filter
1-R-29 2-R-29	Plant Vent high range gross gamma (outside PV on 155' lvl)	Ion-chamber	10^{-1} to 10^7 mR/hr	Detector monitors plant vent gross gamma by using a shielded detector with a wedge shaped "view window" aimed at the plant vent.
1-R-41 1-R-42 1-R-43 2-R-41 2-R-42 2-R-43	Gas decay tanks (64' Aux Building).	Ion-chamber	10^0 mR/hr to 10^4 mR/hr	Readout is at the Aux. Building Control Panel only. Well mounted with view ports directed at each tank.
~~R-51 R-52 R-53 R-54~~	~~Control room pressurization system inlet (140' Turbine Building)~~	~~G-M~~	~~10^{-2} to 10^4 cpm~~	~~Detector measures gross activity in the intake line. High alarm switches intake to opposite end of Turbine Building.~~
~~R-71 R-72 R-73 R-74~~	~~Steam lines downstream of containment penetration (130' pipe racks)~~	~~G-M~~	~~10 to 10^6 cpm~~	~~Detector measures gross gamma activity in steam line, including Nitrogen-16.~~
~~1-R-44A & 44B 2-R-44A & 44B~~	~~Containment Purge Exhaust (100' penetration area L)~~	~~Beta- scintillation~~	~~10 to 5×10^6 cpm~~	~~Containment purge exhaust. High alarm causes CVI.~~
R-66 R-68	TSC HVAC Duct TSC Lab	Beta scintillation	10 to 10^6 cpm	Particulate Monitor
R-67 R-69	TSC HVAC Duct TSC Lab	Beta scintillation	10 to 10^6 cpm	Noble Gas Monitor
R-82 R-83	TSC HVAC Duct TSC Lab	Gamma scintillation	10 to 10^6 cpm	Iodine Monitor
1-R-87 2-R-87	Plant Vent extended range gas (85' area L)	Beta scintillation	10^{-3} to 10^5 $\mu\text{Ci/cc}$	Extended Range Plant Vent Noble Gas Monitor
1-RF-87A & 87B 2-RF-87A & 87B	Plant Vent Sample (85' area L)	Sampler only	N/A	Iodine Grab Sample (High Range)

7.5.5 Radiological Counting Room

The plant has extensive counting room equipment that is used for routine radiochemical determinations. This equipment could also be used during emergencies.

7.5.5.1 Location and Availability

The counting room is located on the +85' elevation of the Auxiliary Building. ~~Although this area would be expected to be available during most emergency conditions, it should be noted that operation of residual heat exchanger 1-1 in the post LOCA recirculation mode (assuming a Regulatory Guide 1.4 source term in the reactor coolant system) produces a gamma background in the facility, which would make it unusable.~~ The TSC also has the capability to accomplish radiochemical analyses.

7.5.5.2 Counting Room Equipment

1) Multi-channel gamma analysis capability

The counting room has a gamma spectroscopy system that utilizes high purity germanium detectors with high-resolution quality. The data is analyzed (peak search, peak fit, peak identification, peak quantification, etc.) by a host computer.

Analysis data from the counting room can be transmitted to the on-site Technical Support Center.

2) Liquid Scintillation Spectroscopy

The counting room employs liquid scintillation spectroscopy. This analyzer is microprocessor controlled. The analyzer is primarily used for tritium (hydrogen - 3) analysis.

3) Proportional Counting Systems

The counting room has a gas flow proportional counting system that is used for alpha and beta measurements.

7.5.6 Analytical Facilities Associated with On-Site Technical Support Center

One compartment adjacent to the Technical Support Center is set aside for analytical work. The principal purpose of this facility is to provide necessary on-site analytical capability in the event that the normal facilities in and around access control are unavailable. A germanium gamma spectroscopy system similar to those in the counting room is provided for isotopic analysis.

7.5.6.1 Emergency Assessment and Response System ~~(EARS)~~/Meteorological Information Display Assessment System ~~(MIDAS)~~

EARS receives and transfers input data from a variety of off-site and on-site monitors to a central computer for performing dispersion dose calculations using MIDAS. MIDAS includes a region specific meteorology input atmospheric dispersion model which accounts for nonlinear plume transport due to meteorology differences created by sea breeze, hill and valley influences. MIDAS provides plume projection maps and other assessment related information to centers both on-site and off-site. Overall system design seeks to optimize the diagnostic ability of operators and emergency response groups, maximizing the ability of system operators to understand events as they unfold.

EARS is interfaced to selected channels of the on-site meteorological towers, the off-site supplemental, region-specific meteorology towers, and plant radiation monitoring system. MIDAS calculates doses for off-site locations based on data received from EARS. These computed plume displays, along with input data, source terms, and meteorological parameters, are transmitted via data links to UDAC.

Each EARS/MIDAS workstation has the capability to graphically display plume projection maps and data, and to provide hard copy to the user. Displays at the TSC, EOF, and Alternate Facility are capable of accessing files generated at any other EARS/MIDAS workstation for the purpose of response planning and coordination between the facilities. Displayed information may be selected from several forms of calculated data and map presentations. Mapping capabilities are provided to superimpose plume boundaries, dose rates, airborne concentrations, population centers, and evacuation routes. Color graphics and printouts are used to increase the information content and readability of information.

7.5.6.2 System Description

EARS/MIDAS consists of three functional subsystems:

1) Input Data Subsystem

The data acquisition subsystem provides live-time radiological and meteorological data needed by the central computer as input parameters for the dose projection models. The specific input data systems are described below.

2) Central Computer Subsystem

The servers, PCs, peripherals, and software needed to manage input and output communications, and to maintain live-time and historical databases. The central computer subsystem is the main data storage and distribution point for EARS/MIDAS. It is located in the ~~Technical Support Center (TSC)~~.

3) EARS/MIDAS Workstations

These are the dedicated PC workstations; with color graphics display monitors, color printers, and the EARS/MIDAS software for execution of the dose projection model, and transmission of results to the central computer and other EARS/MIDAS workstations.

EARS/MIDAS workstations are distributed at the following locations:

- Control Room (DCPP)
- TSC (DCPP)
- EOF (San Luis Obispo)
- Alternate Facility (San Luis Obispo)

All EARS/MIDAS workstations are control enabled stations, capable of performing dose projections. Data transmission and software execution rates provide for updating the graphics display at intervals of not more than fifteen minutes.

4) Input Data Systems

a) Off-Site Radiation Monitors

The off-site monitoring system consists of a "ring" of low-level gamma dose-rate monitors installed at selected locations at distances of 6-17 miles from the ~~DCPP~~Diablo Canyon Power Plant site. These fixed locations have been chosen with a dual purpose of providing measurement stations at population centers, and of including the largest practical number of land-based sectors from the site.

b) Meteorological Towers

Meteorological data are provided from the primary on-site meteorological tower, and a secondary (backup) meteorological tower located on-site equipped with similar instrumentation at two levels, the meteorological data from either on-site tower, and the 7 off-site supplemental towers is accessible from any DCPP network PC.

EARS automatically receives and transmits to MIDAS the necessary data from the primary tower, with auto-failover to backup tower data for any missing parameters. EARS also automatically receives and transmits to MIDAS the necessary data from the off-site supplemental, region-specific meteorology towers with auto-failover to the next most appropriate region meteorology tower data if any region meteorology tower input is indicated as bad data. Manual entry of current data from the primary, backup and supplemental meteorological towers is possible in the event of some problem with automatic input or data reduction.

c) On-Site Radiation Monitors and Plant Process Instruments

Parameters from fixed radiation monitoring and process instruments are available to any network PC. EARS automatically receives and transmits to MIDAS the radiation monitor and flow element readings necessary for performing dose projections.

<u>No. of Monitors</u>	<u>Monitor Channel</u>	<u>Monitor Function</u>
~~2~~	~~R-02~~	~~Containment Area Monitor~~
~~2~~	~~R-11~~	~~Containment Air Particulate Monitor~~
~~2~~	~~R-12~~	~~Containment Noble Gas Monitor~~
2	R-14	Plant Vent Noble Gas Monitor
2	R-14R	Plant Vent Noble Gas Monitor, redundant
~~2~~	~~R-15~~	~~Condenser Air Ejector Gas Monitor~~
~~2~~	~~R-15R~~	~~Condenser Air Ejector Gas Monitor, redundant~~
2	R-22	Gas Decay Tank Discharge Monitor
2	R-24	Plant Vent Iodine Monitor
2	R-24R	Plant Vent Iodine Monitor, redundant
2	R-28	Plant Vent Air Particulate Monitor
2	R-28R	Plant Vent Air Particulate Monitor, redundant
2	R-29	Plant Vent Gross Gamma Monitor
~~2~~	~~R-30~~	~~Containment High Range Area Monitor~~
~~2~~	~~R-31~~	~~Containment High Range Area Monitor~~
2	R-87	Extended Range Plant Vent Noble Gas Monitor
2	FM-12	Plant Vent Flow Rate
~~2~~	~~FM-700~~	~~Containment Purge Flow Rate~~
~~2~~	~~FIT-81~~	~~Condenser Air Ejector Flow Rate~~
~~2~~	~~R-44A~~	~~Containment Purge Exhaust and CVI~~
~~2~~	~~R-44B~~	~~Containment Purge Exhaust and CVI, redundant~~
~~2~~	~~RE-71~~	~~Main Steam Line Monitor~~
~~2~~	~~RE-72~~	~~Main Steam Line Monitor~~
~~2~~	~~RE-73~~	~~Main Steam Line Monitor~~
~~2~~	~~RE-74~~	~~Main Steam Line Monitor~~

7.5.7 Portable Survey and Dose Rate Instruments

A variety of portable survey instruments (count rate and dose rate) are available at the plant for routine as well as emergency radiological monitoring. The general equipment types are summarized below. 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; new products appear on the market, etc. Portable survey instruments are normally located at Access Control when not in use.

Typical Portable Count and Dose Rate Meters Used

Instrument (Model No. or equivalent)	Detector Type	Radiation Measured	Range	Primary Use
Beta-Gamma count rate meter, with the following detectors:			0-600 CPM 0-6000 CPM 0-60,000 CPM	General contamination surveys
Hand probe (HP-260)	GM	Beta, Gamma		
Shielded hand probe, (HP-210)	GM	Beta, Gamma		
Count rate meter (RM-15) for use with GM probes listed above, and:			0-500 CPM 0-5,000 CPM 0-50,000 CPM 0-500,000 CPM	Personnel contamination surveys
alpha scintillation probe (AC-3B-7)	ZnS (Ag ₂), 59 cm sensitive area	Alpha		
gamma scintillation probe (SPA-3)	Nal (T1) 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 CPM 0-5,000 CPM 0-50,000 CPM 0-500,000 CPM	General contamination surveys
Beta-Gamma dose rate meter (HP 270 shielded hand probe)	GM	Beta, Gamma	0.1 -10,000 mR/hr 0-3000 mR/hr (HP-270 probe)	General environmental radiation surveys
Portable REM Counter (PNR-4)	BF ₃	Neutron, thermal to 10 MeV	0-5 mR/hr 0-50 mR/hr 0-500 mR/hr 0-5000 mR/hr	Neutron dose rate
Teletector 6112 OR Equivalent (Johnson Extender, Telescan)	Twin G-M tubes 30 mg/cm 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

Instrument (Model No. or equivalent)	Detector Type	Radiation Measured	Range	Primary Use
RO-2 or equivalent	Ion chamber 3.5 mg/cm beta window air fill gas	Beta, Gamma	0-5 mR/hr 0-50 mR/hr 0-500 mR/hr 0-5 R/hr	Dose rate
RO-2A or equivalent	Ion chamber 3.5 mg/cm beta window air fill gas	Beta, Gamma	0-50 mR/hr 0-500 mR/hr 0-5 R/hr, 0-50 R/hr	Dose rate

7.5.8 Field Monitoring and Evacuation Kits

1) Field Monitoring Kits

Field Monitoring Kits are stored on-site at Warehouse B (bldg. 113) and off-site at the EOF. Miscellaneous equipment is stored at a location near the EOF. The purpose of Field Monitoring Kits is to provide ~~Field Monitoring Teams (FMTs)~~ with the portable supplies in convenient locations for quickly dispatching teams to the field. These kits contain equipment and supplies that allow assessment of ambient exposure rate, airborne, particulate concentration, airborne radioiodine concentration, and ground deposition.

Radiological Emergency Kits Contents	
12VDC Air Sampler, sample head	Allen Key for Environmental TLD Holders
Constant Geometry Holder	Decon Center Key
Extra Sample Head	Corporate 909 Key
Air Sample Particulate Filters	Fuses for Air Sampler
AgZ and/or TEDA Impregnated Cartridges	Electronic Personal Dosimeters (0-1000R)
Paper Envelopes for Particulate Filters	Count Rate Instrument
Small Ziploc Bags	Dose Rate Instrument
Forceps	Pancake GM probe HP-210/260 (or equivalent)
Smears	Extra Batteries for instruments
Timepiece	Instruction Binder containing procedures, forms and maps
Marking Pens	Protective Clothing
Tape	Calculator
Flashlight	KI Tablets
Plastic Bags	

The following miscellaneous equipment is located with the on-site kits.
2-way radios, cell phones, and satellite telephones
Bolt Cutters

The following miscellaneous equipment is located with the off-site kits.	
Trowel	Radiation Signs w/Inserts
Grass Shears	Radiation Barrier Tape
Liter Bottles	Air Sample Particulate Filters
Coveralls	AgZ and/or TEDA Impregnated Cartridges
Skin Decon. Soap	Paper Envelopes for Particulate Filters
Scrub Brush	Small Ziploc Bags
Flashlight	Surgical Gloves
Paper Towels	Smears
Plastic Bags	Extra Batteries
Tape	2-way radios, cell phones, and satellite phones

2) Evacuation Kits

Evacuation Kits are available for the purpose of providing Evacuation Teams with the necessary portable supplies for performing contamination surveys of evacuated site personnel and their vehicles. The Evacuation Kits are stored at Warehouse B (bldg. 113).

If the Site Emergency Coordinator recommends evacuating non-essential personnel on-site, the Evacuation Kits will be obtained by the Evacuation Coordinator and their monitoring staff prior to the evacuation.

Evacuation Kits Contents	
Barricade Tape	Decon Center Key
Batteries	Dose rate instrument
Instruction Binder containing procedures, forms and maps	Electronic Personal Dosimeters (0-1000R)
Bullhorn	Flashlight
Calculator	GM Probe, HP-210/260
Corporate 909 Key	Pens
Count rate instrument	Plastic Bags
Protective Clothing	Smears

3) Hospital Kit

Hospital kits containing portable instrumentation, protective clothing and rad protection supplies are stored at French Hospital in San Luis Obispo and Marian Medical Center in Santa Maria.

Hospital Kit Contents	
Barricade Tape	Markers
Batteries	Electronic Personal Dosimeters (0-1000R)
Count Rate Instrument	Rad Sign - 6 pocket
Disposable Coveralls	Rad trash tags
Dose rate instrument	Radiation and Contamination Survey Sheet (Form 69-20786)
Yellow/Magenta Tape, 2" width	Shoe Covers
Duct Tape	Smears
GM probe, HP 210/260 (or equivalent)	Ziploc bags
Latex Gloves	

4) Clothing

Clean overalls and shoe covers are stored with the evacuation kits on-site, at the PG&E Energy Education Center, and at the TSC for use in the event emergency worker evacuee clothing is contaminated.

7.5.9 Fire Detection and Trouble Alarm System

The Fire Detection and Trouble Alarm System uses heat detectors, flame detectors, and smoke detectors to provide the Control Room with an early warning of the existence and location of a fire or potential fire and in certain instances, initiates fire suppression systems.

In addition to the smoke and flame detection system, a vital equipment room temperature monitoring system provides indication of abnormally high compartment temperatures which may result from fire, ventilation system malfunction, or other equipment malfunctions. Individual components are equipped with the usual complement of trouble alarms, some of which (e.g., high temperature bearing alarm) can provide the operators with early warning of fire or potential fires.

7.5.10 Sampling and Analysis Capability

1) ~~Reactor Coolant~~Spent Fuel Pool Sampling

If emergency conditions require sampling of ~~reactor coolant~~SFP water, sampling may be performed by sampling ~~of the reactor coolant system and containment sump sampling systems~~the SFP sampling system. In addition to the normal plant laboratory facilities, the TSC has instrumentation for radiological analysis of the samples.

2) ~~Containment Atmosphere~~ Sampling

~~If emergency conditions require sampling of the containment atmosphere, the CASP containment atmospheric sampling system may be used. Equipment is provided to determine containment hydrogen. Dilute samples can be collected and prepared for counting. Radiological analyses are performed in either the normal plant laboratory facility or the TSC laboratory.~~

7.5.11 Miscellaneous Post Accident Assessment Instruments

1) ~~Containment Interior~~Spent Fuel Pool Area Radiation Monitoring

These detectors are part of the area and process monitoring systems and ~~include two high range gamma radiation monitoring instruments that have been provided to monitor post-accident radiation levels inside of the containment~~fuel handling building. ~~They utilize ion chamber detectors and have a range of 1.0 to 10⁷ R/hr.~~ The units read out and alarm in the Control Room. These units are supplied from ~~emergency AC, and are seismic design Class I, and are qualified for post-accident containment conditions.~~

The radiation level inside the ~~containment~~fuel handling building can also be estimated from outside the ~~containment~~fuel handling building using hand held instruments.

2) ~~Containment~~Spent Fuel Pool Water Level

~~Two wide range and one narrow range containment SFP water level recorders can be used to indicate water level from the bottom of the reactor cavity (elevation 64 feet) to elevation 98 feet. The volume of water these recorders will represent is greater than 600,000 gallons SFPs via the PPC. The indicators annunciate located in the Control Room.~~

3) ~~RCS Subcooling Monitor~~

~~RCS subcooling instrumentation is provided to determine margins to saturation pressure and temperature using reactor coolant system pressure and temperature instruments and incore thermocouples. A calculating microprocessor module powered from a vital bus is provided. A digital readout is provided on the main control board. The margin, in either degrees Fahrenheit or pounds per square inch, is displayed on a continuous basis. Low and low-low main annunciator inputs are provided.~~

4) ~~RCS Pressure Indication~~

~~Reactor coolant pressure transmitters on loop 4 and loop 3 of the RCS are provided. One transmitter has an indicator in the Control Room with a range of 0 to 3,000 psig. The other transmitter has a recorder with a range of 0 to 3,000 psig and an indicator with a range of 0 to 600 psig.~~

5) ~~3) RCS~~Spent Fuel Pool Temperature Indication

~~RCSSFP temperature is monitored via the PPC with both narrow and wide range instruments. Each RCS loop has one wide range hot leg RTD and one wide range cold leg RTD. The wide range RTDs are in the main loops and have a temperature range of 0-700F. The narrow range RTDs are in thermowells that protrude into the legs and have a temperature range of 530-630F. The RTDs have and annunciate in the Control Room readouts.~~

~~Also originally installed is a redundant, two train incore thermocouple system with readout on SPDS monitors in the Control Room, TSC and EOF. The number of operable thermocouples required per core quadrant is governed by the requirements given in the Technical Specifications. The incore thermocouple system is designed to Class 1E electrical requirements and uses microprocessor equipment to calculate and readout on the Post Accident Monitoring System (PAMS) monitors. Readout is also available on the plant computer and SPDS monitors.~~

6) ~~Containment Pressure Indication~~

~~Seven containment pressure indications are available in the Control Room (each uses its own transmitter):~~

~~a) During normal operation a single recorder with a range of -1 to +1.5 psig is utilized.~~

~~b) Four indicators are available with a range of -5 to +55 psig.~~

c) ~~To indicate higher containment pressure two recorders with a range of 5 to 200 psig are available.~~

d) ~~The instruments described in 2) and 3) are powered from vital electrical power supplies.~~

7.6 OFF-SITE MONITORING EQUIPMENT

7.6.1 Off-Site Geophysical Monitors

Off-site seismic observation and monitoring facilities in the coastal region are located at the University of California (Berkeley), California Polytechnic University (San Luis Obispo), California Institute of Technology (Pasadena), California Department of Water Resources (Sacramento), the U.S. Geological Survey (Menlo Park), and PG&E Geosciences Department (San Francisco).

7.6.2 Off-Site Meteorological Data

Data from off-site supplemental meteorological sites surrounding Diablo Canyon are available at the ~~Emergency Operations Facility (EOF)~~ and through the EARS central processing computer. The sites include seven surface meteorological sites located at Pt. Buchon, Los Osos, Foothill Blvd., Davis Peak, Energy Education Center, Grover Beach, and PG&E Service Center. Additional meteorological information that may be obtained on the PG&E Wide Area Network are: other PG&E power plants, off-site National Weather Service (NWS) data including upper air soundings at Vandenberg AFB, Oakland, San Diego, Las Vegas, Winnemucca and Medford, Oregon, and surface sites located in Monterey, Salinas, Paso Robles, Santa Maria, Santa Barbara, San Luis Obispo and Buoys EB11 and EB23. There are also additional surface meteorological sites available from central and southern California as well as the latest infrared and visual satellite images available at the EOF. Weather forecasts during Emergency Plan activation are available from the EOF, PG&E forecast office, NWS Los Angeles and Monterey.

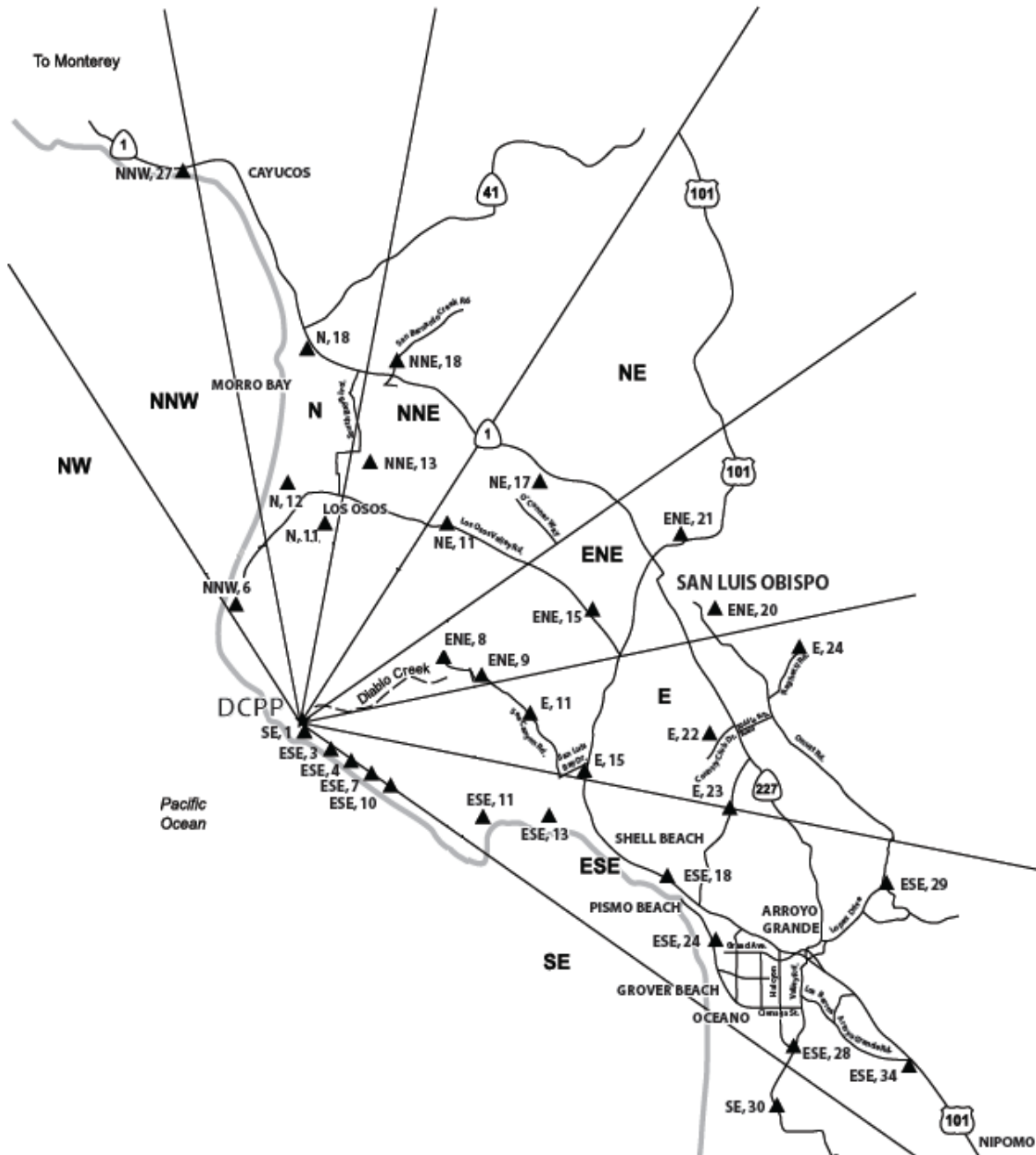
7.6.3 Environmental Direct Radiation Monitors and Air Sampling Devices

The Company has approximately thirty-five (35) direct radiation monitoring stations in the vicinity of the plant which are part of its ongoing environmental monitoring program. Each station is equipped with a thermoluminescent dosimeter. Fifteen (15) of these stations are located on-site and twenty (20) are located off-site.

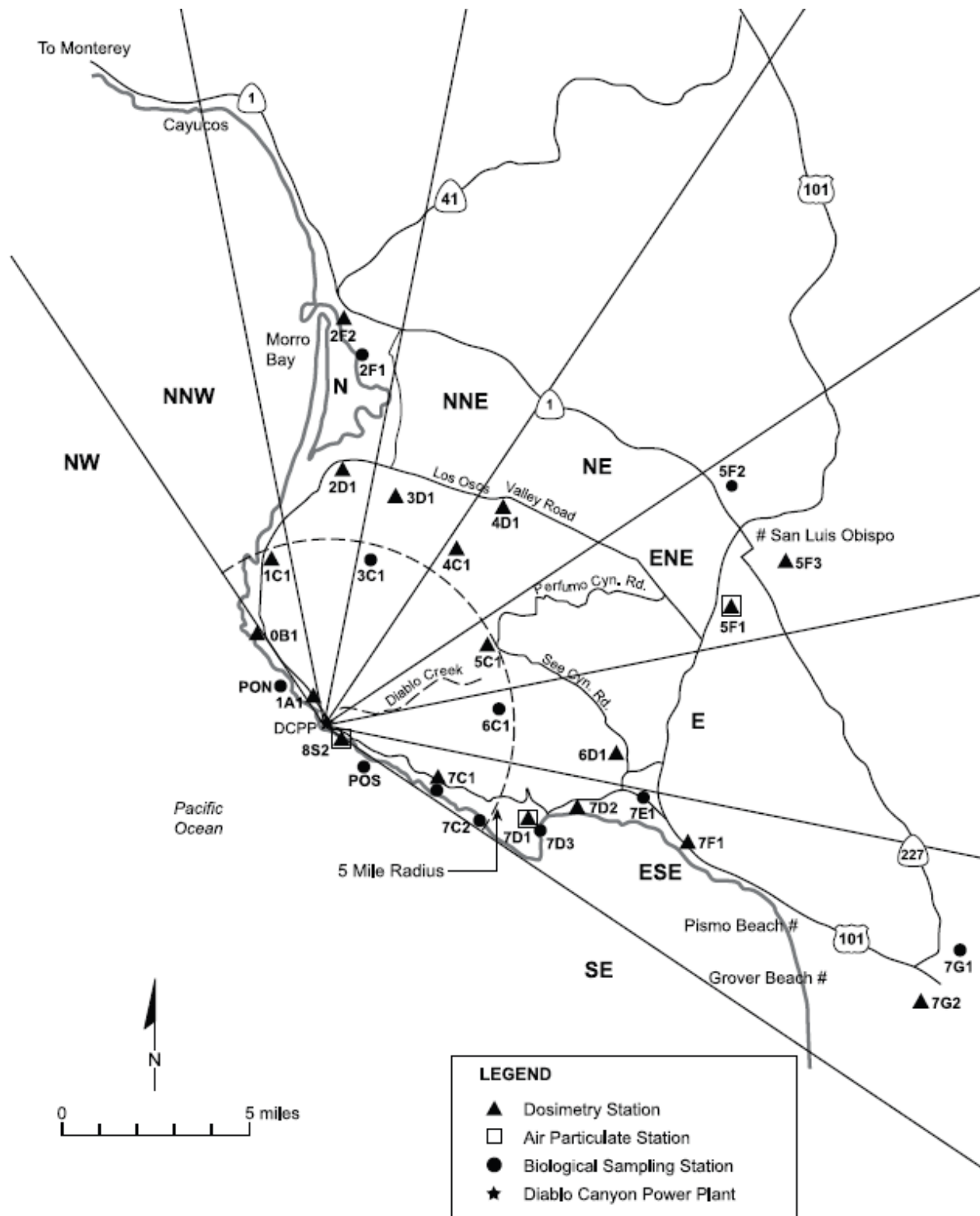
Twenty (20) of the stations are located in order to provide an inner ring of stations in the general area of the site boundary and an outer ring in the 4-5 mile range from the site with a station in each land sector of each ring. Since the site is on the coast surrounded by a hilly, generally inaccessible area, some areas of the site boundary and in the range of 4-5 miles are inaccessible. However, a monitoring station has been placed to the closest accessible location to the stated criteria. Some of the above monitoring locations are also equipped with an air sampler fitted with a particulate filter and iodine cartridge.

Maps of monitoring locations are shown below. Radiation monitoring stations located in Santa Barbara County in the cities of Orcutt, Lompoc, and Solvang are not shown on the map.

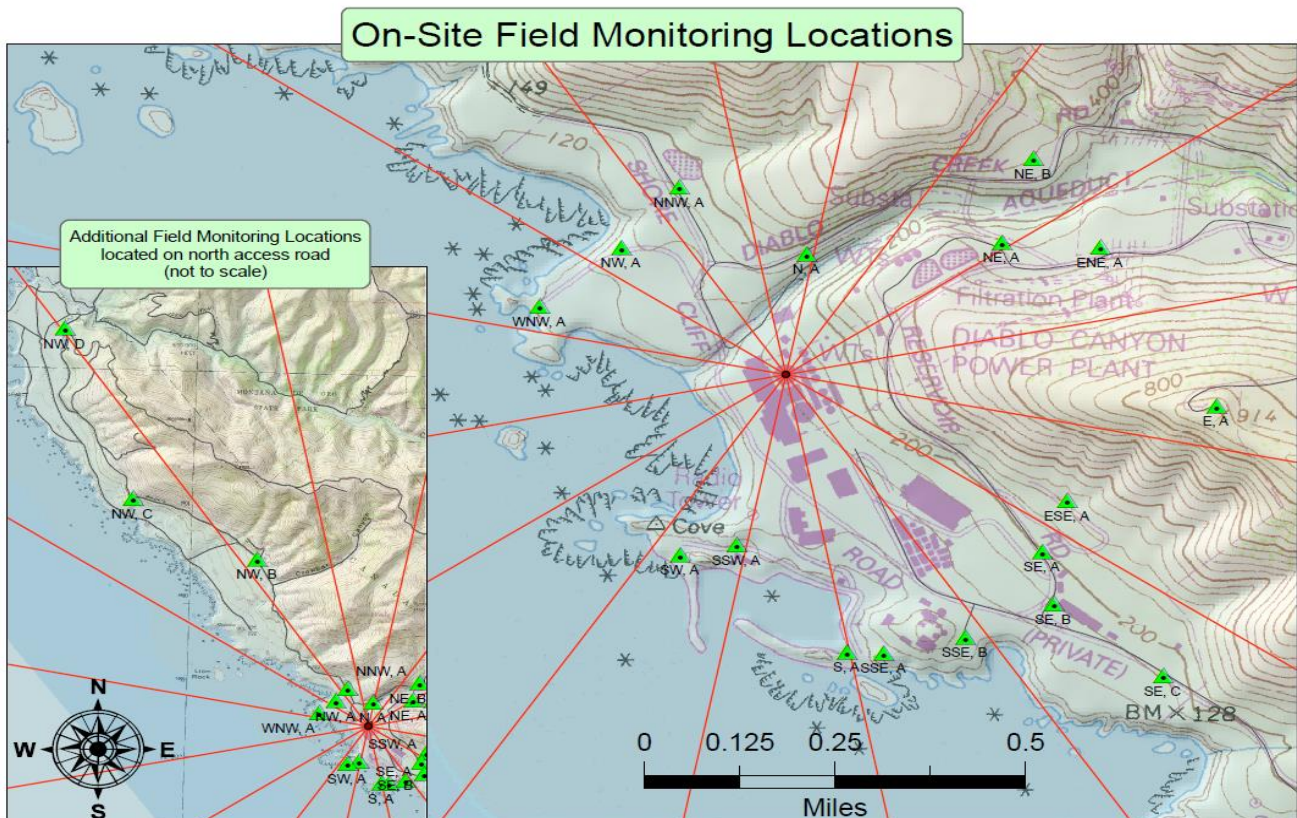
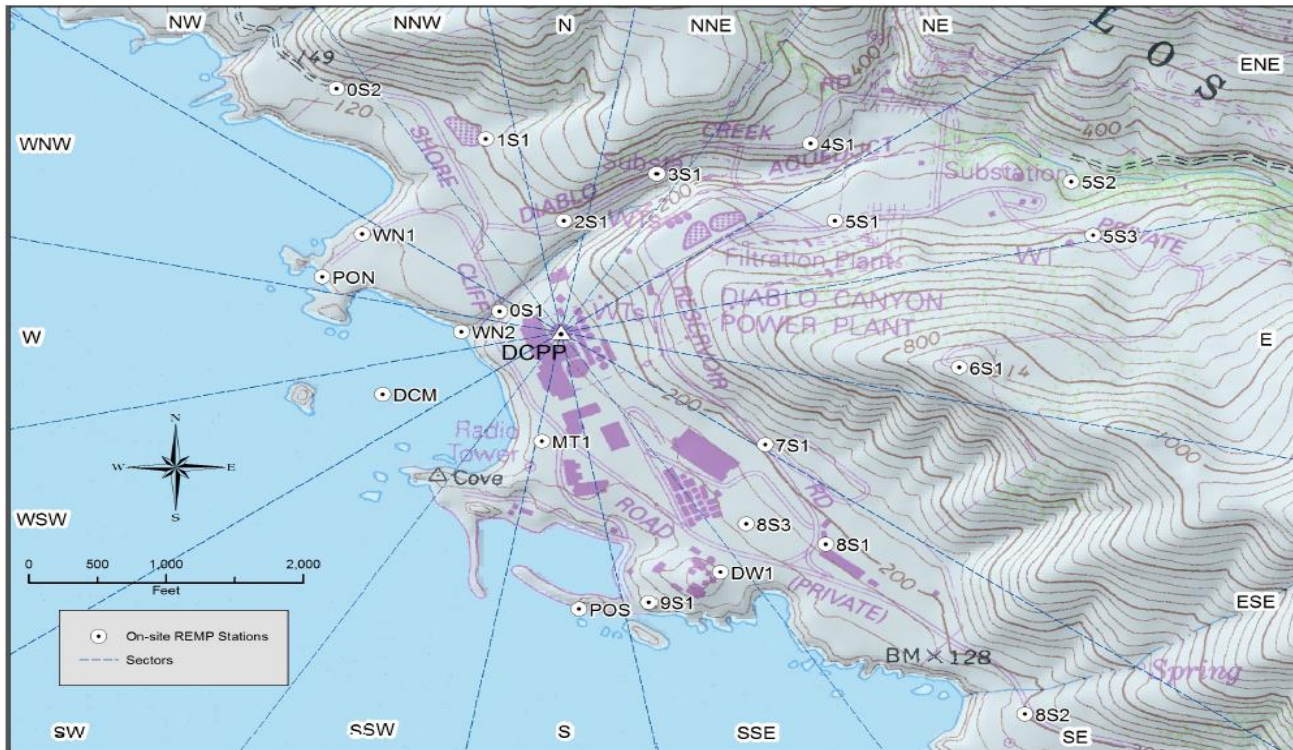
7.6.3.1 Emergency Off-Site Monitoring Locations



7.6.3.2 Off-Site Environmental Monitoring Stations

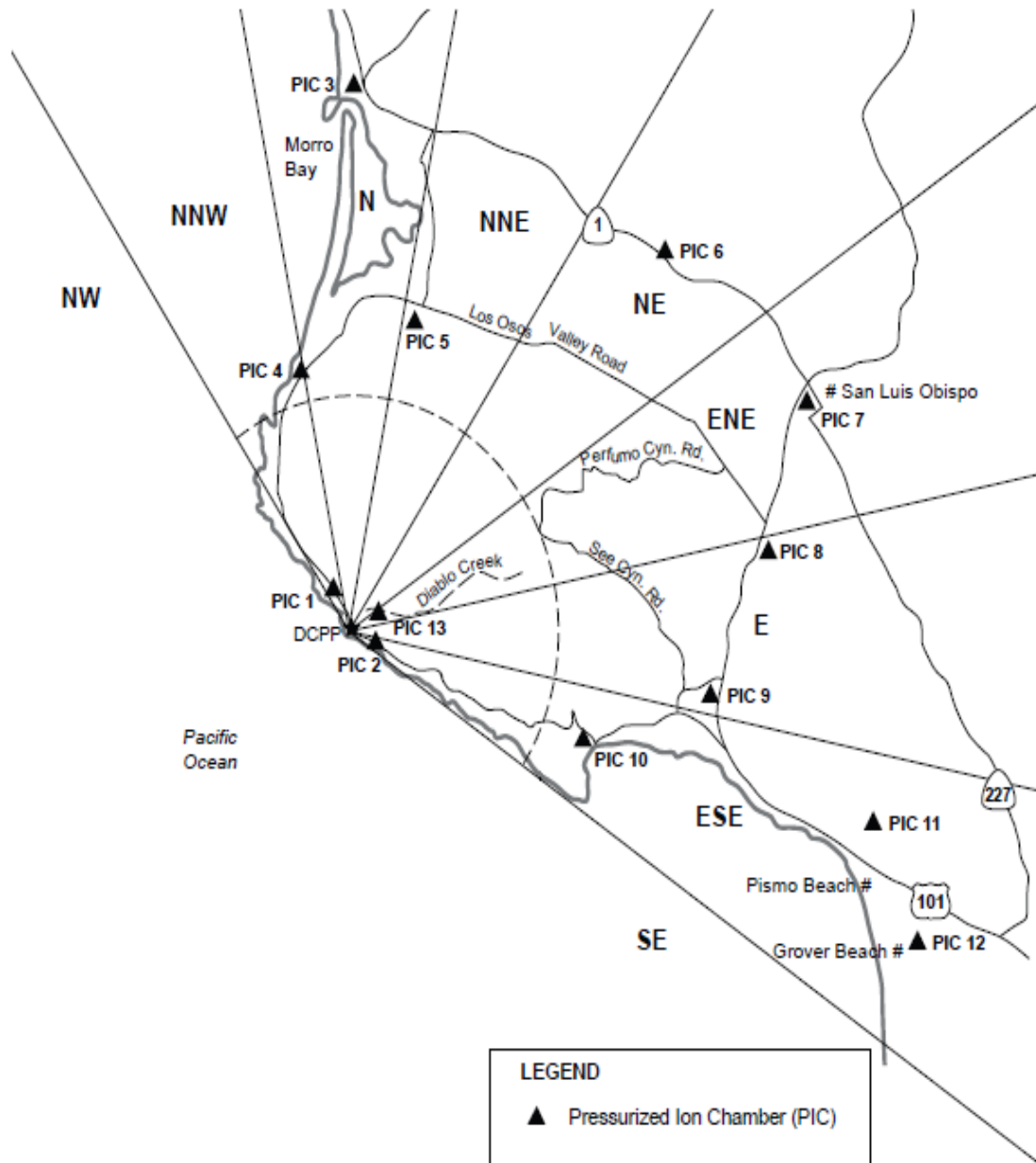


7.6.3.3 On-Site Monitoring Stations



7.6.4 Off-Site Radiation Monitoring System

The real-time radiation dose-rate monitoring system consists of thirteen low-level gamma radiation dose-rate monitors; ten are installed at the various population centers in the vicinity of ~~DCPP~~~~Diablo Canyon Power Plant~~, and three located on the power plant site as shown and listed below.



PIC #	Description
1	DCPP North Gate Guard Post
2	DCPP SSW Corner of Target Range (near on-site field monitoring location, SE, B)
3	Morro Bay Switchyard
4	Montana de Oro State Park. At the Park Ranger's residence, adjacent to the siren
5	South Bay Fire Department
6	Outside rear entrance to EOF (south side of building) (NE, 17)
7	SLO Police Department. Intersection of Santa Rosa Street and Walnut Street Behind fence SW of Walnut Street driveway.
8	SLO Service Center, 4325 So. Higuera St., SLO (OEL Garage).
9	PG&E Energy Education Center (E,15).
10	DCPP Front Gate
11	Pismo Beach at the PG&E Pismo Warehouse on Price Canyon Road, about 0.5 miles NE of the Price Street intersection. PIC is located in the upper parking lot.
12	SLO County Building, Grover Beach. Exit Hwy 101 at 4th street. Take 4th to Longbranch and proceed NE on Longbranch. County Social Services Building is on corner of 16th and Longbranch.
13	DCPP ENE near the Old Steam Generator Storage Facility and Fleet Garage

These monitors employ a pressurized ion chamber (PIC) detector for accurate measurement of low-level gamma radiation ranging from background readings up to 10R/hr. Real-time PIC data can be read locally on a graphic display. In addition, PICs are polled by the EARS data acquisition subsystem in the TSC and 1-minute averaged data is made available on the display computers in the emergency response facilities.

The purpose of the PIC system is to provide continuous measurement and reporting to PG&E, local and state agencies of gamma radiation dose rates in the environment around Diablo Canyon Power Plant so that informed decisions to protect the public can be made. The technical description of the real-time radiation dose-rate monitoring includes:

- 1) Detector Type and Operating Range
 - a) Type: PIC Environmental Radiation Monitoring Station
 - b) Range: 0 micro R/hr to 10 R/hr

NOTE: Other detector specifications such as accuracy, sensitivity and operating temperature range can be found in the applicable detector vendor technical manual.

- 2) Data Transmitted to EOF

The data is taken from the real-time monitors by the EARS central computer at the TSC and this data is available on display computers in the TSC and EOF. The Radiation Monitor Data Display Terminal (~~RMDDT~~) application on these computers is able to display map locations with all PIC station readings.

Monitor data will be stored in a database on the EARS central computer. Instantaneous readings are available within the previous 2 hours and one-hour averages are available on an annual basis.

Each monitor has a unique location number which is coded to prepared maps of different scales indicating exact locations of all monitoring stations. Each map can be displayed on the station's CRT's with monitor numbers overlaid at their respective locations and monitor data on one side of the map. The displayed map can also be transformed to hard copy on printer.

3) Detector Locations

The real-time radiation monitors locations were selected on the basis of three criteria. The first is the need to obtain radiation levels in the population centers surrounding ~~D_{CPP}iablo Canyon~~. The data received from the real-time monitors would not only provide routine background gamma radiation dose rate data but also gamma radiation dose rate in the event of a significant airborne release from ~~D_{CPP}iablo Canyon~~ to augment radiation data obtained by field monitoring teams. The second is the need to distribute the monitors over as many of the land based compass sectors as possible. The final criterion relates to the prevailing wind direction, wind speed and the topography in the area of the ~~D_{CPP}iablo Canyon Power Plant~~.

7.6.5 Off-Site Laboratories

Either of the following two off-site radiological laboratories may be used in the event of an emergency.

- 1) PG&E's Off-Site Emergency Laboratory (OEL) at the PG&E Service Center in San Luis Obispo
 - a) Location:
 - (1) PG&E San Luis Obispo Service Center, 4325 Higuera Street, San Luis Obispo, California.
 - b) Capabilities:
 - (1) Gamma Spectrum Analysis: 35 samples per 24-hour day; samples may be in the form of filters, cartridges, liquids and solids.
 - c) Equipment:
 - (1) Intrinsic germanium and/or sodium iodide detectors with associated electronics and desk top computer.
 - (2) Radio communications link with the Technical Support Center for voice transmission or analyses results.
 - (3) Portable health physics instrumentation.
 - d) Response Time:
 - (1) During normal hours - two hours following notification.
 - (2) During off-normal hours - two hours following notification.

- 2) Commercial Radiological Laboratory
 - a) Location:
 - (1) Charleston, SC.
 - b) Capabilities:
 - (1) Gamma Spectrum Analysis - 50 samples per 24-hour day; samples may be in the form of food, milk, water, air filters and iodine cartridges.
 - (2) Gross Alpha/Beta Analysis: 50 samples per 24-hour day; samples may be in the form of air filters and water.
 - c) Equipment:
 - (1) Intrinsic germanium detector with associated electronics and computer system.
 - (2) Liquid scintillation detectors.
 - (3) Gas proportional detector.
 - d) Response Time:
 - (1) During normal hours - staff existing at facility.
 - (2) During off-normal hours - two hours following notification.

7.6.6 Off-Site Emergency Laboratory (OEL)

Off-site field sample analysis equipment is stored at the PG&E Service Center in San Luis Obispo. The OEL analytical equipment is equipped with a gamma spectroscopy analysis and detection system, portable health physics survey equipment; communications equipment; and independent power supplies.

7.7 MISCELLANEOUS PROTECTIVE FACILITIES AND EQUIPMENT

7.7.1 Installed Smoke, Flame & Heat Detectors

Smoke, flame and heat detectors, which are located throughout the plant, are designed to give early warning of possible fire conditions. These detectors are annunciated on alarm panels in the Control Room.

When an alarm is received in the Control Room, a plant operator will be sent to investigate the cause of the alarm. If a fire condition exists, it should be reported by calling telephone extension 779. Fire suppression system alarms (i.e., sprinkler, deluge, CO₂ or Halon) also annunciate in the Control Room. These alarms could indicate a potential fire condition and shall be investigated in the same manner as any fire detection alarm.

7.7.2 Fire Detection by Personnel

Reporting of fires takes precedence over fighting a fire. Only personnel trained in firefighting equipment use should attempt to suppress a fire. The fire alarm signal system is the normal way to report a fire. The fire signal is initiated by dialing from any telephone on the plant site. The call goes to a Control Room Operator who receives information from the caller on a conference line. The fire alarm is sounded by a 30-second monotone sound. The alarm is followed by a public address system message with details about the fire.

The fire signal is a 30-second blast on the fire sirens.

When a fire alarm is sounded, the typical response is to perform the following duties immediately: The Fire Brigade can be made up of Industrial Fire Officers (IFOs) (i.e., Fire Captains and Fire Fighters) and Operations personnel. The Fire Brigade Leader can be a Fire Captain or a licensed operator that is Fire Brigade Leader qualified. A qualified ~~nuclear operator~~CFH or ~~licensed operator~~NCO will accompany the Fire Brigade Leader unless the Fire Brigade Leader is the ~~qualified nuclear operator~~CFH or ~~Licensed Operator~~NCO. (See DFSAR 9.5H.) The ~~Industrial Fire Officers (IFOs)~~ are professional fire fighters and makeup the rest of the Shift Fire Brigade for Fire, Rescue and Hazardous Material Emergencies. The Fire Captain is trained as a Fire Brigade Leader and has the primary role to support the Fire Brigade as an "Operations Officer" in the ~~Incident Command System (ICS)~~. The IFOs will be part of the 5 man Fire Brigade required by the DFSAR.

The designated Shift Brigade Members will don protective equipment, pick up radios, proceed to the fire and maintain communication with the Control Room while fighting the fire.

The Security Department will upon notification of a fire, send a security officer to report to the Fire Brigade Leader.

Security will assist with access and the staging of off-site fire response personnel including providing dosimetry and escorts as necessary. Security will also assist the fire brigade with security barriers and ensure that plant security is not compromised during the emergency response.

The Shift SupervisorSM/SEC will notify CAL FIRE, San Luis Obispo County Fire (CDF/SLO). If the telephone lines are unavailable, the CDF/SLO radio will be used.

Notification shall be made for any of the following conditions:

- All structure fires or any fire that presents a threat to personnel or plant systems.
- Report of smoke within a structure with no known source for the smoke.
- Any wild land fire.
- Any non-fire emergency that would require a CAL FIRE / County Fire rescue or hazardous materials response.
- Any time the Fire Brigade Leader or Shift SupervisorM/SEC recommends additional assistance.

~~DCPP~~Diablo Canyon control room staff will cancel or modify the original request by contacting the CAL FIRE Emergency Command Center using their 24-hour emergency phone line.

7.7.3 Plant Fire Detection and Suppression and Respiratory Protection

Plant fire detection and suppression systems and respiratory protection equipment are described in the DFSAR.

7.7.4 Halon 1301 Systems

Halon 1301 Systems are present in but not exclusive to the following:

- 1) Learning Center Building - There are Halon 1301 cylinders of various sizes set up to protect six different areas within the building. The areas are activated through either a manual pull-station or smoke detectors (photo-electric and ionization) that are cross zoned for automatic release. Full detector activation on the simulator area will open main power breakers for the simulator and the computer, close ventilation dampers and will delay a Halon release for 30 seconds after an alarm. Two different alarms will sound prior to discharge. The first is a ringing bell that is caused from an activated detector. The second alarm is a flashing strobe light and a horn that has been activated from a second detector. The second alarm will bring a discharge of Halon within 30 seconds.
- 2) The Administration Building - Halon system protects microfiches and sixth floor PC Network rooms and the 1st floor Telecommunication room. The discharging of halon is caused by detector activation in the same way as the Learning Services Building.
- 3) The I&C/Tele Com/Medical Building - The Halon system protects the second floor telecommunication room. Halon discharge is caused by detector activation in the same way as the Training Building.
- 4) Document Storage Building (Building 603) - Halon discharge is caused by detector activation.

7.7.5 Mobile Fire Fighting Equipment

Mobile fire suppression equipment is provided to support a fire brigade response to areas outside of the main plant structures including construction areas and surrounding wildland. This equipment meets or exceeds what is required by NFPA 600 to include fire engine pumper with water tank, hoses, foam, etc.

7.7.6 Respiratory Protection Equipment

Respiratory protection equipment as described in the DEFSAR (Table 12.3-3) is available for emergencies involving fires and airborne radioactive materials.

7.7.7 Self-Contained Breathing Apparatus^{T03689}

Pressure demand Self-Contained Breathing Apparatus units (SCBA) are available at the site. Locations and numbers are as follows:

<u>Location</u>	<u>SCBA</u>	<u>Extra 30-Minute Tanks</u>
TSC	10	0
Control Room	10	0
Fire Brigade (various locations)	18	16
Access Control	20	20
Storage (various locations)	50*	64*
Total	108	100

***NOTE:** Up to one-half of this number may be removed for servicing.

At a minimum, there are at least two locations on-site where SCBA bottles can be refilled. The capability to refill bottles inside and outside of the RCA is available. A portable air compressor capable of refilling exhausted breathing air bottles is also available.

7.7.8 Constant Flow Air Line Respirators

The plant employs oil-free air compressors. As a result, the plant service air system can be used to supply breathing air. Approximately 20 MSA "clearvue" full facemasks outfitted as constant flow airline respirators are available. Duo-flow regulators allow the respirators to be used with HEPA filtration or as a constant flow system.

The regulators of these facemasks require a supply pressure of 35 to 40 psig. Since plant air supplies are at a higher pressure than this, pressure regulator boxes are used between the supply and the facemask. These boxes have manifolds where up to four separate air hoses can be plugged into the pressure regulated air. Approximately 10 of these regulator boxes are available at the site. Low pressure alarms are available to let the monitor know when pressure drops below the setpoint.

7.7.9 Radiological Protective Clothing

The plant is stocked with a considerable supply of protective clothing for normal personnel use when working in radiologically controlled areas of the plant. Typically, sufficient clothing is available for about 500 people.

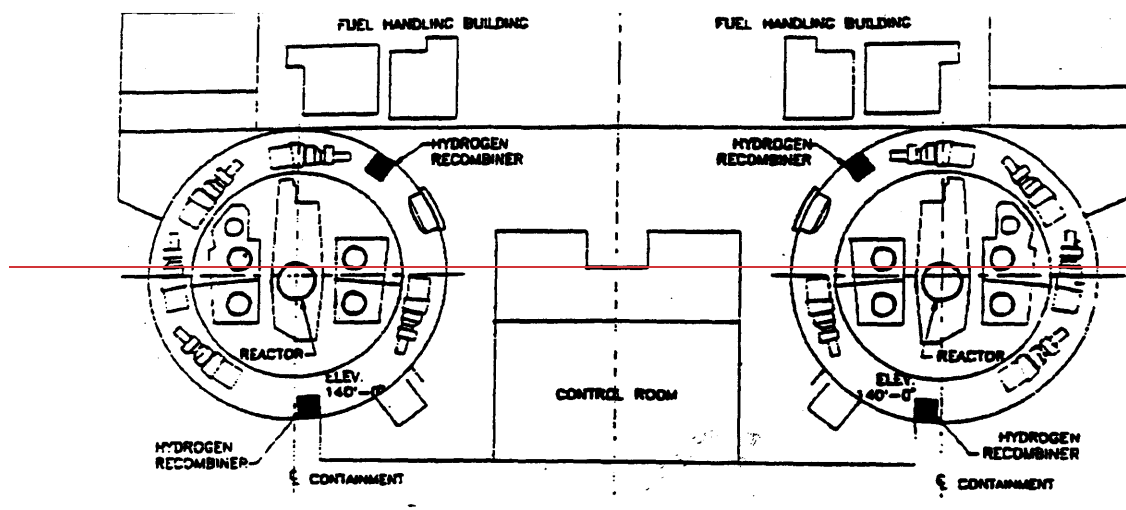
~~7.7.10 Containment Hydrogen Recombiners~~

~~The electric hydrogen recombiner system consists of two completely independent subsystems. Each subsystem is capable of providing the required hydrogen removal capacity.~~

~~Each subsystem consists of a recombiner unit, which is located in the plant containment building at elevation 140', and a control panel and power supply. The latter two components are located outside the containment in the Auxiliary Building which is an accessible structure following a loss-of-coolant accident (LOCA). Connections external to the containment for removal of hydrogen gas from inside containment by portable recombiner units are provided on the post-accident hydrogen purge system containment penetrations.~~

~~Each recombiner unit is a constant volume device with a flow of 100 cfm. It has a minimum hydrogen removal rate equivalent to a removal efficiency of 98 percent with a process gas hydrogen concentration of 4 percent.~~

~~The recombiner unit consists of an inlet preheater, a heater recombination, and an exhaust chamber. The unit is completely enclosed and the internals are protected from impingement by containment spray. The inlet and outlet ports are louvered to minimize moisture entering the unit.~~



7.7.11 Permanent Lighting Systems

The plant is provided with independent lighting systems:

1) Normal AC Lighting

Normal lighting is operated at 208/120 volts supplied from the 480-volt system. The DC emergency lighting is supplied at 125 volts from two of the station batteries and is limited to a period of approximately two hours. This lighting is located principally in control and electrical equipment rooms, stairways, exits and entrances, corridors, and passageways.

2) Emergency AC Lighting

The AC emergency lighting is supplied from two vital 480-volt buses. It is located throughout the plant to provide minimum lighting. The AC emergency lighting is routed in separate conduits from the normal AC lighting.

3) Emergency DC Lighting

The DC lights are also in separate conduits in vital operating areas of the auxiliary building.

After the diesel generators start and the single phase AC emergency transformers receive power, the DC emergency lights are automatically relayed off. An overlapping time delay keeps the DC lights operating while the AC emergency lights return to service.

Lighting panels and circuits breakers were tested by the supplier to satisfy seismic requirements. Lighting panel wall attachments have been calculated to be adequate for seismic loads. Conduit supports have adequate seismic supports. The standard fixtures for DC lights are direct mounted to building surfaces, and are therefore subject to building seismic forces. The fixtures will not experience appreciable amplification of seismic forces.

7.7.12 7.7.10 Portable Lighting

Numerous battery-powered lanterns and flashlights are maintained at various locations for normal and emergency use. Additional units are maintained as stock items in the warehouse.

~~7.7.13~~7.7.11 Transportation

~~7.7.13.17~~7.7.11.1 Plant Vehicles

There are several types of vehicles at the plant site, which can be used to provide emergency transportation. These include:

1) Two-wheel drive vehicles

There is a variety of two-wheel drive vehicles, including pickup trucks, at the plant site for general use and may be made available for use during an emergency.

2) Four-Wheel Drive Vehicles

Four-wheel drive vehicles are provided for use at the plant site. These vehicles may be used by the radiological monitoring teams to obtain field measurements in rugged terrain.

~~7.7.13.27~~7.7.11.2 Ambulance

Prior arrangements exist with local ambulance services in San Luis Obispo for on-site service. The agreements include transportation of contaminated victims if required.

~~7.7.13.37~~7.7.11.3 Off-Site Company Vehicles

The Company has a fleet of automobiles and trucks in its San Luis Obispo service area which can be mobilized in an emergency if required.

~~7.7.13.47~~7.7.11.4 Air Transportation

The Company has air transportation capability available for emergency use.

The Company also has access to a variety of charter aircraft and helicopter companies for emergency use, including transportation of contaminated victims using an enclosed type litter.

~~7.7.13.57~~7.7.11.5 Other Modes of Transportation

The Company owns and maintains two marine crafts at the ~~DCPP~~Diablo Canyon Power Plant. These vessels may be available for personnel transport in the event road access is unavailable.

7.7.14 7.7.12 Alternative Facilities

Alternative facilities are established to function as a staging area for augmentation of emergency response staff. The facilities are accessible even if the site is under threat of or experiencing hostile action. The facilities have the capability for communication with the ~~EO~~Emergency Operations Facility, Control Room, and plant security; the capability to perform offsite notifications; and the capability for engineering assessment activities, including damage control team planning and preparation, for use when onsite emergency facilities cannot be safely accessed during hostile action.

The alternative facilities are located a safe distance from DCPD. This distance supports rapid response to the plant when accessibility is restored.

7.8 FIRST AID AND MEDICAL FACILITIES

The facilities for medical attention and personnel decontamination are located in the Building 102 Medical Facility immediately to the west side of the Unit 1 Turbine Building. Access to the ~~Radiological Controls Areas (RCA)~~ of the plant can be accomplished on foot or with the site emergency vehicle. Off-site ambulances can also readily access the Medical Facility or the RCA. Decontamination effluent generated at the Medical Facility is contained for proper disposal.

The DCPD Medical Facility provides routine occupational medical care as well as emergency care for sick or injured personnel. ~~During normal business hours, a physician's assistant is in charge.~~

Emergency medical service is available 24 hours a day, seven days a week by registered nurses or trained EMTs.

7.8.1 Personnel Decontamination Facilities

A decontamination room is provided at Access Control on elevation +85' of the Auxiliary Building, which has a sink and shower that drain to the liquid radwaste laundry collection tanks. Various decontamination aids are provided, such as brushes, skin decontamination soaps, rubber gloves, creams, wiping tissues, towels, etc. Monitoring instrumentation is readily available from the access control instrument storage.

7.8.2 First Aid Kits and Stretchers

Standard Company first aid kits and basket stretchers are placed at various locations throughout the plant.

7.8.3 Whole Body Counters

The plant maintains at least two computer-based whole body counters. Models may include a vertical counter with a sodium iodide (NaI) detector or an IGE bed counter, which if circumstances require, can be configured as a NaI bed counter.

7.9 CROSS REFERENCE TO NUREG-0654

NUREG-0654	DCPP Emergency Plan	NUREG-0654	DCPP Emergency Plan
C.1.a to c	N/A	H.6.b	7.6.3, 7.6.4, 7.6.52d)(2)
C.3	7.5.5, 7.6.52d)(2)	H.6.c	7.5.5, 7.5.8, 7.6.5, 7.6.6
C.4	N/A	H.7	7.5.6.1, 7.5.8, 7.6.3, 7.6.4
E.6	7.4	H.8	7.5.2
F.1.a	7.2.4, 7.2.5, 7.2.7, 7.2.11	H.9	7.1.4
F.1.b	7.2.4, 7.2.5, 7.2.6, 7.2.7, 7.2.10, 7.2.11, 7.2.12	H.10	N/A
F.1.c	7.2.4, 7.2.5, 7.2.7, 7.2.9	H.11	7.5.7, 7.5.8, 7.6.52d)(2), 7.7.3, 7.7.5, 7.7.9, 7.8.1, 7.8.2
F.1.d	7.2.1, 7.2.2, 7.2.4, 7.2.5, 7.2.6, 7.2.7, 7.2.10, 7.2.11	H.12	7.1.3, 7.1.5, 7.6.52d)(2)
F.1.e	7.2, 7.3.1	I.2	7.5.2, 7.5.3, 7.5.4, 7.5.7, 7.5.10
F.1.f	7.2.7, 7.2.9	I.3.b	7.5.3, 7.5.4, 7.5.6, 7.5.6.1
F.2	7.2.1, 7.2.11	I.4	7.5.6.1
F.3	N/A	I.5	7.5.2, 7.5.6.1
G.3.b	7.1.5.1	I.7	7.5.8, 7.6.3, 7.6.4
H.1	7.1.3, 7.1.4	I.9	7.5.8, 7.6.3
H.2	7.1.5	I.10	7.5.6.1, 7.6.6
H.5	7.5	J.10.a	7.5.6.1, 7.6.3, 7.6.4
H.5.a	7.5	J.10.c	7.4
H.5.b	7.5.3, 7.5.4, 7.5.5, 7.5.6, 7.5.6.1, 7.5.8, 7.5.10	K.5.a and b	7.5.8, 7.8.1
H.5.c	7.5.4, 7.5.10, 7.5.11	K.7	7.1.6, 7.8.1
H.5.d	7.5.9	L.2	7.8.2
H.6.a	7.6.1, 7.6.2	L.4	7.7.11

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8. MAINTAINING EMERGENCY PREPAREDNESS

The ~~DCPP~~Diablo Canyon Power Plant emergency preparedness program consists of:

- Personnel training
- Participation in scheduled drills and exercises
- Regular Emergency Plan review and evaluation by company specialists and PG&E management.

The Chief Nuclear Officer is the individual charged with overall authority and responsibility for emergency preparedness planning and training of Company emergency response personnel for DCP. The administrative duties of managing the routine personnel training and updating the Plan, its appendices and the associated procedures are delegated to the Emergency Planning Manager. The Emergency Planning Manager is assigned the collateral duty of offsite emergency planning coordination with local government agencies. In this capacity, he provides support to training programs involving non-company support agencies.

8.1 TRAINING OF PLANT STAFF PERSONNEL

Plant personnel participate in a program of lectures, demonstrations, written assignments, Computer Based Training, and drills designed to familiarize them with fire protection and emergency procedures, and radiation protection principles. First aid techniques are offered and made available to those site personnel requesting it. Except as noted, courses are conducted by qualified plant personnel. At least once each calendar year, each member of

the Emergency Preparedness staff is involved in training/professional development activities.

8.1.1 General Employee Training

All personnel receive instruction on the fundamentals of radiation protection, emergency signals and response, and site rules and regulations.

Additional instruction, as required based upon level of access, is provided in the basics of quality control, fire protection, industrial safety and contamination control, to those individuals who will be granted plant protected/vital areas access. Requalification is required on an annual basis for those individuals permitted protected/vital area access.

8.1.2 Emergency Plan Training

Emergency Plan training is incorporated into everyone's training program at the appropriate level. This training includes descriptions of the emergency categories, emergency response organization, facilities, and extent of emergency response.

Personnel assigned to specific emergency response organization positions receive additional, specialized radiological Emergency Plan training. This instruction is advanced, task specific training, designed to provide each site emergency organization position with the skills/knowledge required for the performance of emergency response tasks.

The positions in the site emergency response organization include the following categories:

- Coordinators of the response organization (Site Emergency Coordinators)
- Personnel responsible for accident assessment (Radiological Advisor, ~~Shift Technical Advisor~~) Radiological monitoring teams and radiological analysis personnel (Health Physics Technicians ~~and Radiological Data Processors~~)
- Security (Security Advisor, Security Force)
- Repair and damage control/correctional action teams (~~Maintenance Coordinators, Team Coordinator~~ OSC Director)
- Personnel responsible for transmission of emergency information and instructions (~~Communications Advisor, Agency/ENS Communicator, Ops Communicator, Communications Coordinator, Offsite Communicator~~)

Re-qualification is required on an annual basis for those personnel with specific assignments in the emergency response organization.

8.1.3 Emergency Operating Procedures

~~All plant operators above the level of Nuclear Operator~~ CFHs, plus selected members of the engineering staff, receive training under the provisions of NRC licensing 10CFR 50.120 requirements. This instruction, ~~provided in the Licensed Operator and Senior Operator Training and Retraining Programs,~~ includes nuclear power fundamentals, plant systems, operating practice, procedures and experience, and ~~simulator~~ training for normal, transient and emergency operation of the plant. Re-qualification is required on an annual basis.

8.1.4 Fire Protection

In addition to the general fire protection training provided to individuals as part of General Employee Training, members of the plant Fire Brigade receive instruction in firefighting tactics, procedures and practical firefighting as part of the Fire Brigade and Emergency Response Training Program, in accordance with Fire Protection Program requirements.

8.1.5 First Aid and Accident Prevention

The first aid and accident prevention program is an integral part of Company activities at ~~DCPP~~~~Diablo Canyon~~. First aid training includes cardiopulmonary resuscitation instruction for requesting plant employees. Accident prevention meetings are conducted on a continuing basis for plant employees. New employees receive an industrial safety orientation program.

8.1.6 Retraining

Retraining is required, on an annual basis, for those personnel with emergency response assignments. Participation in drills and exercise may satisfy some course retraining requirements if a person's performance is satisfactory.

8.2 TRAINING OF OFFSITE PERSONNEL

8.2.1 Corporate Support Personnel

Corporate support personnel are assigned emergency functions which are extensions of their regular duties and minimal training is required. Where persons may be required to fulfill new or unique tasks, special training will be provided as discussed in the PG&E Corporate Emergency Plan.

8.2.2 Non-Company Support Agencies

The development of training programs for individuals from offsite agencies is primarily the responsibility of the agency involved. This is particularly true in their areas of technical competence. The Company provides supplemental training on radiation protection, offsite monitoring, and other topics related to the Emergency Plan for agencies that require and request it. Normally this training will be scheduled on an annual basis. Examples of these programs include:

- 1) Company personnel contact local support services personnel, such as the County Emergency Services Coordinator, Sheriff, Marian and French Hospitals, San Luis Ambulance, and the CALFIRE/County Fire on an annual basis to reaffirm the arrangements of the Emergency Plan. The need for special training programs is discussed at these meetings.
- 2) Selected physicians at Marian and French Hospitals, as well as other selected local physicians are provided training based on ~~Radiation Emergency Assistance Center/Training Site~~ (REAC/TS) courses in the handling of radiation accidents. The physicians are provided an option to also attend classroom training at the REAC/TS facility conducted by the Oak Ridge Associated Universities.

- 3) Company or contracted personnel conduct periodic training seminars in monitoring, decontamination, and other radiation protection topics for emergency room personnel at Marian and French Hospitals.
- 4) CALFIRE personnel that respond to emergencies at DCPD involving radiation hazards receive initial and annual training. The initial training includes radiation protection training and a tour to review plant layout and target hazards. Refresher training includes radiation protection training.
- 5) The Company assists the County Public Health Department to train personnel in the use of environmental radiological monitoring equipment and radiological dose assessments.

8.2.3 Public Education

Educational information is distributed to the public within the **Emergency Planning Zone (EPZ)** regarding warning procedures used in a major emergency and the protective actions that may have to be taken by the public.

- 1) Emergency information describing DCPD, radiation and its health effects, warning procedures and protective actions is revised and distributed annually to persons residing or doing business in the Emergency Planning Zone (e.g., telephone book, calendar). Additional information describing warning procedures and protective actions is distributed to all residents in the EPZ. The public is advised that information is available separately for those without phone books.
- 2) Siren information stickers are distributed to all businesses, hotels, motels and places of public assembly within the EPZ. The stickers advise tuning into a local TV or radio station if a steady siren sounds for 3 to 5 minutes.
- 3) When requested, trained spokespersons present information on warning procedures and protective actions to civic and other groups throughout the Emergency Planning Zone.
- 4) Information on warning procedures and protective actions are presented to key groups within the Emergency Planning Zone.

Those businesses and organizations accommodating transient populations are provided with siren information stickers. Signs telling what to do if sirens sound have been posted in parks and scenic locations within the EPZ.

- 5) News media staffs (Editors, reporters, newsroom personnel, etc.) are offered special programs annually to acquaint them with the power plant and its characteristics, emergency plans, radiation and radioactive effects and points of contact for public information releases in an emergency.
- 6) Copies of printed material are available at the PG&E district office, the PG&E Energy Education Center, and the SLO County Office of Emergency Services.

8.3 DRILLS AND EXERCISES

Periodic drills and exercises involving both onsite and offsite emergency organizations are conducted to provide assurance that a high level of familiarity with the Emergency Plan is maintained and to expose any weakness in its execution. Drills are conducted to maintain emergency response skills and to update skills when modifications to the Emergency Plan or equipment require. During drills, if appropriate, on-the-spot correction of incorrect performance is made and demonstration of the proper performance offered by the instructor.

The nuclear generation vice president along with other key supervisory personnel from both the plant staff and other participating offsite organizations is responsible for planning and scheduling drills and exercises. Following the drill or exercise, observers and principal participants from all agencies involved will meet to critique emergency response. Whenever drills or exercises involve participation of offsite agencies, particular emphasis will be placed on the review of the coordination between the Onsite Emergency Organization and communication links and notification procedures of offsite emergency organizations.

8.3.1 Drills

Emergency response capabilities are maintained during the interval between biennial exercises by conducting drills. During these drills, activation of all of the ERFs (TSC, OSC, EOF, and JIC) is not required, and instruction is permitted. County and State agencies may participate in these drills.

A drill is a supervised instruction period aimed at testing, developing and maintaining skills in a particular operation. Specifically, drills are intended to test the capability to respond and perform assigned emergency functions. Drills can be combined for actual execution, i.e., a Medical Drill or Health Physics Drill may be combined with a full-scope drill.

1) Communication Drills

- a) Communications with San Luis Obispo County Sheriff and State of California ~~Office of Emergency Services (OES)~~ response centers will be tested at least monthly.

Routine telecommunication checks from the Control Room are conducted with the County Sheriff's office and State OES on a weekly basis in addition to the communications drill.

- b) Communications between applicable DCPD emergency facilities and field assessment teams will be tested annually.
- c) Communications between applicable DCPD emergency facilities and the Corporate Emergency Operations Center will be tested annually.

2) Fire Drills

Fire drills are conducted in accordance with Fire Protection Program requirements.

3) Medical Emergency Drills

A medical emergency drill involving a simulated contaminated individual who is transported by ambulance to a medical facility will be conducted annually.

4) Radiological Monitoring Drills

A plant environs and radiological monitoring drill will be conducted annually. This drill will include collection and analysis of environmental sample media (e.g., water, vegetation, soil and air) and provisions for communication and record keeping.

5) Health Physics Drills

a) Health Physics drills will be conducted semi-annually which involve response to, and analysis of, simulated elevated airborne and liquid samples and direct radiation measurements in the environment.

~~b) Demonstration of the core damage assessment methodology will be included in drills annually.~~

6) Ingestion Pathway Zone (IPZ) Drills

At least once every exercise cycle, an IPZ drill will be conducted with California State participation.

7) Hostile Action Based (HAB) Drill

At least once every exercise cycle, an HAB drill will be conducted with offsite, including state and country, participation.

8) Augmentation Drill (ERO Response and Facility Activation)

ERO augmentation shall be demonstrated as part of the biennially evaluated exercise.

9) Off-hours Drill

An off-hours drill, between 6:00 p.m. and 4:00 a.m., shall be conducted at least once per eight-year cycle.

10) Unannounced Drill

Some drills and exercises should be unannounced.

8.3.2 Exercises

1) An exercise is an event testing the integrated capability, and a major portion of the basic elements, existing within emergency preparedness plans and organizations.

2) Full-scope team drills that involve County and State participation meet the criteria for an "exercise" as defined in NUREG 0654.

The participation of State and local governments in an emergency exercise is not required to the extent that the applicant has identified those governments as refusing to participate. In such cases, an exercise shall be held with the applicant or licensee and such governmental entities as elect to participate in the emergency planning process.

- 3) An evaluated exercise will be conducted biennially. In the evaluated exercise, County and state personnel and resources will be mobilized to verify the adequate capability to respond to an accident scenario. Evaluated exercises shall include a Site Area Emergency or General Emergency classification.

The evaluated exercise will be evaluated by the NRC and FEMA sponsored observers and evaluators. The scenario for the evaluated exercise shall be submitted to the NRC per 10 CFR 50.4 for review and verification at least 60 days prior to the exercise as well as to FEMA (when applicable).

- 4) The scenario should be varied from year to year such that all major elements of the plans and preparedness organizations are tested within an eight-year period. This will include provisions for an off-hours exercise/drill. Some exercises/drills should be unannounced.

Drill and exercise scenarios shall be conducted in a manner to provide reasonable assurance that anticipatory responses will not result in preconditioning of participants. Scenarios shall include a wide spectrum of radiological releases and events, including hostile action.

- 5) Exercises shall provide the opportunity for ERO teams to demonstrate key skills specific to emergency response duties. Additionally, in each eight calendar year exercise planning cycle, content of scenarios shall vary to provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to respond to the following scenario elements:
- Hostile action directed at the plant site
 - No radiological release or an unplanned minimal radiological release that does not require public protective actions
 - An initial classification of or rapid escalation to a Site Area Emergency or General Emergency
 - Implementation of strategies, procedures, and guidance developed under § 50.54(hh)(2)
 - Integration of offsite resources with onsite response
- 6) Remedial exercises may be required if the Emergency Plan is not satisfactorily tested during the biennial exercise, such that the NRC, in consultation with FEMA, cannot:
- a) Find reasonable assurance that adequate protective measures can be taken in the event of a radiological emergency or,
 - b) Determine that the ~~Emergency Response Organization (ERO)~~ has maintained key skills specific to emergency response.

8.3.3 Scenario Development

Scenarios for exercises and drills are to be varied to cover all elements of the plans and their implementing procedures and to train the response organization. Federal documents provide guidance on the time-of-day, weather, frequency, free-play flexibility and pre-announcement criteria to be imposed.

As a minimum, each event scenario shall include the following:

- 1) The basic objectives of each drill and exercises and appropriate evaluation criteria;
- 2) The dates, time period, places and participating organizations;
- 3) The simulated events;
- 4) A time schedule of real and simulated initiating events;
- 5) A narrative summary describing the conduct of the exercises or drills to include such things as simulated casualties, offsite fire department assistance, rescue of personnel, use of protective clothing, deployment of radiological monitoring teams, and public information activities, and
- 6) A description of the arrangements for and advance materials to be provided to official observers.

Scenarios are to be developed by the Company in conjunction with the County authorities. In each case, they are to be developed and administered by third parties to the actual exercise. Scenarios for exercises which are to receive FEMA evaluation and approval require prior approval by the Federal Regional Advisory Committee ~~(RAC)~~, Region IX.

8.4 EMERGENCY PLAN AND PROCEDURES

8.4.1 Review and Updating

The DCPD Emergency Plan is reviewed and updated annually. The intent of the review is to update and improve the Plan based on plant changes, drills and exercises results, and assess onsite capabilities. Based on that review, the associated implementing procedures are updated as necessary. Following any revisions to the Emergency Plan, all participating agencies in the total emergency organization which are affected by the revisions are apprised of the changes through the distribution provided by the document control system. The Emergency Planning Manager maintains documentation substantiating the annual review and updating.

Independent assessments of the various aspects of the emergency preparedness program are conducted every twelve months in accordance with 50.54(t). The independent assessment includes, but is not limited to, the Emergency Plan, implementing procedures, training, drills, exercises, procedures, readiness testing, equipment, and interfaces with State and Local organizations. The results of the independent assessment, along with recommendations for improvements, are documented and reported to DCPD management. The independent assessment report involving the evaluation for adequacy of interface with State and Local governments is made available to those governments. The results are considered by management in modifying aspects of the Plan. In addition, telephone

numbers referenced in the DCPP ~~Emergency Plan Implementing Procedures (EPIPs)~~ and the Nuclear Emergency Response Communications Directory (~~NERC~~) are reviewed quarterly to ensure up-to-date contact numbers and notification lists.

Changes are made in accordance with 50.54(q) and a record of all changes to the Emergency Plan determined to reduce its effectiveness are retained for the life of the plant.

8.4.2 Document Control

The Emergency Plan is included in the plant manual, Volume 11. Revisions to the Plan will be controlled and distributed by the plant staff in accordance with plant document control procedures. This process requires review by the Plant Staff Review Committee (~~PSRC~~) and approval of the nuclear generation vice president or Station Director. Changes will be issued periodically in the same manner to incorporate important modifications and information pending the issuance of a new revision.

Documentation of the activities required for Emergency Plan maintenance shall be in accordance with the standard practices defined by the Administrative Procedures, Volume 1 of the Plant Manual.

Changes and revisions will be issued to holders of Controlled Copies according to the distribution list maintained by Procedure Services.

8.5 IMPLEMENTING PROCEDURES

Each new Emergency Plan implementing procedure or procedure revision shall be reviewed, approved, maintained, and rescinded in accordance with plant administrative procedures.

Approval of new Emergency Plan implementing procedures or revisions shall be by the Station Director, or his designee. If approved by a designee, the designee shall be knowledgeable in the procedure's subject area and shall meet the experience requirements of ANSI/ANS 3.1-1978 for Plant Managers.

8.5.1 Temporary Changes to Procedures

Temporary changes to Emergency Plan implementing procedures may be made in accordance with plant administrative procedures.

8.6 LETTERS-OF-AGREEMENT

Written agreements are in place for local participating organizations that identify the emergency measures to be provided and when assistance will be requested (including during hostile actions). Letters-of-agreements, memorandum-of-understandings and legal documents contain, as a minimum; a description of responsibility, when the support or service will be provided, and how the support or service will be initiated. Local participating emergency organizations with which a letter-of-agreement has been signed will be contacted on an annual basis to certify continuing support of the agreement. Emergency support organizations that have an approved contract will be contacted prior to contract expiration. Contracts will be reviewed on an annual basis to ensure they are current.

In general, letters-of-agreements are appropriate for organizations that are expected to respond in a declared state of emergency. To be specific, if the DCPPE Emergency Response Plan or any of its appendices identifies an organization from which a particular service or response is required, then documentation must exist that there is prior recognition by both parties that a prompt, effective response will be initiated. Concurrently, documentation must clearly point out the degree of emergency preparedness that response organization must continuously maintain in order to be capable of carrying out the obligation when the mobilization request occurs.

The letter-of-agreement should have as a primary purpose the identification of points of contact and telephone numbers for requesting assistance and verifying requests.

8.7 OFFSITE AGENCY SUPPORT DOCUMENTS

- 1) Offsite agency support documents shall be maintained. These documents may include Emergency Response Plans from agencies such as:
 - San Luis Obispo County
 - State of California
 - Westinghouse
- 2) Other documents may include Emergency Procedures or Protocols from agencies such as:
 - French Hospital
 - INPO
 - U.S. Coast Guard
- 3) Changes to Offsite agency support documents are not controlled by DCPPiablo Canyon and do not necessarily constitute a change to the DCPPiablo Canyon Emergency Plan.
- 4) Changes to Offsite agency support documents will be reviewed for impact to the DCPPiablo Canyon Emergency Plan.

8.8 EMERGENCY EQUIPMENT AND SUPPLIES

To ensure the availability and operational readiness of emergency equipment and supplies, provisions have been made for performing periodic maintenance, calibration and inventory checks of the equipment. Equipment that is only used in the event of an emergency, such as emergency kits, is inspected on a quarterly basis and after each use in compliance with procedures. Sufficient reserves exist to replace equipment removed from emergency kits for calibration or repair. Other equipment which is used during normal plant operation and may be used in an emergency, such as radiation detection instruments and communications networks, is included in plant surveillance testing and preventive maintenance programs. Additionally, inventories of expendable supplies are maintained in an onsite warehouse and are replenished when minimum levels are reached, thus maintaining an adequate supply at all times.

8.9 CROSS REFERENCE TO NUREG-0654

NUREG 0654	DCPP Emergency Plan	NUREG 065 4	DCPP Emergency Plan
A.3	8.6	N.3.a to f	8.3.3
B.9	8.6	N.4	8.3
F.3	8.8, 8.3.1	N.5	8.3
G.1.a to d	8.2.3	O.1	8.1, 8.2
G.2	8.2.3	O.1.a	8.2.2
G.5	8.2.3	O.2	8.1, 8.3
H.9	8.8	O.3	8.1.5
H.10	8.8	O.4.a to j	8.1, 8.2, 8.2.2
L.2	8.1.5	O.5	8.1, 8.2, 8.2.2
N.1.a and b	8.3.2	P.1	8.1, 8.2, 8.2.2
N.2.a	8.3.1	P.2	8
N.2.b	8.1.4, 8.3.1	P.4	8.4, 8.6
N.2.c	8.3.1	P.5	8.4.2
N.2.d	8.3.1	P.9	8.4.1
N.2.e	8.3.1	P.10	8.3.3.6

9. RECOVERY

This section provides guidance for the operational Recovery Phase following plant emergency declaration and response but prior to the return to normal operations. The emergency phase, in which an ~~Emergency Classification Level (ECL)~~ is declared at the Alert classification or higher, is addressed by the G-series and EF-series Emergency Plan Implementing Procedures. When the emergency is terminated and the plant no longer requires an Alert or higher emergency classification for the purposes of offsite notification, there may still remain recovery tasks to be performed outside of normal operations. This section addresses this transitional Recovery Phase.

9.1 RECOVERY PHASE

The Recovery Phase commences at the time at which an emergency at the Alert or higher level has been terminated (either de-escalated to a UE or to no ECL), but before the plant has returned to normal operations. In order to enter the Recovery Phase, the plant should be in a stable condition and any real or potential radioactive releases limited to less than license limits without the likelihood of again increasing beyond those limits. There should be little probability that the accident will recur or that a new, declarable event (Alert or higher) occur as a result of the previous emergency or response actions. The emergency phase goals of the ~~Emergency Response Organization (ERO)~~ for events at the Alert or higher level include the list below. Upon entering the Recovery Phase, these goals should have been mostly or wholly attained.

- 1) Bring the plant to a stable condition.
- 2) Mitigate any real or potential radioactive releases.
- 3) Minimize hazards to plant personnel.
- 4) Work with offsite agencies to minimize hazards to the public.

During the Recovery Phase, while the Emergency Director is still in control, management of the event is shifting from Emergency Response Organization as augmented by the incident Technical Review Group, Event Investigation Team, and, as necessary, the Outage Coordination Center. Use is made of these normal programs of widespread familiarity that deal with non-emergency ~~operational~~ problems in order to maximize the efficiency and effectiveness of the transition phase and minimize potential confusion and error.

The Recovery Phase is in turn terminated by declaration of the ~~Emergency Director~~, generally at the time ~~they~~ determines normal operational programs are sufficient to close out the event, and ~~theirs~~ continuous personal control is no longer required at or near the site. The Recovery Phase goals for returning the plant to normal operations should include the following:

- 1) Terminate the emergency declaration.
- 2) Determine which ERO positions will initially be retained in the Recovery Phase.
- 3) Initiate the ~~NC~~~~Root Cause~~ process, including the Event Response Plan as a blueprint for Recovery activities.

- 4) Activate the ~~Outage Coordination Center~~Recovery Organization for significant plant material restoration.
- 5) Complete the transition to fully normal plant (non-ERO) management.
- 6) Assist the State as requested to determine population dose.

9.2 EXTRAORDINARY EVENT RECOVERY

In the more probable accident scenarios, the Recovery Phase would be expected to begin upon the termination of the emergency phase (downgrade of an event from the Alert level or above to an UE or to no ECL).

However, there is a possibility in the case of an extraordinary event that the Recovery Phase start may be appropriate while the plant still technically exceeds the criteria for an Alert or higher ECL, due to plant conditions or release (or potential release) status.

In such cases, the ~~Emergency Director~~ may start the Recovery Phase, either concurrent with or after terminating the emergency phase for offsite notification purposes, as agreed with the County, State, and NRC authorities.

9.3 RESPONSIBILITY AND ORGANIZATION

- 1) The ~~Emergency Director (ED)~~ shall determine when the emergency event shall be terminated (downgraded to a UE or to no ECL). As appropriate in the case of an extraordinary event, the ED shall determine (as agreed by County, State, and NRC officials) when the Recovery Phase should be commenced prior to the end of the emergency phase, or when the emergency phase may be terminated for offsite notification purposes and the Recovery Phase begun, though the plant is technically in an ECL at the Alert or higher level. The ED shall then direct the activities of the Recovery organization until he declares the Recovery Phase complete. At this time his position will be deactivated and general site area control will revert to the Plant Manager, and the use of ~~Emergency Plan Implementing Procedures (EPIPs)~~ will no longer be necessary to close out the event.
- 2) The Recovery Organization will consist of the normal plant management organizations as assisted by the event-related Technical Review Group, and Event Investigation Team ~~and Outage Coordination Center~~ and as overlaid by remaining elements of the Emergency Response Organization determined necessary by the ~~Emergency Director~~. These ERO positions will in time be deactivated prior to the ED declaring the Recovery Phase complete.
- 3) The structure and function of corporate positions during the Recovery Phase in the PG&E Emergency Operations Center (General Office) are addressed in the Corporate Emergency Plan.

9.4 CROSS REFERENCE TO NUREG-0654

NUREG 0654	DCPP Emergency Plan	NUREG 0654	DCPP Emergency Plan
B.7.a to d	9	M.3	9.1
M.1	9	M.4	9.16)
M.2	9.1		

10. REFERENCES

- 1) Nuclear Regulatory Commission, Emergency Planning, Final Rule, Title 10, Part 50 of the Code of the Federal Register (10 CFR 50), Appendix E, August 19, 1980.
- 2) Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, NUREG-0654/FEMA-REP-1, Rev. 1, 10/80.
- 3) ~~Defueled~~Final Safety Analysis Report (~~D~~F~~F~~SAR), Diablo Canyon Power ~~P~~plant.
- 4) Diablo Canyon Power Plant Development of Evacuation Time Estimates, KLD Engineering, P.C., November 2012.
- 5) Alert and Notification System (ANS) Design Report Early Warning System (EWS), Revision 4.
- 6) Manual of Protective Action Guides and Protective Actions for Nuclear Accidents, EPA-400-R-92-001, Environmental Protection Agency (EPA), October 1991.
- 7) Memoranda-of-Understanding (MOU) between the NRC and FEMA, Federal Register Vol. 45, Number 243, April 18, 1985/Notices.
- 8) Federal Radiological Emergency Response Plan, November 8, 1985.

PROCEDURES

This appendix lists:

- Procedures that implement the ~~DCPP~~~~Diablo Canyon Power Plant~~ Emergency Plan.
- Cross-reference of Diablo Canyon Power Plant Emergency Planning Procedures to the NUREG-0654 planning standards.

A. EMERGENCY PLAN IMPLEMENTING PROCEDURES

A.1 GENERAL

- EP G-1 Emergency Classification and Emergency Plan Activation
- EP G-2 Interim Emergency Response Organization
- EP G-3 Emergency Notification of Off-Site Agencies
- EP G-4 Assembly and Accountability
- EP G-5 Evacuation of Non-Essential Site Personnel

A.2 ORGANIZATION

- EP OR-3 Emergency Recovery

A.3 RADIATION PROTECTION & ASSESSMENT

- EP RB-1 Personnel Dosimetry
- EP RB-2 Emergency Exposure Guides
- EP RB-3 Stable Iodine Thyroid Blocking
- EP RB-4 Access to and Establishment of Controlled Areas under Emergency Conditions
- EP RB-5 Alternate Personnel Decontamination Facilities

A.4 RADIATION PROTECTION & ASSESSMENT (IMMEDIATE OPERATOR RESPONSE)

- EP RB-8 Instructions for Field Monitoring Teams
- EP RB-10 Protective Action Recommendations
- EP RB-12 Plant Vent Iodine and Particulate Sampling During Accident Conditions
- ~~EP RB-14—Core Damage Assessment Procedure~~
- ~~EP RB-14A—Initial Detection of Fuel Cladding Damage~~
- ~~EP RB-15—Post Accident Sampling System~~
- EP RB-16 Operating Instructions for the EARS Computer Program
- EP RB-17 Operation Instructions for QuickDose

A.5 RADIATION PROTECTION & ASSESSMENT (IMMEDIATE OPERATOR RESPONSE)

- EP R-2 Release of Airborne Radioactive Materials Initial Assessment
- EP R-3 Release of Radioactive Liquids

A.6 EQUIPMENT AND FACILITIES

- EP EF-1 Activation and Operation of the Technical Support Center
- EP EF-2 Activation and Operation of the Operational Support Center
- EP EF-3 Activation and Operation of the Emergency Operations Facility
- EP EF-4 Activation of the Off-Site Emergency Laboratory
- EP EF-9 Backup Emergency Response Facilities
- EP EF-10 Activation and Operation of the Joint Information Center
- EP EF-11 Alternate Emergency Response Facilities/Incident Command Post (ICP)

A.7 TRAINING

- OM10.ID1 Maintaining Emergency Preparedness
- OM10.DC1 Emergency Preparedness Drills and Exercises

B. CROSS REFERENCE OF PROCEDURES TO NUREG-0654

NUREG-0654	PROCEDURES	NUREG-0654	PROCEDURES
A.1.d	G-2, EF-1, EF-3	F.2	EF-3, CP M-13
A.4	G-2, EF-1, EF-3	F.3	OM10.DC1
B.1	G-2, G-3	G.1.a to d	OM10, OM10.ID1
B.2	G-2	G.2	OM10, OM10.ID1
B.3	G-2, EF-1, EF-3	G.3.a	EF-10
B.4	G-2, EF-1, EF-3, RB-10	G.3.b	EF-3, EF-10
B.5	G-2, EF-1, EF-2 EF-3, EF-4, EF-10	G.4.a	EF-3, EF-10
B.6	G-2, G-3, EF-1, EF-3	G.4.b	EF-10
B.8	EF-1, EF-3	G.4.c	EF-10
B.9	AWP EP-007, CP M-13	G.5	OM10.DC1
C.1.a - c	G-2, EF-1, EF-3	H.1	EF-1, EF-2
C.2.b	EF-3, EF-11	H.2	EF-3
C.3	EF-4	H.4	G-2, EF-1, EF-2, EF-3, EF-10
C.4	EF-1, EF-3, AWP EP-007	H.5	OM10.ID6
D.1 & D.2	G-1	H.5.a	CP M-4, CP M-5
E.1	G-3	H.5.b	R-2, R-3, RB-8, RB-12
E.2	G-2, G-3	H.5.c	~~RB-14, RB-14A~~ <u>AOP AP-22</u>
E.3	G-3, RB-10	H.6.a	CP M-4, CP M-5
E.4.a to n	G-3, RB-10	H.6.b	R-2, R-3, RB-1, RB-8, RB-12
E.6	G-3, MT-43	H.6.c	RB-8, EF-4
E.7	EF-10	H.7	EF-4
F.1.a	G-2, G-3	H.8	RB-17
F.1.b	G-2, G-3	H.9	EF-2
F.1.c	G-2, G-3	H.10	MT-21, 25, 26, 27, 28, 29, 31, 35, 36, 43, 50, RCP EM-16
F.1.d	G-2, G-3, EF-1, EF-3, RB-8	H.11	RB-8, CP M-13, MT-21
F.1.e	G-2, G-3	H.12	EF-4, RB-8
F.1.f	G-3, EF-1, EF-3	I.1	G-1

NUREG-0654	PROCEDURES	NUREG-0654	PROCEDURES
I.2	R-2, ~~RB-14, RB-14A, RB-15~~ , RB-16, RB-17	L.1	CP M-13, MT-21
I.3.a	R-2, R-3, RB-16, RB-17	L.2	CP M-13
I.3.b	R-2, RB-16, RB-17	L.4	CP M-13
I.4	RB-17	M.1	OR-3
I.5	R-2, RB-16, RB-17	M.2	OR-3
I.6	R-2, RB-16, RB-17	M.3	OR-3
I.7	EF-4, RB-8	M.4	RB-16, RB-17, OR-3
I.8	EF-4, RB-8	N.1.a and b	OM10.DC1
I.9	EF-4, RB-8	N.2.a	OM10.DC1, MT-50
I.10	RB-8, RB-10, RB-16, RB-17	N.2.b	OM10.DC1
J.1.a to d	G-2, G-4, EF-1	N.2.c	OM10.DC1
J.2	G-5, RB-5	N.2.d	OM10.DC1
J.3	G-5, RB-5	N.2.e	OM10.DC1
J.4	G-5, RB-5	N.3.a to f	OM10.DC1
J.5	G-4	N.4	OM10.DC1
J.6.a	EF-1, EF-2	N.5	OM10.DC1
J.6.b	EF-1, EF-2	O.1	OM10.DC1, OM10.ID1
J.6.c	RB-3	O.1.a	OM10.DC1, OM10.ID1
J.7	G-3, RB-10	O.1.b	OM10.DC1, OM10.ID1
J.8	RB-10	O.2	OM10.DC1, OM10.ID1
J.10.a	RB-8, RB-10, G-5	O.3	OM10.DC1, OM10.ID1
J.10.b	RB-10, Appendix E	O.4.a to j	OM10.DC1, OM10.ID1
J.10.c	G-3, RB-10	O.5	OM10.DC1, OM10.ID1
J.10.m	RB-10, Appendix E	P.1	OM10, OM10.ID2
K.1.a to g	RB-2	P.2	OM10
K.2	RB-2	P.3	OM10.ID2
K.3.a and b	RB-1	P.4	OM10.ID2, AWP EP-007
K.5.a and b	EF-1, EF-2, RB-5	P.5	OM10.ID2
K.6.a to c	RB-4, RB-5, EF-1, EF-2, OR-3	P.9	OM10
K.7	RB-5	P.10	MT-25

C. CROSS REFERENCE TO NUREG-0654

This appendix implements NUREG-0654 Part II, P.7.

B. OFFSITE AGENCY SUPPORT DOCUMENTS

The following plans and procedures, which relate to response to an emergency at ~~D~~CPP~~Diablo Canyon~~, are provided by the associated offsite agencies. These documents are maintained by Emergency Planning. These documents are reviewed for any impact to the ~~D~~CPP~~Diablo Canyon~~ Emergency Plan.

- San Luis Obispo County / Cities Nuclear Power Plant Emergency Response Plan
- State of California Nuclear Power Plant Emergency Response Plan
- Westinghouse Electric Company Emergency Response Plan
- ~~Diablo Canyon Power Plant CPP~~ Emergency Response Plan Implementing Procedures Listing
- French Hospital Emergency Response Plan
- National Response Framework Nuclear/Radiological Incident Annex
- ~~Institute of Nuclear Power Operation~~ INPO's Role in an Emergency
- ~~U.SCG Coast Guard~~ Procedures to be Followed Upon Notification of an Emergency at Diablo Canyon Nuclear Power Plant

B.1 CROSS REFERENCE TO NUREG-0654

This appendix implements NUREG-0654 Part II, C.1.a, C.1.b, C.1.c, and P.6.

The following NUREG-0654 Part II planning standards are not applicable to the ~~DCPP~~Diablo Canyon Emergency Plan.

- A.2.a
- A.2.b
- C.2.a
- D.3
- D.4
- E.5
- H.3
- I.11
- J.9
- J.10. d to l
- J.11
- J.12
- K.4
- L.3
- O.1.b

Attachment 3

PROPOSED REVISION TO SITE EMERGENCY PLAN – CLEAN

Note – Only those Emergency Plan sections with proposed changes are included in this attachment. There are no proposed changes to Emergency Plan Appendices D, E, and G; thus, they are not included in the attachment.

The Diablo Canyon Emergency Plan is organized as shown below.

- Section 1 - Definitions & Acronyms
- Section 2 - Scope and Applicability
- Section 3 - Summary of Emergency Plan
- Section 4 - Emergency Conditions
- Section 5 - Organizational Control of Emergencies
- Section 6 - Emergency Measures
- Section 7 - Emergency Facilities and Equipment
- Section 8 - Maintaining Emergency Preparedness
- Section 9 - Recovery
- Section 10 - References
- Appendix A - Procedures
- Appendix B - Offsite Agency Support Documentation
- Appendix C - Non-Applicable NUREG-0654 Standards
- Appendix D - Emergency Action Level Technical Basis Manual
- Appendix E - Evacuation Time Estimates
- Appendix F - Post-Shutdown On-Shift Staffing Analysis Report
- Appendix G - Protective Action Recommendation (PAR) Strategy Bases

CROSS REFERENCE TO NUREG-0654

This appendix implements NUREG-0654 Part II, P.8.

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1. DEFINITIONS AND ACRONYMS

1.1 DEFINITIONS

This section defines terms used in the Diablo Canyon Power Plant Emergency Plan.

Annual

A calendar year beginning January 1st and ending December 31st.

Assessment Actions

Those actions taken during or after an accident to obtain and process information necessary for decisions implementing specific emergency measures.

Collective Dose

The sum of the individual doses received in a given period of time by a specified population from exposure to a specified source of ionizing radiation.

Committed Dose Equivalent (Ht,50)

The dose equivalent to organs or tissues of reference (T) that will be received from an intake of radioactive material by an individual during the 50-year period following the intake.

Committed Effective Dose Equivalent (He,50)

The sum of the products of the weighting factors applicable to each of the body organs or tissues that are irradiated and the committed dose equivalent to these organs or tissues (HE,50 = $\sum W_T H_T$,50).

Company

Refers to Pacific Gas and Electric Company.

Controlled Area

An area outside of a restricted area but inside the site boundary, access to which can be limited by the licensee for any reason.

Corrective Actions

Those emergency measures taken to ameliorate or terminate an emergency situation at or near the source of the problem in order to prevent an uncontrolled release of radioactive material or to reduce the magnitude of a release (e.g., shutting down equipment, fire fighting, repair, and damage control).

Declared Pregnant Woman (DPW)

A woman who has voluntarily informed her employer, in writing, of her pregnancy and the estimated date of conception.

Deep Dose Equivalent (H_d)

Which applies to external whole-body exposure, is the dose equivalent at a tissue depth of 1 cm (1000 mg/cm²).

Derived Air Concentration (DAC)

The concentration of a given radionuclide in air which, if breathed by the referenced man for a working year of 2,000 hours under conditions of light work (inhalation rate 1.2 cubic meters of air per hour), results in an intake of one ALI (Annual Limit of Intake). DAC values are given in Table 1, Column 3 of Appendix B to §§ 20.1001 - 20.2401.

Dose Conversion Factor (DCF)

Any factor that is used to change an environmental measurement to dose in the units of concern.

Emergency Assessment and Response System (EARS)/ Meteorological Information and Dose Assessment System (MIDAS)

The primary dose assessment program used by DCPD to project offsite dose consequences during a radiological emergency.

Early Phase

The period at the beginning of a nuclear power plant incident when immediate decisions for effective use of protective actions are required, and must be based primarily on predictions of radiological conditions in the environment. This phase may last from hours to days. For the purpose of dose projection, it is assumed to last for four days.

Emergency Action Levels (EAL)

Specific radiation levels associated with airborne, waterborne, or surface deposited concentrations of radioactive materials; or specific instrument indications (including their rates of change) that may be used as thresholds for initiating a particular emergency classification level which then requires initiating a notification procedure, or initiating a particular protective action.

Emergency Classification Levels (ECL)

The four levels of nuclear power plant emergencies: Unusual Event, Alert, Site Area Emergency, and General Emergency.

Emergency Planning Zone (EPZ)

A nominal 10-mile radius around the plant which potentially could be in the plume exposure pathway (established by federal criteria, 10 CFR 50.33.). The Diablo Canyon Emergency Planning Zone includes the federally required 10-mile radius (on land and over the ocean) and additional areas beyond the 10-mile radius as originally defined by the State of California and San Luis Obispo County, where protective actions (evacuation and/or sheltering) may be required. The land based portions of the DCPPEP EPZ are divided into 12 Protective Action Zones (PAZs) defined by local geographic boundaries (refer to section 2 of the DCPPEP Emergency Plan for a map of the EPZ).

Emergency Worker Dose

The dose received by a DCPPEP employee under emergency conditions. Emergency worker dose does not include public or occupational dose.

Exclusion Area Boundary

An exclusion area of such size that an individual located at any point on its boundary for two hours immediately following onset of the postulated fission product release would not receive a total radiation dose to the whole body in excess of 25 rem or a total radiation dose in excess of 300 rem to the thyroid from iodine exposure.

Evacuation

The urgent removal of people from an area to avoid or reduce high-level, short-term exposure, usually from the plume or from deposited activity. Evacuation may be a preemptive action taken in response to a facility condition rather than an actual release.

Facility Activation

An Emergency Response Facility is activated when the minimum staff per Figures 5-2, 5-3 and 5-4 are available and the facility is ready to assume assigned functions. Although the facility may be ready, the on-shift staff may prioritize completion of critical tasks prior to turnover.

Independent Spent Fuel Storage Installation (ISFSI)

The facility shown on ISFSI Final Safety Analysis Report Figure 4.1-1 that is used for dry storage of spent fuel.

Intermediate Phase

The period beginning after the incident source and releases have been brought under control and reliable environmental measurements are available for use as a basis for decisions on additional protective actions and extending until these protective actions are terminated. This phase may overlap the early and late phases and may last from weeks to many months. For the purpose of dose projection, it is assumed to last for one year.

Late Phase

The period beginning when recovery action designed to reduce radiation levels in the environment to permanently acceptable levels are commenced, and ending when all recovery actions have been completed. This period may extend from months to years (also referred to as the recovery phase).

Low Population Zone (LPZ)

The area immediately surrounding the exclusion area which contains residents, the total number and density of which are such that there is a reasonable probability appropriate protective measures could be taken in their behalf in the event of a serious accident (10 CFR 100.3). For Diablo Canyon Power Plant, the LPZ is an area encompassed by a radius of 6 statute miles on land (PAZs one and two) and the ocean out to five nautical miles.

Member of the Public

An individual in a controlled or unrestricted area. However, an individual is not a member of the public during any period in which the individual receives an occupational dose.

Monitor and Prepare

A type of precautionary action intended to advise the public within the EPZ that a serious emergency at the nuclear power plant exists and that it should monitor the situation and prepare for the possibility of evacuation, sheltering in place, or other protective actions.

Non-Essential Personnel

DCPP personnel that do not have assigned emergency response duties or are not required for maintaining the safe operation of the plant.

Owner Controlled Area (OCA)

The land area(s) adjacent to the site boundary that is owned and controlled by the licensee, whereby access can be limited by the licensee for any reason. Generally described, the DCPP OCA is the area between the Port San Luis gate and security gate A, bounded by the eastern hills directly adjacent to the site access road and the northern evacuation route, and bounded to the west by the Pacific Ocean. (NOTE: for commitments identified in the Diablo Canyon Physical Security Plan, the "Owner Controlled Area" (OCA) is within the "Site Boundary" as described in the Defueled Safety Analysis Report (DSAR).

PF_i

Protection factor for isotope is for the least effective respiratory equipment employed by persons in an area.

Population at Risk

Those persons for whom protective actions are being or would be taken. (Reference 6.)

Projected Dose

Future dose calculated for a specified time period on the basis of estimated or measured initial concentrations of radionuclides or exposure rates and in the absence of protective actions.

Protected Area (PA)

Areas to which access is strictly controlled in accordance with the station's Security Plan. This specifically includes the areas around the Power Block and the Independent Spent Fuel Storage Installation (ISFSI).

Protective Action Guide (PAG)

The projected dose to an individual, based on reference man, from an accidental release of radioactive material at which a specific protective action to reduce or avoid that dose is warranted.

Protective Action Recommendations (PARs)

Those recommended emergency measures taken before or after an uncontrolled, or controlled, release of radioactive material to prevent or minimize radiological exposures to persons likely to occur if the actions were not taken.

Protective Action Zone (PAZ)

Emergency response planning areas within the DCPPEPZ that were originally defined by the State of California and San Luis Obispo County using local geographic boundaries. There are 12 defined PAZs within the DCPPEPZ.

Public Dose

The dose received by a member of the public from exposure to ionizing radiation and to radioactive material released by licensee, or to another source of radiation either within a licensee's controlled area or in unrestricted areas. It does not include occupational dose or doses received from background radiation, as a patient from medical practices, or from voluntary participation in medical research programs.

Public Education Zone (PEZ)

The State of California Nuclear Power Plant Emergency Response Plan area enclosed by a boundary beyond the DCPPEPZ to include the area where public education is required, but planning for public protective actions (evacuation and/or sheltering) is not required.

Radiologically Controlled Area (RCA)

An area which is established for the protection of personnel from radiological hazards.

Recovery

The process of reducing radiation exposure rates and concentrations of radioactive material in the environment to levels acceptable for unconditional occupancy or use.

Recovery Actions

Those actions taken after the emergency to restore the plant as nearly as possible to its pre-emergency condition.

Reentry

Temporary entry into a restricted zone under controlled conditions.

Restricted Area

Synonymous with DCPD Protected Area.

Restricted Zone

An area with controlled access from which the population has been relocated.

Return

The reoccupation of areas cleared for unrestricted residence or use.

Sheltering

The use of structure for radiation protection from an airborne plume and/or deposited radioactive materials. As a protective action recommendation, it is instructions given to members of the public to remain indoors, turn off heating or air conditioning (as appropriate), close windows, monitor communication channels, and prepare to evacuate.

Shallow-Dose Equivalent (H_s)

Which applies to the external exposure of the skin or an extremity, is taken as the dose equivalent at a tissue depth of 0.007 centimeter (7 mg/cm^2) averaged over an area of 1 square centimeter.

Site Boundary

As depicted in the DSAR, Figure 2.1-2, Site Plan and Gaseous Effluent Release Points.

Total Effective Dose Equivalent (TEDE)

The sum of the deep dose equivalent (for external exposures) and the committed effective dose equivalent (for internal exposures).

Turnover

The exchange of the appropriate amount of information to allow another person or team to assume the responsibility for providing a function.

Unrestricted Area

An area, access to which is neither limited nor controlled by the licensee.

Whole Body

For purposes of external exposure, head, trunk (including male gonads), arms above the elbow, or legs above the knee.

Whole Body Dose

Dose resulting from uniform exposure of the entire body to either internal or external sources of radiation.

1.2 ACRONYMS

This section provides acronyms, abbreviations and symbols, other than those used within the EAL Technical Basis Manual (see attachment D), used in the Diablo Canyon Power Plant Emergency Plan.

Acronym / Abb.	Meaning
APTN	Admin Plant Telephone Network
ASW	Auxiliary Salt Water
CAS	Central Alarm Station
CCW	Component Cooling Water
CDPH	California Department of Public Health
CFR	Code of Federal Regulations
Ci	Curie
CFH	Certified Fuel Handler
CR	Control Room
CRT	Cathode Ray Tube
CVCS	Chemical and Volume Control System
DAC	Derived Air Concentration
DCPP	Diablo Canyon Power Plant
DCF	Dose Conversion Factor
DHS	Department of Homeland Security
DOE	Department of Energy
DSAR	Defueled Safety Analysis Report
EAL	Emergency Action Level
EAS	Emergency Alert System
EARS	Emergency Assessment and Response System
ECL	Emergency Classification Level
ED	Emergency Director
EDE	Effective Dose Equivalent
ENF	Emergency Notification Form
ENS	Emergency Notification System
EOC	Emergency Operations Center (County)
EOF	Emergency Operations Facility
EOP	Emergency Operating Procedure
EPIP	Emergency Plan Implementing Procedure
EPA	Environmental Protection Agency
EPZ	Emergency Planning Zone
ERFDS	Emergency Response Facility Data System

ERO	Emergency Response Organization
ERP	Emergency Response Plan
ESF	Engineered Safety Feature
ETE	Evacuation Time Estimate
EWS	Early Warning System
FEMA	Federal Emergency Management Agency
FMT	Field Monitoring Team
FTS	Federal Telecommunications System
GE	General Emergency
GM	Geiger Mueller Radiation Monitor
HAB	Hostile Action Based
HPN	Health Physics Network
I	Iodine
ICS	Incident Command System
IFO	Industrial Fire Officer
IPZ	Ingestion Planning Zone
ISFSI	Independent Spent Fuel Storage Installation
JIC	Joint Information Center (A.K.A., JMC)
JMC	Joint Media Center
KI	Potassium Iodide
LAN/WAN	Local Area Network / Wide Area Network
LPZ	Low Population Zone
M	Meter
MIDAS	Meteorological Information and Dose Assessment System
NCO	Non-Certified Operator
NIMS	National Incident Management System
NM	Nautical Mile
NRC	Nuclear Regulatory Commission
NRI	Nuclear/Radiological Incident
OCA	Owner Controlled Area
OEL	Offsite Emergency Laboratory
OES	Office of Emergency Services, SLO County or CA State
OSA	On-Shift Staffing Assessment
OSC	Operational Support Center
OPTN	Operations Plant Telephone Network
PA	Protected Area
PAD	Protective Action Decision (Offsite Agency)
PAG	Protective Action Guideline
PAR	Protective Action Recommendation (Utility)

PAZ	Protective Action Zone
PBX	Private Branch Exchange
PEZ	Public Education Zone
PG&E	Pacific Gas and Electric Company
PG&E EOC	Corporate Emergency Operations Center, Conference Rm. A & B, 245 Market Street, San Francisco
PIC	Pressurized Ion Chamber
PIO	Public Information Officer
PPC	Plant Process Computer
PSTN	Public Switched Telephone Network
PTN	Plant Telephone Network
RCA	Radiological Controlled Area
RWP	Radiation Work Permit
SAE	Site Area Emergency
SAS	Secondary Alarm Station
SCADA	Supervisory Control and Data Acquisition (Siren Query)
SEC	Site Emergency Coordinator
SCBA	Self-Contained Breathing Apparatus
SFP	Spent Fuel Pool
SSPS	Solid State Protection System
TEDE	Total Effective Dose Equivalent
TLD	Thermo-luminescent Dosimeter
TRS	Transient Recording System
TSC	Technical Support Center
TSC-CC	Technical Support Center Computation Center
UDAC	Unified Dose Assessment Center
USCG	United States Coast Guard
UE	Unusual Event
μCi/cc	microcuries per cubic centimeter

2. SCOPE AND APPLICABILITY

There are several documents which, when taken together, describe the manner in which government agencies and Pacific Gas and Electric Company (PG&E) will respond to an emergency at Diablo Canyon Power Plant (DCPP). These documents include the State of California and San Luis Obispo County / Cities Nuclear Power Plant Emergency Response Plans and the PG&E DCPD Emergency Plan.

The DCPD Emergency Plan is an integral part of the licensing documentation developed to meet the requirements for an operating license. The Emergency Plan is included in Volume 11 of the Plant Manual. The DCPD Emergency Plan, per se, is a summary document which describes the general manner in which PG&E corporate and plant staff personnel will respond to an emergency situation at the site. Their responses are detailed in the Emergency Plan implementing procedures.

Revision 1 was issued in September 1977. Revision 2 was promulgated in February 1980 as a result of major changes in content and format to meet the requirements of NRC Regulatory Guide 1.101, "Emergency Planning for Nuclear Power Plants."

New emergency planning regulations went into effect in late 1980 which were codified in Appendix E of Title 10, Part 50 of the Code of the Federal Regulation (10 CFR 50), effective November 3, 1980. These changes were implemented by the issuance of NUREG-0654, Revision 1 (Reference 2). Consequently, it was necessary to again revise the Emergency Plan to incorporate the requirements of NUREG-0654.

DCPD permanently ceased power operations at the end of its operating licenses in 2024 for Unit 1 and 2025 for Unit 2. Upon docketing of the certifications required by 10 CFR 50.82(a)(1)(i) and 10 CFR 50.82(a)(1)(ii), pursuant to 10 CFR 50.82(a)(2), the 10 CFR 50 licenses for DCPD no longer authorize operation of the reactors or emplacement or retention of fuel in the reactor vessels. Revision X of the DCPD Emergency Plan was issued to reflect the permanently shutdown and defueled condition.

All nuclear power plant emergency response plans are written to carry out the provisions and intent of 10 CFR 50, Appendix E. This statute requires nuclear power plant licensees to prepare and submit their emergency plans together with state and local (County) emergency response plans, to the Nuclear Regulatory Commission (NRC). The Federal Emergency Management Agency (FEMA) is charged to review the State and County plans for adequacy, measured according to the standards listed in joint NRC-FEMA documentation (Reference 2). In this capacity, FEMA required State and County nuclear power plant emergency response to be revised to meet the new federal standards. The NRC is charged to assess the DCPD Emergency Plan and its implementation and to review the FEMA findings to determine the adequacy of the overall state of emergency preparedness as a condition for an operating license.

DCPD has an Independent Spent Fuel Storage Installation (ISFSI). The Diablo Canyon ISFSI site is located east of the plant near the raw water reservoir and the 230-kV switchyard. Thus, in addition to the requirements discussed above, the DCPD Emergency Plan meets the requirements of 10 CFR 72.32(c).

The provisions of this document and its implementing procedures carry out the policy for an emergency organization as stipulated by the Chief Nuclear Officer, the Program Directive, "Emergency Preparedness," OM10. The Emergency Plan is intended to serve several purposes, including:

- 1) Establish the emergency duties and responsibilities of the various members of the plant and corporate support staff.
- 2) Inform all affected agencies and organizations of the interfaces which have been established between the plant staff and participating company and non-company support groups.
- 3) Provide a convenient means for gathering together, by way of appendices to the Plan, the plans of the various participating offsite agencies such that plant staff personnel are made aware of the basic responsibilities and capabilities of these agencies.
- 4) Provide an overview of the facilities, equipment, and procedures utilized in an emergency to inform and assist those offsite agencies who must coordinate their planning and response activities with those of the plant and corporate staff.
- 5) Fulfill licensing requirements of the Nuclear Regulatory Commission.

This Plan, in conjunction with the San Luis Obispo County / Cities Nuclear Power Plant Emergency Response Plan, provides for planning in the geographical area bounded by possible plume exposure pathways. According to federal guidelines, this is, as a minimum, an area covered by a radius of approximately 10 miles from the power plant. With this federally defined radius as a minimum, the federal government has delegated to the states the responsibility to define the Emergency Planning Zone (EPZ) unique to each nuclear power plant site within their individual state boundaries. As a result, in the State of California for the San Luis Obispo area, the EPZ includes the nominal 10-mile radius around the plant as well as additional areas beyond the 10-mile radius as originally defined by the State of California and San Luis Obispo County for emergency response planning (see figure below).

PG&E has the non-delegable responsibility for recommending appropriate protective actions to State and Local authorities to cover areas within the EPZ to which the public has access, including areas over water.

Below is a map of the DCPPEPZ showing Protective Action Zones (PAZs) 1-12 and a 5 and 10 nautical mile safety zone.



3. SUMMARY OF EMERGENCY PLAN

There are several documents which, when taken together, describe the manner in which the DCPD Emergency Plan provides guidance to company personnel in emergency classification, appropriate response actions, and outside agency relationship and response. PG&E will be referred to in this text as "The Company".

The DCPD Emergency Plan and its Appendices are included as one volume of the DCPD Plant Manual. Other volumes of the Plant Manual contain the implementing procedures which provide detailed instructions to plant staff personnel for responding to various postulated emergency situations and for performing the various analytical assessments which are required to support the response.

The identification and classification of an emergency situation is described in Section 4, EMERGENCY CONDITIONS. Standard NRC emergency classifications are used to facilitate identification and non-technical assessment of emergency conditions. The use of emergency classifications assist various affected parties in understanding the potential severity and in initiating a pre-planned response during the early stages of an emergency situation.

The normal on-shift and emergency organizations are described in Section 5, ORGANIZATIONAL CONTROL OF EMERGENCIES. This Section also summarizes the relationship between the plant, corporate staff, and participating offsite emergency authorities, and defines responsibilities of individuals and organizations involved in emergency response organizations.

In Section 6, EMERGENCY MEASURES, specific emergency response measures are outlined. Also addressed are the activation and actions of the emergency organization and procedures for handling onsite evacuation as well as personnel injury.

Emergency response facilities, communication systems, radiological dose assessment, protective measures, and medical facilities are described in Section 7, EMERGENCY FACILITIES AND EQUIPMENT.

The means to ensure emergency plans continue to be effective are identified in Section 8, MAINTAINING EMERGENCY PREPAREDNESS.

Section 9, RECOVERY, describes general, long term arrangements for restoring the plant to a safe status.

Section 10, REFERENCES, provides a listing of material referred to in other sections.

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4. EMERGENCY CONDITIONS

4.1 EMERGENCY CLASSIFICATION LEVELS

Events having actual or potential emergency implications are placed into one of four emergency classification levels in accordance with established criteria. The emergency classification levels (ECL) are:

- UNUSUAL EVENT (UE)
- ALERT
- SITE AREA EMERGENCY (SAE)
- GENERAL EMERGENCY (GE)

Definitions of the four ECLs are provided in Appendix D.

The principal purposes of the standardized classification system are threefold:

- To assure timely notification of particular events which could lead to significant consequences given subsequent operator error or equipment failure, or which might be indicative of more serious conditions not at the time fully appreciated.
- To provide a non-technical description of the actual or likely implications of the event which can be easily communicated to and understood by various affected parties during the early stages of the event.
- To provide a vehicle for setting in motion prearranged emergency response activities by all affected parties.

All the initiating conditions of NEI 99-01, "Methodology for Development of Emergency Action Levels," and the postulated design basis accidents in the DCPD Defueled Safety Analysis Report (DSAR) have been classified in accordance with the criteria discussed in Sections 4.1.1, 4.1.2, 4.1.3, and 4.1.4 and are listed in Appendix D and Appendix F. The Emergency Plan Implementing Procedures (EPIPs) are listed in Appendix A.

Appendix D provides specific instruments, parameters, or equipment status used at DCPD to classify events specified in NEI 99-01. Many of the "UNUSUAL EVENTS" included in NEI 99-01 are also reportable under the reporting requirements of 10 CFR 50.72. DCPD Administrative Procedures contain the detailed criteria and instructions necessary to evaluate and report operating events not classified as emergencies to the NRC.

Appendix F lists the DSAR design basis accident and classifies it in accordance with the emergency classification criteria discussed in Sections 4.1.1, 4.1.2, 4.1.3, and 4.1.4.

The bases for notifying off-site response organizations are established by the identification of Emergency Action Levels (EALs). These in turn determine which one of the classifications is an appropriate assessment of the severity of the accident. The classification is then the non-technical assessment transmitted to off-site government agencies which provides the vehicle mentioned above for setting emergency response activities in motion.

4.1.1 UNUSUAL EVENT

4.1.1.1 Release Potential and Significance

No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occur.

4.1.1.2 Purpose

The purpose of the UNUSUAL EVENT classification is to:

- 1) Assure the first step in any response later found necessary has been carried out.
- 2) Bring the on-shift staff to a state of readiness.
- 3) Provide systematic handling of UE information and decision making.

4.1.1.3 General Actions of Plant Staff

- 1) Promptly inform local, State, and off-site Company support agencies of the nature of the UNUSUAL EVENT.
- 2) Augment on-shift resources as required.
- 3) Assess and respond.
- 4) Close out with verbal summary to off-site support agencies; followed by a written summary within 24 hours (or the next working day).

OR

- 5) Escalate to a more severe emergency classification level.

4.1.1.4 General Actions of Local and State Off-Site Authorities

- 1) Provide medical, fire, and security assistance if requested.
- 2) Standby until verbal close-out.

OR

- 3) Take appropriate actions for event.

4.1.2 ALERT

4.1.2.1 Release Potential and Significance

Releases at this level would ordinarily not require near-term protective measures, (such as evacuation) beyond the site boundary. County protective action decisions (PADs) within the Low Population Zone (LPZ) might be made as a precautionary action if a release near the Technical Specification maximum was actually expected and the potential existed for a release of extended duration or for escalation to a more severe emergency classification level. The need for near-term protective action beyond the boundary of the LPZ would be unnecessary.

4.1.2.2 Purpose

The purpose of the ALERT classification is to:

- 1) Augment on-shift resources by activating the Technical Support Center (TSC), Operational Support Center (OSC), and the Emergency Operations Facility (EOF) and staffing the Joint Information Center (JIC).
- 2) Provide off-site authorities with current status information.

4.1.2.3 General Actions of Plant Staff

- 1) Promptly inform local, State, and off-site company support agencies of the nature and status of the ALERT condition.
- 2) Provide a dedicated individual (Advisor to County) for plant status updates to off-site authorities.
- 3) PG&E News Department will provide periodic media briefings (joint with off-site authorities).
- 4) Dispatch on-site and off-site monitoring teams.
- 5) Provide periodic plant status updates to off-site authorities (approximately every 45 minutes or immediately if situation warrants).
- 6) Provide periodic meteorological assessments to off-site authorities and, if any releases are occurring, dose estimates for actual releases.
- 7) Close out or recommend reduction in emergency classification level by verbal summary to off-site authorities, followed by written summary within 8 hours.

OR

- 8) Escalate to a more severe emergency classification level.

4.1.2.4 General Actions of Local and State Off-Site Authorities

- 1) Provide fire and security assistance if requested.
- 2) Augment resources by activating the County Emergency Operations Center (EOC).

- 3) Alert to standby status key emergency personnel including monitoring teams and associated communications.
- 4) Provide confirmatory off-site radiation monitoring and ingestion pathway dose projections if actual releases substantially exceed Technical Specification limits.
- 5) Maintain ALERT status until verbal close-out or reduction in emergency classification level.

OR

- 6) Take appropriate actions for event.

4.1.3 SITE AREA EMERGENCY

4.1.3.1 Release Potential and Significance

Any releases are not expected to result in exposure levels which exceed EPA Protective Action Guidelines (PAGs) exposure levels beyond the site boundary.

Radiological releases that reach the level resulting in an ECL of a Site Area Emergency would almost certainly require that protective measures be taken on-site. County PADs may result in some precautionary actions to be taken in the downwind LPZ sectors. The appropriate near-term response for such an occurrence is to perform an assessment of conditions as they actually exist and take action based on this assessment, as discussed below.

4.1.3.2 Purpose

The purpose of the SITE AREA EMERGENCY classification is to:

- 1) Assure that all response centers are activated.
- 2) Assure that monitoring teams are dispatched.
- 3) Assure that personnel required for evacuation of near-site areas are at duty stations if the situation becomes more serious.
- 4) Provide current information for off-site authorities and the public.

4.1.3.3 General Actions of Plant Staff

- 1) Promptly inform local, State, and off-site company support agencies of the nature of the SITE AREA EMERGENCY condition and its status.
- 2) Augment resources by activating the TSC, OSC, EOF, and staffing the JIC if not already completed. Resources may be provided to Corporate emergency response facilities, if needed.
- 3) Provide a dedicated individual (Advisor to the County) for plant status updates to off-site authorities.

- 4) PG&E News Department will provide periodic media briefings (joint with off-site authorities).
- 5) Dispatch on-site and off-site monitoring teams, if not already completed.
- 6) Evacuate non-essential personnel from the Site.
- 7) Make senior technical and management staff on-site available for consultation with the NRC, the State, and the County authorities on a periodic basis.
- 8) Provide meteorological and dose estimates to off-site authorities for actual releases.
- 9) Provide release and dose projections based on available plant condition information and foreseeable contingencies.
- 10) Close out or recommend reduction in emergency classification level by briefing off-site authorities at County EOC, followed by written summary within 8 hours.

OR

- 11) Escalate to GENERAL EMERGENCY classification level.

4.1.3.4 General Actions of Local and State Off-Site Authorities

- 1) Provide assistance if possible.
- 2) Activate Early Warning System, including Emergency Alert System and provide immediate public notification of emergency status and provide public periodic updates.
- 3) Augment resources by activating the County EOC if not activated earlier.
- 4) Activate key emergency personnel including monitoring teams and associated communications.
- 5) If not already completed, notify and activate other emergency personnel (e.g., those needed for evacuation) and mobilize personnel to duty stations.
- 6) Provide off-site monitoring results to DCPD and others. Jointly assess monitoring results with DCPD.
- 7) Continuously assess information from DCPD and off-site monitoring regarding changes to protective actions already initiated for public and mobilizing evacuation resources.
- 8) Assess need for action to prevent or mitigate ingestion pathway exposure.
- 9) Provide joint media briefings with the Company.
- 10) Maintain SAE status until close-out or reduction of emergency classification level.

OR

- 11) Take appropriate actions for event.

4.1.4 GENERAL EMERGENCY

4.1.4.1 Release Potential and Significance

Releases can be reasonably expected to exceed EPA PAG exposure levels offsite for more than the immediate site area.

A condition where an actual release exceeds the levels for a GENERAL EMERGENCY would require protective actions on-site and in the downwind areas of the LPZ. Lack of available shelter for many of the persons in this area (agricultural workers, visitors to Montana de Oro State Park) makes precautionary evacuation of the LPZ and the ocean to 5 Nautical Miles (NM) the appropriate response following a GENERAL EMERGENCY declaration. For areas beyond the LPZ, the appropriate near-term action is to direct the remainder of the EPZ to monitor and prepare for possible protective actions. The County may also take additional actions such as deploying law enforcement agencies in preparation for possible evacuation or directing transients to return to their homes outside the EPZ. The appropriate on-going response for such an occurrence is to perform continuous assessments of conditions as they actually exist and take action based on this assessment, as discussed below.

The initial Protective Action Recommendation (PAR) is included with the offsite response organization notification of a General Emergency within 15 minutes of declaration of a General Emergency.

4.1.4.2 Purpose

The purpose of the GENERAL EMERGENCY classification is to:

- 1) Initiate pre-determined protective actions for the public.
- 2) Provide continuous assessment of information from the Company and off-site measurements.
- 3) Initiate additional measures as indicated by event releases or potential releases.
- 4) Provide current information for off-site authorities and the public.

4.1.4.3 General Actions of Plant Staff

- 1) Promptly inform local, State, and off-site company support agencies of the nature of the GENERAL EMERGENCY condition and status.
- 2) Augment resources by activating the TSC, OSC, EOF, and staffing the JIC if not already completed. Resources may be provided to Corporate emergency response facilities, if needed.
- 3) Assess and respond.
- 4) Evacuate non-essential personnel from the site, if not already done earlier.
- 5) Dispatch on-site and off-site monitoring teams, if not already completed.

- 6) Provide a dedicated individual (Advisor to County) for plant status updates to off-site authorities.
- 7) Provide periodic media briefings (joint with off-site authorities) from the JIC.
- 8) Make senior technical and management staff on-site available for consultation with the NRC, the State, and the County on a periodic basis.
- 9) Provide meteorological and dose estimates to off-site authorities for actual releases.
- 10) Provide release and dose projections based on available plant condition information and foreseeable contingencies.
- 11) Close out or recommend reduction in emergency classification level by briefing off-site authorities at County EOC, followed by written summary within 8 hours.

4.1.4.4 General Actions of Local and State Off-Site Authorities

- 1) Provide assistance if possible.
- 2) Activate Early Warning System, including Emergency Alert System and provide immediate public notification of emergency status and provide public periodic updates.
- 3) Evacuate the LPZ. Assess need to extend evacuation distance beyond the LPZ.
- 4) Augment resources by activating the County EOC if not activated earlier.
- 5) Activate key emergency personnel including monitoring teams and associated communications.
- 6) Mobilize emergency personnel to duty stations within EPZ and activate others to standby status.
- 7) Provide off-site monitoring results to DCCP and others. Jointly assess monitoring results.
- 8) Continuously assess information from DCCP and off-site monitoring regarding changes to protective actions already initiated for the public and mobilizing evacuation resources.
- 9) Assess need for action to prevent or mitigate ingestion pathway exposure.
- 10) Provide media briefings jointly with the Company.
- 11) Maintain GENERAL EMERGENCY status until close-out or reduction of emergency classification level.

4.2 CLASSIFICATION AND DECLARATION OF EVENTS

Emergency Plan Appendix D Section 3 contains the timeliness bases and requirements for classification and declaration of an off-normal condition.

During an actual radiological emergency (not appropriate for drills / exercises) a delay in emergency declaration beyond 15 minutes may be necessary to address extenuating circumstances. Such delays could be found acceptable during an actual emergency if the situation meets all of the following conditions:

- The delay has no significant impact on the implementation of adequate measures to protect the public health and safety.
- The delay was caused by a licensee actively performing another action immediately needed to protect the public health and safety such that a delay in declaration qualitatively represents the lesser risk.
- The cause of the delay was not reasonably within the licensee's ability to foresee and prevent.

4.3 SPECTRUM OF POSTULATED ACCIDENTS

The parameter values, equipment status and initiating conditions for each of the four emergency classification levels are identified in Appendix D. A more comprehensive discussion of various accident assessment equipment and capabilities is given in Sections 6 and 7 of the Emergency Plan.

4.4 CROSS REFERENCE TO NUREG-0654

NUREG-0654	DCPP Emergency Plan
D.1	Appendix D
D.2	Appendix D, Appendix F
E.1	4.1.1.3.1, 4.1.2.3.1, 4.1.3.3.1, 4.1.4.3.1
H.5	Appendix D
I.1	Appendix D
J.7	4.1
J.10.m	Appendix G, Appendix E

* EAL cross reference to NEI 99-01 contained in Appendix D.

- Appendix D contains the NRC approved criteria for plant events including plant conditions.
- Appendix E contains the evaluation time estimate study for the DCPP Emergency Planning Zone based upon population, time of day and for various weather conditions.
- Appendix F contains the post-shutdown On-Shift Staffing Assessment (OSA) and includes analysis of the DSAR design basis accident.
- Appendix G contains the protective action recommendation plan based upon radiological dose, meteorological, and plant conditions.

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5. ORGANIZATIONAL CONTROL OF EMERGENCIES

In the event of an emergency, the DCPD normal plant operational organization is supplemented with an organization specifically designed to control emergency conditions. The emergency response organization (ERO) may, depending upon the severity of the incident, consist of shift operating staff or a comprehensive emergency force composed of plant, corporate, and contract personnel. This section describes the normal plant organization, the onsite emergency organization, and governmental agencies responsible for directing offsite emergency response activities.

5.1 NORMAL PLANT ORGANIZATION

The Chief Nuclear Officer (CNO) has executive responsibility for DCPD and the Diablo Canyon ISFSI. The vice president nuclear generation reports to the Chief Nuclear Officer and has overall responsibility for in-plant functions, ISFSI functions, and plant-corporate interfaces. The organizational structure for DCPD is shown in the DCPD DSAR. The organizational structure for the ISFSI is shown in the DC ISFSI FSAR.

5.1.1 Emergency Planning

The vice president nuclear generation has responsibility for overall emergency preparedness at DCPD and Diablo Canyon ISFSI. The organizational structure is described in DCPD DSAR and ISFSI FSAR.

The emergency planning manager is assigned the responsibility for preparation and maintenance of the DCPD Emergency Plan and its implementing procedures. The emergency planning manager also provides the corporate interface with offsite emergency response organizations including San Luis Obispo County, State of California, NRC, FEMA, U.S. Coast Guard (USCG), Environmental Protection Agency (EPA), and other Federal, State, and local agencies involved in DCPD emergency response.

The emergency planning manager is assigned the responsibility for onsite coordination of drills and exercises, maintenance of emergency response facilities and the Early Warning System (EWS), review and revision of the DCPD Emergency Plan and implementing procedures, and maintenance of the emergency response organization. These duties may be delegated to the emergency planning staff appropriate with organizational resources.

The emergency planning group provides training to the site emergency response organization, the Company support organization and assists, as required, with training of offsite emergency response organizations.

5.1.2 Balance of Normal Station Organization

See DCPD DSAR Chapter 13 for further organization details.

5.1.3 Minimum On-Shift ERO Staffing Requirements

At DCPD, a minimum staff of 12 personnel is required to be on-shift during operation of both spent fuel pools (SFPs) and the ISFSI. This implements the criteria of NUREG-0654, Table B-1. The normal shift complement provides staffing for the on-shift emergency response organization. Shift emergency response positions for the functional assignments are shown in Table 5-1.

A detailed analysis, that forms the technical basis of the on-shift emergency response organization staffing, documents the demonstration that on-shift personnel assigned Emergency Plan implementation functions are not assigned responsibilities that would prevent the timely performance of their assigned functions as specified in Table 5-1 is contained in Appendix F.

5.2 NORMAL CORPORATE ORGANIZATION

5.2.1 Nuclear Power Generation Business Unit

The CNO has executive responsibility for the safe operation of DCPD. An important part of this responsibility focuses on the coordination and development of both Company and DCPD Emergency Plans and preparedness as an essential element in assuring the public health and safety.

5.2.2 Other Supporting Departments

Other Company departments provide support services along normal departmental areas of responsibility. Some examples are governmental relations, news department, law, and insurance.

5.3 DIABLO CANYON ON-SHIFT EMERGENCY RESPONSE ORGANIZATION

5.3.1 Control Room

The fundamental Control Room responsibilities during an emergency are to operate the plant systems, monitor unit conditions and take corrective actions to regain control, minimize accident consequences, and terminate the incident.

5.3.2 Shift Supervisor

The Shift Supervisor is responsible for activating the DCPD Emergency Plan and assumes emergency response command and control until relieved by the Site Emergency Coordinator or Emergency Director. The Shift Supervisor shall be qualified as a Certified Fuel Handler (CFH),

- 1) Prior to being relieved, the Shift Supervisor is responsible for implementing the following non-delegable activities and authorizations:
 - a) Perform the initial evaluation and classification of the event.
 - b) Assign plant personnel to positions in the Site Emergency Organization.
 - c) Provide PARs regarding evacuation, sheltering, or other emergency measures to offsite government agencies.
 - d) Authorize the sounding of the site emergency signal.
 - e) Authorize the evacuation of the plant site and specify the appropriate evacuation route.
 - f) Authorize overtime and other expenses associated with establishing and maintaining an appropriate site emergency organization.
 - g) Provide direction for all emergency response operations performed by Company personnel in the San Luis Obispo County area.
 - h) Authorize any extraordinary emergency measures, such as the use of Company emergency personnel exposure limits.
 - i) Approve information for inclusion in media releases.
- 2) The Shift Supervisor is responsible for ensuring the performance of the following delegable activities:
 - a) Notification of:

- (1) Plant personnel
- (2) Company offsite emergency organizations
- (3) Local non-Company emergency support groups
- (4) San Luis Obispo County, California Office of Emergency Services (CA OES) and the NRC

b) Maintain liaison with offsite emergency support groups.

5.3.3 Certified Fuel Handler

Two CFHs are on-shift in the normal operating organization, one of which is the Shift Supervisor.

During an emergency, the CFH performs the following:

- 1) Emergency communications
- 2) Technical support for plant system engineering, repair, and corrective actions
- 3) Assessment of the incident including initial classification and development of a Protective Action Recommendation
- 4) Plant management representation in the Control Room, including:
 - a) Managing operational activities.
 - b) Supervising the Control Room management in the operational control of the plant.
 - c) Advising the Site Emergency Coordinator on operational matters.

5.3.4 Non-Certified Operators (NCOs)

These are positions in the normal plant organization that continue to perform plant operational manipulations in the emergency organization when not otherwise assigned. One NCO is assigned to each Unit and a third NCO is a rover between Units.

5.3.5 Security Personnel

Security personnel is per the Security Plan. The Security Watch Commander is a normal plant organization position that is generally located in the main Protected Area, but may be located elsewhere depending on security strategy. The Security Watch Commander is responsible for onsite emergency assembly and accountability, the results of which are reported to the Site Emergency Coordinator.

5.3.6 Evacuation Coordinator

This is a temporary position that coordinates evacuation of nonessential personnel from the site if warranted by the situation. It would normally be assigned to a member of the security staff, such as the TSC Security Advisor, as per EP G-5.

5.3.7 Evacuation Team

These are temporary positions consisting of a RP Technician and an assigned individual who will accompany the evacuees in the event a site evacuation is necessary. The basic functions of this team are:

- 1) Assure evacuees stay together and take the correct route.
- 2) Assist in personnel accountability at the evacuation offsite assembly area.
- 3) Secure radiation survey equipment and survey personnel and vehicles at the collection area and arrange for decontamination as required.

5.3.8 First-Aid and Medical

The importance of providing prompt first-aid is well recognized. First aid training is provided for plant personnel and includes voluntary certification for Cardio-pulmonary resuscitation. An onsite medical facility and EMT qualified Firefighters are available to provide basic life support capabilities at all times. During off hours, staffing is limited to an EMT qualified Firefighter.

5.3.9 Fire Department

This department is responsible for onsite firefighting, rescue operations, and first-aid.

5.4 DIABLO CANYON EMERGENCY RESPONSE ORGANIZATION

5.4.1 Emergency Response Staffing

- 1) The ERO is grouped into assigned teams for rotating on call duties and to ensure that continuous 24-hour operation can be sustained. The ERO is fully activated and staffed for emergencies classified as Alert, Site Area Emergency, or General Emergency.
- 2) The Emergency Response Organization minimum staffing requirements and functional responsibilities are provided in Section 5.19 Table 5-1.

5.5 EMERGENCY RESPONSE FACILITIES AND ORGANIZATIONS

The DCPD emergency organization operates from onsite emergency centers: Control Room (CR), TSC, and OSC. The organization onsite is supported by offsite emergency response facilities: EOF and JIC.

Section 5.21 Figure 5-1, Overall Command and Control Structure, illustrates these organizations.

5.6 TECHNICAL SUPPORT CENTER

The primary function of the TSC is to provide an onsite location, independent of the Control Room, where the overall coordination of the onsite emergency response effort takes place. The TSC staff augments the Control Room in the diagnosis of plant conditions, recommends corrective actions, and coordinates plant and unit emergency activities. The TSC may communicate the notifications to the NRC.

More specifically, functional assignments at the TSC include (primary ERO assignments are indicated in parenthesis):

- 1) Engineering and Technical Analysis (Engineering Advisor)
Perform systems analysis, resolve electrical and mechanical engineering problems, and diagnose plant conditions. Maintain liaison with offsite technical support. Provide coordination and supervision of all Company support teams operating at or in the vicinity of the site.
- 2) Radiological Protection (Radiological Advisor)
Assess onsite radiological conditions, recommend radiation protection measures, direct radiological surveys and decontamination actions, assist in assessment of offsite consequences as requested by the response organization at the EOF. Coordinate and supervise all onsite radiological surveys and investigations and provide management of the onsite radiation protection program.
- 3) Communicator (ENS Communicator)
Notify affected individuals and NRC of the emergency, establish initial contact and maintain communications with offsite groups, transmit instructions and information to and from the Site Emergency Coordinator.

Section 5.22 Figure 5-2, TSC Organization, illustrates the TSC organization chart. Specific TSC position functions are:

5.6.1 Site Emergency Coordinator

The Site Emergency Coordinator (SEC) is responsible, under the general direction of the Emergency Director, for directing onsite emergency actions from his position at the TSC.

The Site Emergency Coordinator has the authority to make ERO assignments according to availability and qualification as appropriate to carry out response activities.

- 1) The Site Emergency Coordinator will establish the emergency response organization in the TSC.

- 2) After the TSC is activated, the Site Emergency Coordinator will relieve the Shift Supervisor.
- 3) Prior to the Emergency Director assuming his position at the Emergency Operation Facility, the Site Emergency Coordinator is responsible for implementing the following non-delegable activities and authorizations:
 - a) Providing direction for all emergency response operations performed by Company personnel in the San Luis Obispo County area.
 - b) Requesting assistance as necessary for onsite or offsite radiation monitoring from Federal agencies, either through the County/State emergency response organization once established, or directly.
 - c) Authorizing changes in the Emergency Classification and NRC notification.
 - d) Authorizing any extraordinary emergency measures, such as the use of Company emergency personnel exposure limits.
 - e) Authorizing the ingestion of potassium iodide (KI) to onsite personnel.
 - f) Authorizing the ingestion of KI to offsite monitoring personnel.
 - g) Approving information for inclusion in media releases.
 - h) Authorizing overtime and other expenses associated with maintaining an appropriate onsite Emergency Organization throughout the emergency response period.
 - i) Authorizing the evacuation of the plant site and specifying the appropriate evacuation route.
- 4) The Site Emergency Coordinator is responsible for ensuring the performance of the following delegable activities:
 - a) Coordinating and directing all onsite activities.
 - b) Maintaining liaison with offsite emergency support groups providing onsite assistance and support the Emergency Director in the development of a coordinated recovery action plan for onsite.
 - c) Recommending changes in Emergency Classification to the Emergency Director.
 - d) Managing TSC Operations. This includes:
 - Collecting and analyzing technical information to assess plant operations.
 - Providing technical counsel in support of the CR.
 - Assessing radiological release potential.
 - Determining actual or potential release rates.

- On-site exposure monitoring and contamination control.
 - Repairing plant components or systems as required by the emergency and / or consequences.
 - e) Overseeing TSC communications staff.
 - f) Providing management direction to the CR through the Operations Advisor (TSC).
 - g) Providing management direction to the OSC through the OSC Director.
 - h) Notifying plant staff and other affected individuals and organizations of the emergency and assigning plant staff personnel to positions in the Onsite Emergency Organization as appropriate.
 - i) Establishing and maintaining onsite personnel accountability.
- 5) Authorizing the ingestion of KI to onsite personnel.

5.6.2 Radiological Advisor

The Radiological Advisor is responsible for the following activities:

- 1) Coordinating emergency radiological response efforts.
- 2) Advising the Site Emergency Coordinator on matters relating to radiological safety
- 3) Providing Radiological Engineering support to the TSC
- 4) Coordinating and supervising operation and control of radiological emergency data transmission systems, review and evaluation of data from these systems, and development of data and status updates for transmission offsite.
- 5) Enabling TSC radiation monitors and verifies habitability.
- 6) Trending radiation levels in the plant.
- 7) Serving as the OSC Director primary TSC contact for radiological matters.
- 8) Preparing release pathway information for dose assessment purposes.
- 9) Directing in-plant surveys, direct analysis of in-plant samples, and establish radiation and/or contamination control and boundaries.
- 10) Determining radiation protection access requirements for entry to radiologically controlled area.
- 11) Determining when an emergency exposure authorization is required and provide justification to the Site Emergency Coordinator or Emergency Director.

- 12) Coordinating briefing and dispatch of personnel into affected plant areas with the OSC Director.
- 13) Maintaining proper records and logs.

5.6.3 Engineering Advisor

The Engineering Advisor is responsible for the following activities:

- 1) Ensuring adequate Engineering support is available to support emergency response based on plant conditions and events.
- 2) Evaluating the safety consequences of the occurrence and advising the Site Emergency Coordinator of appropriate response actions and onsite and offsite recommended protective measures.
- 3) Advising the Site Emergency Coordinator on technical matters relating to nuclear and radiological safety.
- 4) Coordinating plant technical support.
- 5) Advising the Site Emergency Coordinator of actions and findings of support groups.
- 6) Assisting the Site Emergency Coordinator in determining personnel deployment for emergency support assignments.
- 7) Providing operation and control of emergency data transmission systems, and reviewing and evaluating plant data.

5.6.4 Operations Advisor

The Operations Advisor is responsible for the following activities:

- 1) Reporting initially to the Control Room to relieve the Shift Supervisor of plant operational oversight responsibilities.
- 2) Report to the TSC upon Command and Control being transferred from the Shift Supervisor to either the SEC or ED.
- 3) Providing general operational advice and assistance to the SEC and TSC Staff.
- 4) Coordinating maintenance activities between TSC and OSC
- 5) Advising the TSC staff on plant equipment repairs assessment, site materials capabilities, and resource status as required.

5.6.5 ENS Communicator

The Emergency Notification System (ENS) Communicator is responsible for maintaining communications with the NRC over the ENS telephone line.

5.6.6 Security Advisor

The Security Advisor is responsible for the following activities:

- 1) Coordinating site security activities and advises the SEC on security matters.
- 2) Performing accountability in the TSC.
- 3) Coordinating evacuation or early dismissal of nonessential site personnel.
- 4) Overseeing the fitness for duty program in the TSC.

5.7 OPERATIONAL SUPPORT CENTER

The functions of the OSC include:

- 1) Providing a location for staging trained personnel for assignment to relieve personnel and staff special emergency positions on an as-needed basis for:
 - Emergency maintenance, repair, and damage control
 - Firefighting, search and rescue, and first aid
 - Emergency sampling of plant fluids
 - A location for storage of selected emergency response equipment
 - Personnel decontamination
- 2) Providing an office for the OSC Director who determines and recommends repair/damage control and corrective actions for plant mechanical, instrumentation, and electrical systems.
- 3) Section 5.23 Figure 5-3, OSC Organization, illustrates the OSC organization chart. Specific OSC position functions are:

5.7.1 OSC Director

The OSC Director is responsible for the following activities:

- 1) Directing activities of OSC personnel.
- 2) Coordinating a repair plan to recover from the emergency, in cooperation with the SEC and Operations Advisor.
- 3) Coordinating the fabrication and sets up of any special equipment necessary at the direction of the SEC and Operations Advisor.
- 4) Coordinating the movement and accountability of maintenance teams.
- 5) Providing OSC status updates to the TSC.

- 6) Planning and coordinating resources to conduct assessment, maintenance, repair or installation of special equipment.
- 7) Providing technical advice to evaluation personnel in the TSC.
- 8) Coordinating plant access and ensuring 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.
- 9) Maintaining the capability of communicating with personnel engaged in operations, maintenance or chemistry and radiation protection emergency response activities.
- 10) Assisting the Control Room and TSC/OSC in communicating with response teams.

5.7.2 RP Technicians

RP Technicians are responsible for the following activities:

- 1) Performing radiation surveys around the plant site and obtaining appropriate samples for analysis.
- 2) Maintaining initial communications with the Radiological Manager and subsequently with the FMT Coordinator for reporting of monitoring results and maintaining cognizance of the emergency situation.

5.8 EMERGENCY OPERATIONS FACILITY

The principal functions of the EOF are to provide for strategic planning and control. The principal functions of the EOF staff are:

- 1) Control and Coordination

The EOF utility staff, under the direction of the Emergency Director (ED), manages and coordinates all PG&E technical direction and control of the integrated emergency response effort.

When activated, the EOF determines status of notifications, provides PARs and Public Information releases under the ED's authority.

2) Liaison/Interface

The EOF provides management level interfaces with offsite response organizations.

The EOF staff also interfaces with the JIC staff to provide information to the public through the media.

3) Assessment

The EOF provides a centralized location, immediately available to County decision makers in the County EOC for unified dose assessments.

4) Decision-Maker Staff Support

The EOF provides a center for response organizations to make staff specialists available to provide data and recommendations to County decision makers for their use in taking protective actions relating to either dose assessment evaluations or predictions of degraded conditions.

5) Company Interface

Site emergency response activities are communicated to the Company support organization by the Government Relations Coordinator located at the EOF.

The Government Relations Coordinator is provided with communications via the Company telephone system and data links through the local area network (LAN)/wide area network (WAN).

Section 5.24 Figure 5-4, EOF Organization, illustrates the EOF organization chart. Specific EOF position functions are as follows:

5.8.1 Emergency Director

After arrival at the Emergency Operations Facility, the Emergency Director maintains overall command of PG&E emergency response operations during the Alert, Site Area Emergency, and General Emergency classifications. The Emergency Director provides direction and support for onsite emergency response actions to the Site Emergency Coordinator, and ensures coordination of DCPD emergency actions with those of government, and General Office support through the PG&E Emergency Operations Center (PG&E EOC). The Emergency Director also approves plant status updates and information for inclusion in media releases.

Emergency Director responsibilities and authorities are separated into two categories. The first category involves decision making for overall emergency response direction and protective action recommendations that may impact the general public. The second category relates to the administration and management of the utility response organization. Duties in the latter category include:

- Interface between DCPD/PG&E and Federal/State/local emergency response agencies.
- Communicate plant status updates and radiological release data to NRC/FEMA, County/State EOC, PG&E EOC, and JIC personnel.

- Provide administrative, technical, and logistical support to station emergency operations.
- Ensure continuity of emergency organization resources.
- Determine when to deactivate the Emergency Response Organization.

Emergency Director responsibility and authority for overall response direction is initially assumed by the Site Emergency Coordinator until the Emergency Director position is assumed at the EOF by the assigned staff member.

EOF administrative and facility management functions are assumed by the EOF Director. The Emergency Director's primary responsibility is to place the EOF in an operational status capable of early field monitoring team direction and control, Emergency Assessment and Response System (EARS) operation, and plant data analysis.

- 1) The Emergency Director is responsible for implementing the following non-delegable activities and authorizations:
 - a) Providing direction for all emergency response operations performed by Company personnel.
 - b) Authorizing any recommendations of the Company regarding evacuation, or other emergency measures including PARs, to non-Company emergency support groups.
 - c) Authorizing changes in the Emergency Classification and notification of offsite authorities.
 - d) Authorizing any extraordinary emergency measures, such as the use of Company emergency personnel exposure limits.
 - e) Authorizing the ingestion of KI to offsite monitoring personnel.
- 2) The Emergency Director is responsible for ensuring the performance of the following delegable activities:
 - a) Approving information for inclusion in media releases.
 - b) Requesting assistance as necessary for onsite or offsite radiation monitoring from Federal agencies, either through the County/State Emergency Operations Center once established, or directly.
 - c) Maintaining liaison with offsite emergency response organizations providing onsite assistance and of a coordinated recovery action plan for onsite.
 - d) Modifying or re-organizing the Emergency Response Organization based upon the type of accident and specific accident emergency response needs.
 - e) De-escalating the emergency classification and/or establishing a recovery organization.

5.8.2 EOF Director

The EOF Director is responsible for the following activities:

- 1) Directing the set up and staffing of the utility portion of the EOF and establishing communications.
- 2) Providing administrative and management direction of the EOF staff in support of the event response.
- 3) Keeping the Site Emergency Coordinator informed and serving as his contact at the EOF.
- 4) Coordinating access control of the EOF and UDAC portion of the building as well as the JIC with the facility security and County Sheriff's Watch Commander.

5.8.3 Radiological Manager

The Radiological Manager is responsible for the following activities:

- 1) Developing radiological data and status information for evaluation by UDAC personnel and distribution to EOF and EOC personnel.
- 2) Directing the activities of field monitoring teams and the Offsite Emergency Laboratory (OEL).
- 3) In coordination with the UDAC Coordinator, maintaining records, and providing findings in status reports.
- 4) Performing dose projections and providing radiological assessment information for the determination of PARs. Formulating PARs for ED approval.
- 5) Ensuring proper exposure controls are taken for DCPD offsite emergency response personnel.
- 6) Monitoring the plant telephone bridge line.
- 7) Directing and coordinating the DCPD offsite dose assessment activities.
- 8) Coordinating the deployment of FMTs in support of dose assessment activities.
- 9) Coordinating assessment and communications with offsite agency personnel in the UDAC.

5.8.4 Dose Assessor

The Dose Assessor is responsible for the following activities:

- 1) Performing dose projections using dose assessment computer models or manual dose calculations.

- 2) Updating the Radiological Manager and UDAC staff on the status of any plant release and of dose projection results.

5.8.5 Field Monitoring Team Coordinator

The Field Monitoring Team Coordinator is responsible for the following activities:

- 1) Dispatching and coordinating the activities of the Field Monitoring Teams (utility and County) and Offsite Emergency Lab.
- 2) Providing recommendations regarding establishing controlled access areas and determining the boundaries of such areas in cooperation with County personnel assigned to the monitoring team.
- 3) Coordinating monitoring activities for the Monitoring, Decontamination, and Reception Centers.
- 4) Establishing and maintaining communications with the FMTs.
- 5) Recording and reporting field monitoring survey, sample, and exposure information.

5.8.6 Offsite Field Monitoring Teams (FMTs)

The Offsite FMTs are responsible for the following activities:

- 1) Performing radiation surveys and obtaining environmental samples to monitor and track any releases of radioactivity outside the Protected Area.
- 2) Maintaining communications with the FMT Coordinator to report environmental conditions and to obtain event information and instructions.
- 3) Coordinating monitoring activities and reporting of results with the County personnel assigned to the monitoring team.
- 4) Providing recommendations regarding establishing controlled access areas and determining the boundaries of such areas in cooperation with County personnel assigned to the monitoring team.
- 5) Assisting in monitoring personnel and evaluating their exposure as required.

5.8.7 Engineering Liaison

The Engineering Liaison is responsible for the following activities:

- 1) Activating and operating plant data computer systems for obtaining plant data.
- 2) Providing technical assistance to response personnel.
- 3) Notifying and updating INPO for any event of Alert or higher.
- 4) Disseminating plant status updates if automated systems fail.

5.8.8 Communications Coordinator

The Communications Coordinator is responsible for the following activities:

- 1) Assisting the Emergency Director in preparing and approving notifications.
- 2) Overseeing the transmittal and distribution of notifications.
- 3) Monitoring plant and environment radiological data.
- 4) Maintaining radiological communications with the NRC on the HPN line.
- 5) Keeping the Radiological Manager informed on NRC requests and reporting activities.
- 6) Transmitting, receiving, and documenting notification information.
- 7) Notifying corporate offices and individuals of the event.

5.8.9 Advisor to the County

The Advisor to the County is responsible for the following activities:

- 1) Acting as a technical specialist at the County EOF, informing County response staff members of plant conditions and recommended protective actions.
- 2) Maintaining awareness of plant conditions and emergency response activities.
- 3) Assisting in the interface between DCPD and County EOC personnel.

5.8.10 Government Relations Coordinator

The Government Relations Coordinator is responsible for the following activities:

- 1) Monitoring actions and events from the EOF to provide information to other Government Relations Representatives and JIC personnel.
- 2) Coordinating communication between PG&E offices in Washington, D.C., Sacramento and San Francisco.
- 3) Evaluating and responding to external Company governmental issues and informing the ED of corporate status and decisions.
- 4) Communicating PG&E public information from the JIC to County EOC and EOF personnel.
- 5) Supporting the development and review of information for use in media statements.
- 6) Coordinating with JIC staff for tracking and controlling rumors at the EOF.

5.9 JOINT INFORMATION CENTER

The principal function of the JIC is to provide information to the general public through the media.

Section 5.25 Figure 5-5, JIC Organization, illustrates the JIC organization chart. Specific JIC position functions are:

5.9.1 Company Spokesperson

The Company Spokesperson is responsible for the following activities:

- 1) Consulting with the Public Information Officer (PIO) and other Company officials to provide the following in an emergency:
 - a) Characterizes Company responsibility for the event.
 - b) Characterizes concern for any impacts to public.
 - c) Describes Company emergency response actions
- 2) Participating in media briefings to provide additional technical expertise and representation of the Company at the senior leadership level.
- 3) Participating in the Emergency Director video conference briefings and assisting with the development of media briefing talking points.
- 4) Working closely with Company government and public relations staff to assist with community issues related to the emergency.

5.9.2 JIC Director

The JIC Director is responsible for the following activities:

- 1) Acting as a point of contact for other facility managers and maintaining current emergency status information throughout the event.
- 2) Overseeing the functional organization of the JIC, including facility setup and staffing, fitness-for-duty of ERO personnel (including behavioral assessments), coordinating additional resources and personnel, JIC security, administrative support, parking, etc.
- 3) Participating in intra facility video conference briefings to obtain approved public information.
- 4) Coordinating the collection of information and the development of draft media releases and media briefing talking points by the PIO.
- 5) Coordinating with the PIO on any changes, corrections or additions to media releases and media briefing talking points and ensuring that they are available for use in time for media briefings.

- 6) Coordinating with the Government Relations Coordinator for investigating unanswered questions posed by the media and resolving reported rumors.
- 7) Ensuring the JIC is adequately staffed at all times during an emergency.
- 8) Communicating with the Company Spokesperson while in transit for providing status of facility readiness, where to go first, key issues for the NRC, etc.

5.9.3 Public Information Officer

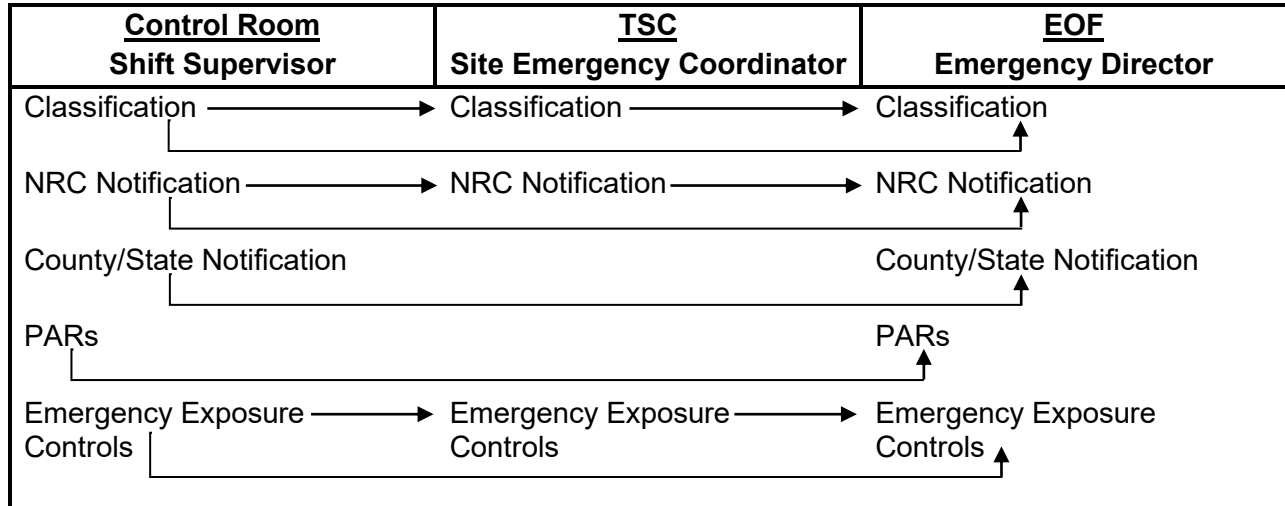
The PIO is responsible for the following activities:

- 1) Coordinating media briefings and any follow-up media interviews including plant visits.
- 2) Serving as a PG&E Spokesperson and lead monitor during media briefings.
- 3) Reviewing and approving public information prior to its release to the media and coordinating with the JIC Director for clarity.
- 4) Participating in intra facility video conference briefings to obtain approved public information.
- 5) Coordinating media briefings with the Company Spokesperson, Company officials, the SLO County PIO, and other participating government agencies.
- 6) Developing communications strategies, key messages and other material for the media.
- 7) Identifying Company Spokesperson(s) and other Company representatives at media briefings.
- 8) Providing regular communications to the PG&E External Communications Department regarding the status of media briefings and approved and released information, and additional staffing needs.
- 9) Collecting facts and developing media briefing talking points and media releases, as directed using approved information from video conferences, Emergency Notification Forms and tailboard forms.
- 10) Attending pre-briefings conducted with the SLO County PIO to review the agenda, logistics and key messages used during each media briefing.
- 11) Review and assess media coverage and NRC Event Reports.

5.10 TRANSFER OF COMMAND AND CONTROL

The Command and Control functions of Classification, NRC Notification, and Emergency Exposure Controls may be transferred directly to the TSC or EOF depending on which facility is activated first. If the TSC is activated before the EOF, the Classification, NRC Notification, and Emergency Exposure Controls command and control functions will be transferred from the TSC

to the EOF upon activation of that facility. The Command and Control functions of County/State Notification and PARs transfer only directly to the EOF. Below is a diagram depicting the transfer process.

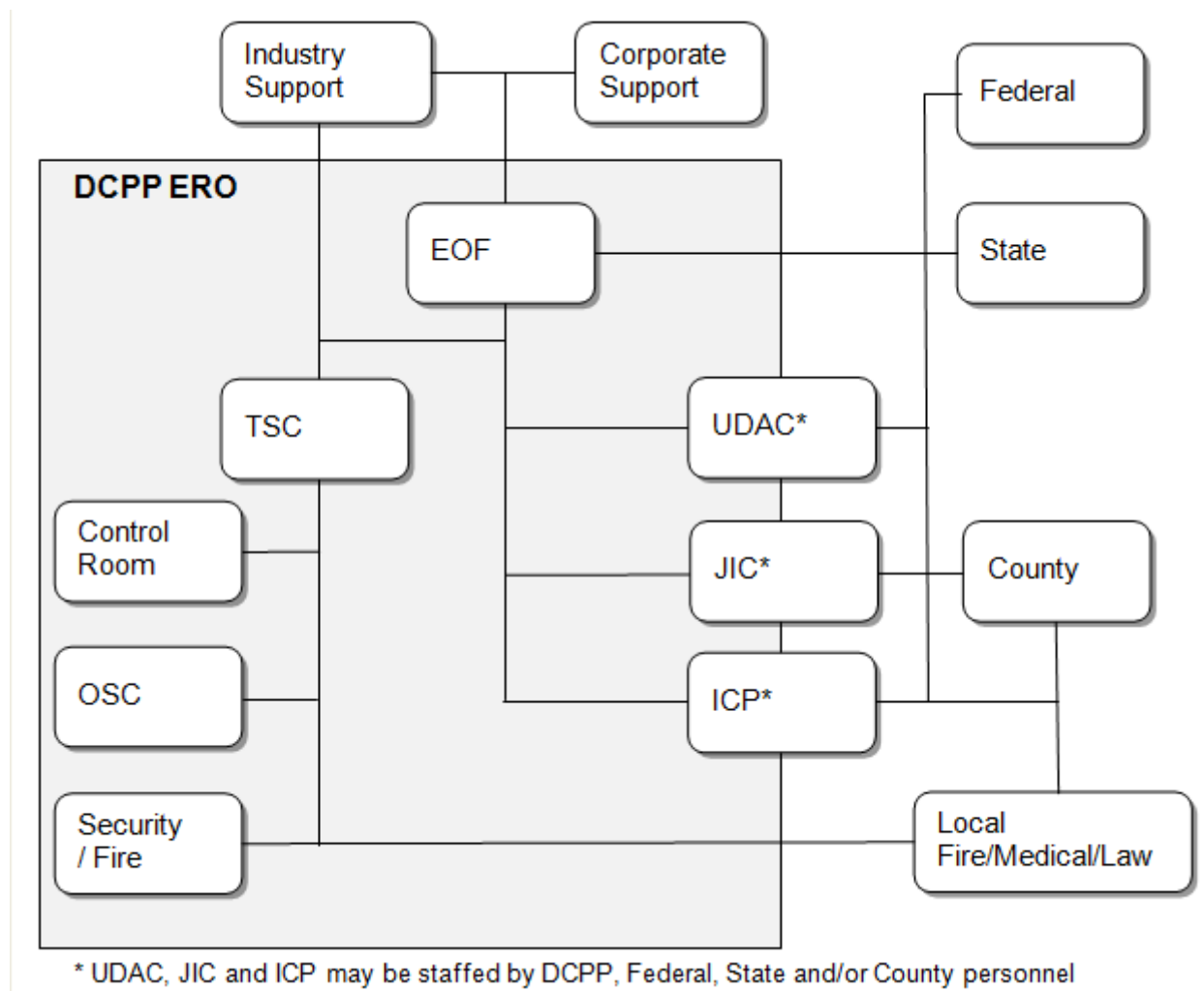


5.11 FACILITY FUNCTIONAL RELATIONSHIPS

The representation of the integrated relationships between government response organizations and the licensee is shown in Figure 1 below.

The individual in charge at each center is responsible for center communications, recording important events, decisions, and actions, and assuring resource continuity (technical, administrative, and material).

FIGURE 1



5.12 COMPANY SUPPORT

Company support capabilities include public information, procurement of materials, contract services, construction services, and meteorology. These capabilities, for the most part, are located at PG&E's General Office Complex in San Francisco. In the event of a general or company-wide emergency, PG&E EOC is staffed either in San Francisco or at an alternate site in Vacaville. Due to the physical distance between the PG&E EOC and DCPP, an extensive communications system is used to notify PG&E EOC personnel, exchange status information, and coordinate support requests. The primary PG&E EOC role will be to assist the with overall recovery effort, particularly those activities which are conducted offsite.

To maintain preparedness of the PG&E EOC and Incident Command System (ICS) management structure, and comply with California Public Utility Commission requirements, the Company Emergency Plan makes provisions for conducting periodic drills and exercises of simulated emergency conditions.

In an emergency classification level of Alert or higher the Emergency Director will take command and control of the event at the EOF and will direct all emergency response activities. The Emergency Director will work with the Site Emergency Coordinator, the PG&E EOC and local, State, and Federal officials, to develop a comprehensive response for the specific emergency situation. The Emergency Director will communicate with the Chief Nuclear Officer and Nuclear Liaison in the PG&E EOC to arrange for the necessary Company resources to support the short-and/or long-term emergency response effort.

5.12.1 PG&E EOC Organization

The PG&E EOC is structured following the National Incident Management System (NIMS) ICS modified to address PG&E's unique operating requirements. All Company organizations with a role in emergency response are represented in the PG&E EOC, including a Nuclear Liaison. The Nuclear Liaison is the primary point of contact for technical information between the EOF and PG&E EOC.

5.12.2 Notification of Company Departments

It is Company policy that selected departments be routinely informed of plant activities and/or notified of unusual events. Nuclear generation is routinely informed of overall plant operations and promptly notified of all emergencies.

The Chief Nuclear Officer is the primary individual in charge of Company support activities. If the Chief Nuclear Officer cannot be contacted directly by the plant staff via Company or commercial telephone systems, notification will be through the use of a paging system. The Company support organization is also immediately notified of any occurrence that influences the plant's load carrying capability.

Company support activities are directed by the Emergency Director through the Government Relations Coordinator located at the EOF.

The Government Relations Coordinator is provided with communications via the Company telephone system and data links through the LAN/WAN.

5.13 NON-COMPANY ORGANIZATIONS SUPPORT

Other organizations involved in emergency response include government agency organizations at the Federal, State, and local levels and commercial enterprises. Various non-Company groups have written agreements outlining their emergency response commitments. When an exchange of information, response action or concept of operation is governed by a regulation, law, or executive order, the commitments are documented by either signature papers within the body of the planning documents or by written agreements. This commitment will outline specific work to be performed or be an agreement to respond to an emergency. These agreements are maintained and verified yearly.

5.13.1 Local Services Support

Additional support from regional and local services has been contracted to further enhance PG&E's capability to handle all types of onsite emergencies. These services include medical, hospital, ambulance and firefighting support. These services provide immediate 24-hour-a-day, on-call support.

Emergency notifications and communications with these support organizations are via the San Luis Obispo County Dispatch Center.

5.13.2 Letters of Agreement

Letters of Agreement for services are maintained and reviewed annually with the organizations listed below.

- 1) Cambria Community Healthcare District
- 2) CALFIRE / San Luis Obispo County Fire Dept.
- 3) Department of California Highway Patrol
- 4) DOE Oak Ridge Operations Office
- 5) French Hospital Medical Center
- 6) INPO Nuclear Power Plant Agreement
- 7) Marian Regional Medical Center
- 8) PG&E Company Helicopter Operations Department
- 9) San Luis Ambulance Service, Inc.
- 10) United States Coast Guard

5.13.3 Medical Consultants

DCPP has agreements with local hospitals for handling accidents involving radioactive contamination. The Radiation Emergency Assistance Center/Training Site (REAC/TS) is also available for consultation and response to radiation related injuries. This support is discussed in Section 6.

5.13.4 Hospitals

French Hospital in San Luis Obispo will handle cases of both radiological and non-radiological injuries occurring at DCPP.

The Company also has an agreement with Marian Medical Center in Santa Maria to handle injured persons who may be contaminated with radioactive materials.

5.13.5 Ambulance Service

Arrangements have been made with ambulance services in San Luis Obispo County to handle cases of personnel injury at DCPP, including those involving radioactive contamination.

5.13.6 Firefighting Support

CALFIRE/San Luis Obispo County Fire Department will be called to assist with a fire in the plant or a fire in the surrounding grasslands. Designated members of the CALFIRE/SLO County Fire

Department are trained in radiation protection practices. DCPD provides trained personnel to monitor potential radiation exposures to offsite fire agency personnel. The CALFIRE/SLO County Fire Department is a participating agency in the San Luis Obispo County/Cities "Nuclear Power Plant Emergency Response Plan." The California Firefighting mutual aid agreement provides the memorandum of understanding for firefighting support through the State.

5.13.7 Air Transportation

Various air transportation services are available to the Company under emergency response conditions. Arrangements with commercial enterprises are discussed in Section 7.

5.14 NON-COMPANY INDUSTRIAL SUPPORT ORGANIZATION

5.14.1 Notification

Plant implementing procedures make provisions for early notification and information transfer to these various support organizations. The list of designated persons and emergency phone numbers are used by the plant emergency response staff to make early contact to place these organizations on alert status. This listing would include primary manufacturing suppliers, other regional nuclear utilities, and specialty nuclear utility response organizations.

The principal response organizations in the non-Company industrial organization category include:

- 1) Westinghouse Electric Corporation, Pittsburgh, Pa.

The DCPD Nuclear Steam Supply Systems were supplied by Westinghouse. In its capacity as a supplier, Westinghouse can lend emergency assistance to the Company on an around-the-clock basis.

The Westinghouse Electric Company Emergency Response Plan:

- a) Defines the Westinghouse emergency response organization, role, scope, functions and responsibilities, and how it is activated.
 - b) Identifies key Westinghouse personnel available in the early phases of an emergency response.
 - c) Defines the primary Westinghouse interfaces with involved parties.
 - d) Defines the Westinghouse role in emergency news communications and their interrelationship with the Company and news media.
- 2) United States Nuclear Industry Event Response Framework

The United States Nuclear Industry Event Response Framework is a coordinating guide for the industry support organizations. The Framework is used by the industry support organizations for the purpose of coordinating response to an event that affects the nuclear industry. The Framework outlines each agencies roles regarding, response, technical data assessment, logistics, and operating experience that they will provide.

The industry support organizations within the Framework are:

- Nuclear Energy Institute (NEI)
- Institute of Nuclear Power Operations (INPO)
- Electric Power Research Institute (EPRI)

5.15 COORDINATION WITH PARTICIPATING SAN LUIS OBISPO COUNTY AGENCIES

San Luis Obispo County authorities are assigned the lead role in coordinating offsite emergency activities. The County has prepared a plan specifically applicable to DCCP: "San Luis Obispo County/Cities Nuclear Power Plant Emergency Response Plan."

The San Luis Obispo County/Cities Plan will be activated upon notification by PG&E of an event at the Alert or higher Emergency Classification level, or by an independent remote alarm indication located in the State Warning Center in Sacramento staffed 24 hours a day by the California Office of Emergency Services (CA OES). Initial PG&E notification will be received by the County Sheriff's Department Watch Commander from the plant Control Room via dedicated phone line, commercial phone, or radio.

Upon notice of a potential accident, PG&E will immediately transmit to the County all of the information required for initial assessment including protective measures recommended at that time. The response taken will be in accordance with the joint County/PG&E Emergency Classification system ensuring there are no misunderstandings of event severity.

The County Emergency Response Organization has overall responsibility for authorization and coordination of offsite emergency response activities, including:

- 1) Coordination with CA OES and other participating State and local agencies.
- 2) Determining the appropriate response and implementing appropriate protective actions for the general public.
- 3) Monitoring offsite locations and controlling access to problem areas. The Company will assist with offsite environmental monitoring as well as provide monitoring for evacuated populations and offsite emergency workers.
- 4) Arranging for medical treatment, health, and sanitation services for the general public. Procuring and distributing stable iodine thyroid blocking tablets for institutional populations as well as emergency workers. Initial stocks of KI for Emergency Workers are provided by PG&E.
- 5) Public information releases regarding offsite response and protective measures to be taken. (The Company is responsible for media releases concerning onsite events and protective measures. Media releases pertaining to onsite conditions will be coordinated with County public information personnel.)

Since the Sheriff's Department Watch Commander is staffed 24-hours-a-day the Control Room or TSC will make initial notification to the Sheriff's Department. The Sheriff's Department, in turn, will notify selected members of the County Emergency Response Organization. Since both the County EOC and the PG&E EOF are co-located, communication channels will remain open from plant site to this offsite location during County participation.

The Emergency Director will:

- Keep the County informed of meteorological conditions, results from pertinent surveys by Company personnel, and conditions at the plant. An Advisor to the County, a Company representative, will be assigned to the County Emergency Operations Center to assist in interpretation of technical information received from DCP.
- Recommend appropriate protective actions to the County.

The Site Emergency Coordinator and the Emergency Director will be in communication with the technical personnel from the various Federal and State agencies to formulate a coordinated plan of action.

County facilities are used for centralized public information dissemination. A local Company public information specialist will serve as a spokesperson for the onsite and offsite activities of the Company.

Initial media releases and statements will be coordinated by the County Public Information Manager (PIM) in the EOC and the PG&E Public Information Officer (PIO). Contact and briefings with media personnel will be held at the Emergency Response Joint Information Center off Highway 1 (near the EOF). Media briefings may be held at the JIC at the ALERT or higher level classification. Media briefings may also take place at the Company EOC.

The Emergency Director, through the PIO will establish a schedule and format for updates to the Company Spokesperson, San Luis Obispo County and other agencies at the County EOC. The County will promulgate jointly agreed upon position statements.

Rumor control is under the jurisdiction of the County organization. Centralized and authenticated information provides the Joint Information Center with a consistent, reliable source of information.

5.16 COORDINATION WITH PARTICIPATING STATE OF CALIFORNIA AGENCIES

The CA OES will be notified under the same circumstances as the County. CA OES provides assistance as outlined in the State of California "Nuclear Power Plant Emergency Response Plan." CA OES and the California Department of Public Health (CDPH) are the primary State response agencies for nuclear power plant accidents. Summaries of their responsibilities under terms of the State Plan are given below.

5.16.1 California Office of Emergency Services

CA OES has executive authority for the coordination of State resources and the responsibility of general planning. CA OES will:

- Alert State agencies, Federal organizations (other than NRC), volunteer organizations, and adjacent Counties and States.
- Coordinate State radiological monitoring of areas, personnel, and equipment to support local County authority.
- Assess radiological situations.
- Operate the California State Warning Center (SWC), the State 24-hour communication network.

- Establish liaison with utility representatives.
- Coordinate all requests for Federal assistance.
- Prepare and coordinate public information and media releases with local, State, and Federal agencies and the Company.
- Coordinate State mutual aid.
- Update and maintain the State of California Nuclear Power Plant Emergency Response Plan.
- Coordinate, review, and approve emergency plans by other State agencies and some local jurisdictions.
- Assist the utility, local and State response agencies in development, conduct and coordination of offsite training programs. Evaluate offsite training programs developed by other agencies.
- Assist in the development, conduct, and coordination of offsite drills and periodic exercises. Evaluate and critique the drills and exercises. Recommend improvements in plans, procedures, and training programs.

5.16.2 California Department of Public Health

CDPH assists CA OES in maintaining an adequate state of emergency preparedness and provides technical and advisory support. As specified in the State Plan, CDPH will:

- Assist in monitoring the environment, personnel, and equipment in support of local authority.
- Establish and direct measures to mitigate radiological impact on public health. Coordinate with Department of Agriculture and local Agricultural Commission to prevent consumption of unacceptably contaminated food and fodder.
- Establish human exposure criteria; assess public impact of radiation levels. Maintain data on population dosimetry.
- Establish maximum contamination levels for controlled areas. Direct and assist local jurisdictions in defining contaminated areas. Establish measures to limit the spread of contamination.
- Identify laboratories capable of providing radiological support, including assay of ingestion pathway samples.
- Establish levels and guidance for protective action for the ingestion pathway.
- Direct and assist in collection of, and provide for laboratory analysis of, food and fodder samples taken by State and local authority.
- Establish policies and procedures for potential use of prophylactic substances to prevent or reduce the biological effects of radiation.
- Establish radiological safety criteria for recovery and re-occupancy of controlled areas.

5.17 COORDINATION WITH PARTICIPATING FEDERAL GOVERNMENT AGENCIES

The National Response Framework (NRF) integrates Federal domestic prevention, preparedness, response, and recovery plans into a single all-discipline, all-hazards plan. The NRF consists of a "base plan" plus multiple subject-specific annexes that expand on, and further delineate, interagency roles, responsibilities and activities in response to particular incidents.

5.17.1 Nuclear Regulatory Commission

The NRC responds to incidents under its own statutory authorities and responsibilities in accordance with the NRF and, if applicable, as an integral part of the overall response by the Federal Government. Under the NRF's Nuclear/Radiological Incident (NRI) Annex, the NRC is the Federal "Coordinating Agency" that owns, has custody of, authorizes, regulates, or is otherwise deemed responsible for incidents involving facilities and/or materials licensed by the NRC. Accordingly, the NRC performs the specified Federal-level response functions, as appropriate and consistent with the agency's authorities and responsibilities.

For incidents below the threshold of an Incident of National Significance, the NRC, as the Coordinating Agency, performs the Federal-level functions and coordinates the overall Federal response as provided in the NRI Annex. The designated "cooperating agencies" (e.g., Department of Energy, Environmental Protection Agency, Department of Agriculture) provide assistance and support to the NRC. For Incidents of National Significance, the Department of Homeland Security (DHS) is responsible for the overall coordination of Federal response activities and the NRC, as Coordinating Agency, performs the annex-specified Federal-level functions in concert with DHS.

5.17.2 Federal Emergency Management Agency

FEMA serves as the NRI "annex coordinator" of Federal resources and coordinates the assistance to affected State, local and tribal governments under the Stafford Act or Federal-to-Federal support provision of the NRF.

5.17.3 Department of Energy

Under the NRF NRI Annex, the Department of Energy (DOE) will dispatch radiological assistance teams to aid in monitoring and provide technical guidance. These teams are advisory and will not assume control from local authorities. Teams can be dispatched from Oakland, Livermore, Los Angeles, San Diego, and Las Vegas. Normally the CA OES will be the primary contact for requesting DOE assistance.

Response resources available from the DOE regional offices include:

- Federal Radiological Monitoring & Assessment Center (FRMAC)
- Radiological Assistance Program Teams (RAP)
- Atmospheric Release Advisory Capability (ARAC)
- Joint Nuclear Accident Coordination Center
- Nuclear Emergency Search Team (NEST)

Although these resources could originate from Lawrence Livermore Laboratory near Livermore, California, the DOE aircraft and helicopters providing transportation support would originate from the DOE Las Vegas, Nevada facilities. Transit time for team response, once alerted, would be approximately six hours.

5.17.4 Coast Guard

The USCG may be requested to assist in emergency actions involving vessels and persons, off-shore and adjacent to the plant. The Coast Guard has one or more vessels based at Morro Bay, approximately eight miles north of the plant. Upon notification, the Coast Guard will notify

and attempt to remove persons and vessels from affected coastal waters. They will prevent vessels from entering affected areas and vessels suspected of being radioactively contaminated until they can be surveyed. The Coast Guard maintains "U.S. Coast Guard Procedures to be followed upon Notification of an Emergency at Diablo Canyon Power Plant."

The San Luis Obispo County/Cities Emergency Response Plan provides that the Sheriff's Watch Commander will make notifications to the USCG. If the situation at the plant requires immediate protective actions on the part of the general public and the County Emergency Operations Center has not had time to be activated, the plant will notify the USCG to place them on standby or make recommendations for protective actions as appropriate.

5.17.5 Environmental Protection Agency

EPA, through its Nuclear Radiation Assessment Division and its Office of Radiation Programs in Las Vegas, can provide trained health physics personnel, field sampling equipment and laboratory facilities for assessment and monitoring during an emergency. EPA provides radiological monitoring support for DOE in initial stages of an emergency and assumes the lead responsibility in the intermediate to long-term recovery period.

5.18 CROSS REFERENCE TO NUREG-0654

NUREG 0654	DCPP Emergency Plan	NUREG 0654	DCPP Emergency Plan
A.1.a	5.11, 5.12, 5.13, 5.14, 5.15, 5.16	F.1.a	5.6, 5.14
A.1.b	5.11, 5.12, 5.13, 5.14, 5.15, 5.16	F.1.b	5.3, 5.14
A.1.c	5.10	F.1.c	5.6, 5.8
A.1.d	5.3.2, 5.6.1, 5.8.1	F.1.d	5.6,
A.1.e	5.4.1, 5.12.1, 5.14, 5.15.1	F.1.e	5.3, 5.14
A.3	5.12, 5.12.2, 5.14, 5.15, 5.16	G.3.a	5.6, 5.8, 5.9
A.4	5.4.1, 5.6.1, 5.8.1, 5.9.2	G.3.b	5.9, 5.14
B.1	5.1.3, 5.18	G.4.a	5.9
B.2	5.3.2	G.4.b	5.9
B.3	5.3.2, 5.6.1	G.4.c	5.9, 5.14
B.4	5.3.2, 5.6.1, 5.8.1	H.1	5.6, 5.7
B.5	5.3, 5.6, 5.7, 5.8, 5.9, 5.18	H.2	5.8
B.6	5.10, 5.19, 5.20, 5.21, 5.22, 5.23	I.8	5.6, 5.8
B.7.a-d	5, 5.1.1, 5.11, 5.3.3, 5.6, 5.6.1, 5.8.1, 5.8, 5.8.8, 5.9.2, 5.9.1, 5.9.3,	K.2	5.3, 5.6, 5.7, 5.8
B.8	5.13	L.1	5.3, 5.12
B.9	5.1.1, 5.12, 5.14	L.4	5.3
C.1.a-c	5.14, 5.16, 5.6.1, 5.8.1, 5.11,	P.3	5.1.1
C.2.b	5.8	P.6	5.11, 5.12, 5.13
C.4	5.8, 5.12	P.7	5.17
E.4.a to n	5.14		

5.19 TABLE 5-1, DCPD ON-SHIFT AND AUGMENTED ERO

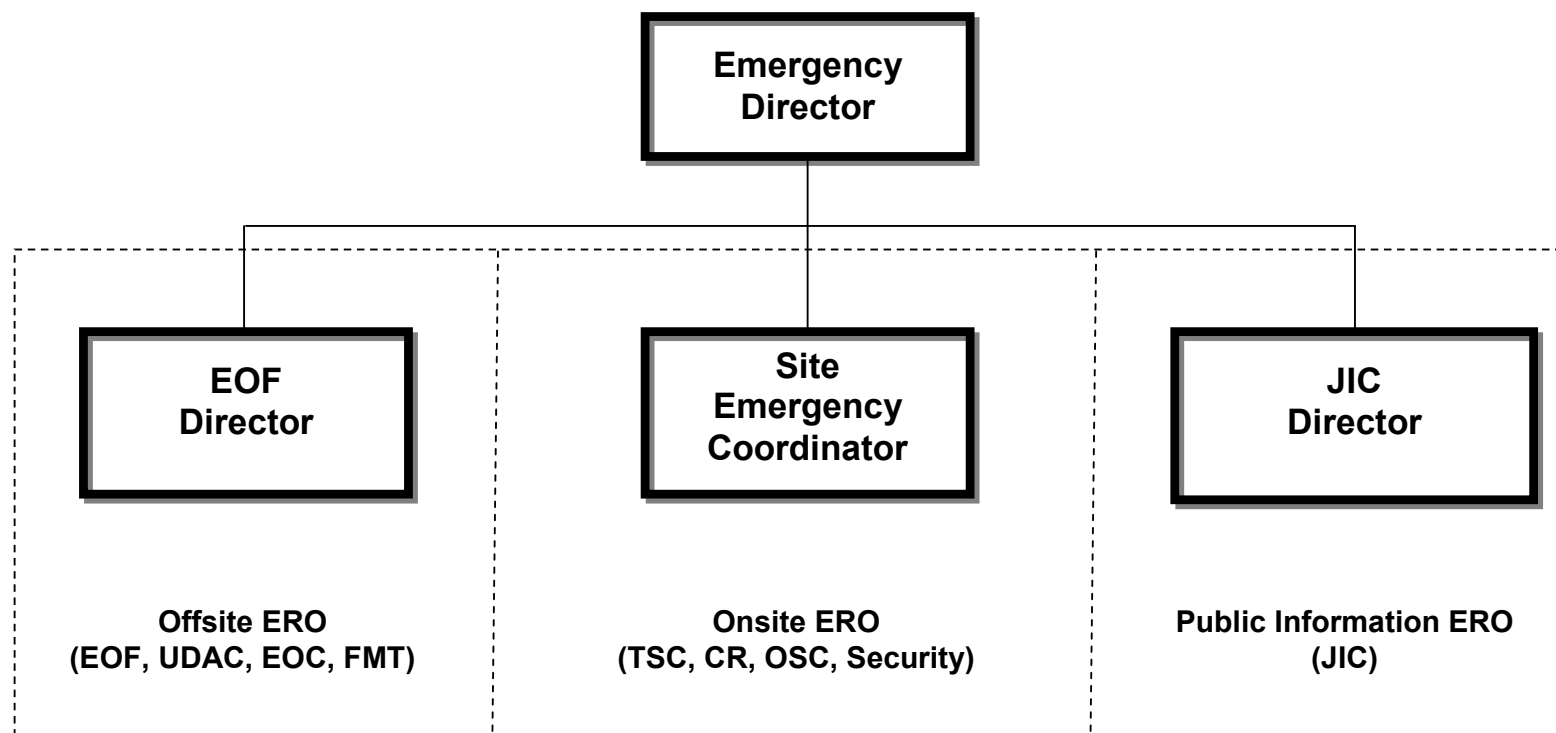
Functional Area	Major Tasks	Emergency Positions	Shift Staffing	60 Minutes	90 Minutes
Plant Operations and Assessment of Operational Aspects	Control Room Staff	Shift Supervisor (qualified as CFH)	1	---	---
		CFH	1	---	---
		NCO	3	---	---
		Operations Advisor (CR/TSC)	---	1	---
Emergency Direction and Control	Command and Control	Shift Supervisor	1*	---	---
		Site Emergency Coordinator (TSC)	---	---	1
		Emergency Director (EOF)	---	---	1
		EOF Director (EOF)	--	--	1
Notification and Communication	Licensee, Local/State, Federal	CFH/NCO	1*	---	---
		ENS Communicator (TSC)	---	---	1
		Communications Coordinator (EOF)	---	---	1
		Engineering Liaison (EOF)	---	---	1
		Government Relations Coord. (EOF)	---	---	1
		Advisor to the County (EOF)	---	---	1
Radiological Assessment	Dose Assessment	CFH/RP Technician	1*	---	---
		Radiological Manager (EOF)	---	---	1
		Dose Assessor (EOF)	---	---	1
	Offsite Surveys	FMT Coordinator (EOF)	---	---	1
		FMT Leader (RP Technician) (EOF)	---	---	2
		FMT Driver (EOF)	---	---	2
	Onsite (out-of-plant) Surveys	RP Technician (OSC)	---	1*	---
	In-plant Surveys	RP Technician (OSC)	2	1	---
Plant System Engineering, Repair, and Corrective Actions	Technical Support	Radiological Advisor (TSC)	---	---	1
		CFH	1*	---	---
		Engineering Advisor (TSC)	---	---	1
		Operations Advisor (CR/TSC)	---	1*	---
	Repair and Corrective Actions	Radiological Advisor (TSC)	---	---	1*
In-Plant Protective Actions	Radiation Protection	OSC Director (OSC)	--	--	1
Firefighting	---	RP Technicians (OSC)	2*	1	---
First Aid and Rescue Operations	---	Fire Department	5	Local Support	Local Support
Site Access Control and Personnel Accountability	---	Industrial Fire Officers	2*	Local Support	Local Support
Security and Accountability	Security and Accountability	Security Personnel	Per Security Plan	Local Support	Local Support
TOTAL:			12	3	18

* May be performed by someone filling another position having functional qualifications.

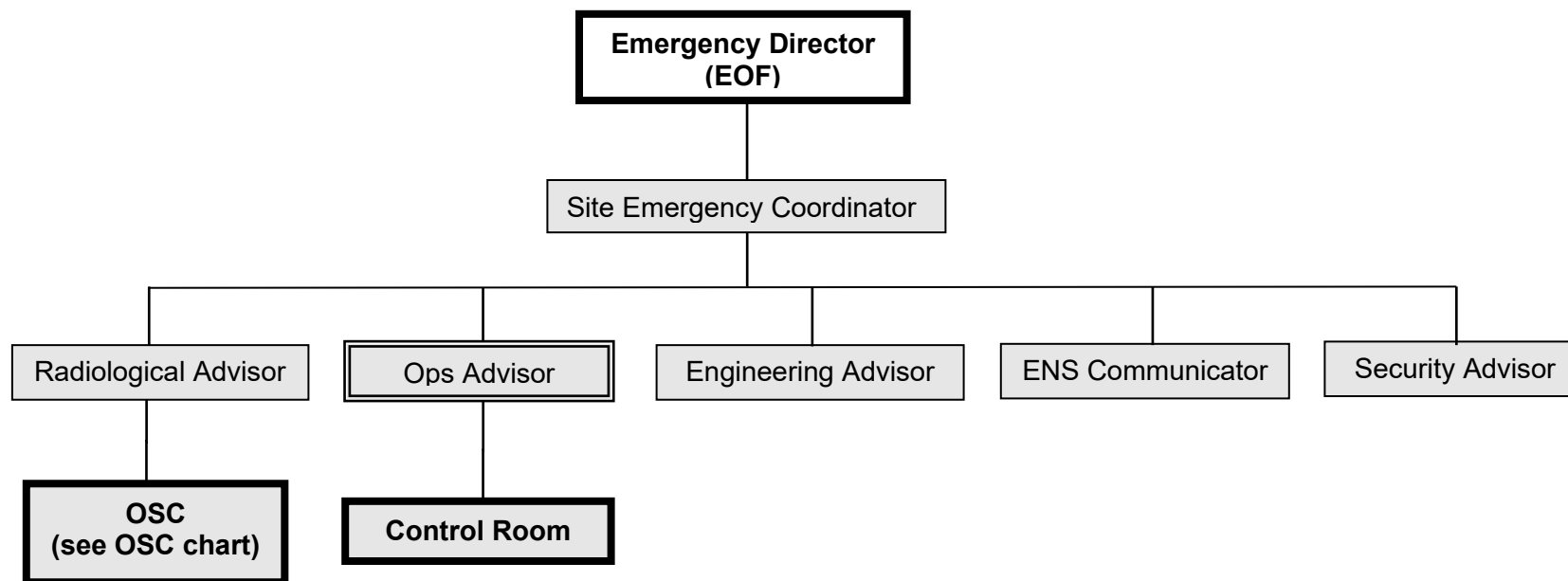
5.20 TABLE 5-2, AUGMENTED ERO MINIMUM STAFFING FOR FACILITY ACTIVATION

Emergency Response Facility	Minimum Staff
TSC	Site Emergency Coordinator Radiological Advisor Engineering Advisor Operations Advisor ENS Communicator Security Advisor
OSC	OSC Director RP Technicians
EOF	Emergency Director EOF Director Radiological Manager Dose Assessor FMT Coordinator Offsite FMT Engineering Liaison Communications Coordinator Advisor to the County Government Relations Coordinator
JIC	None

5.21 FIGURE 5-1, OVERALL COMMAND AND CONTROL STRUCTURE



5.22 FIGURE 5-2, TSC ORGANIZATION



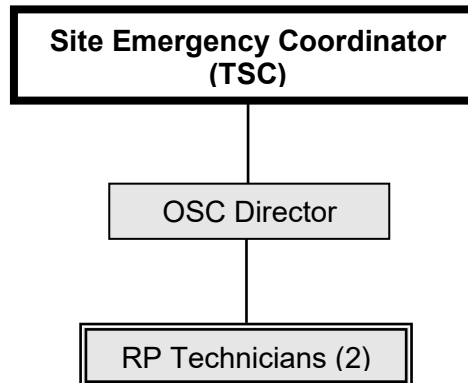
Note:

Shaded boxes indicate minimum staffing for facility activation

Double boxes indicate 60-minute response positions

Other TSC positions are 90-minute responders

5.23 FIGURE 5-3, OSC ORGANIZATION



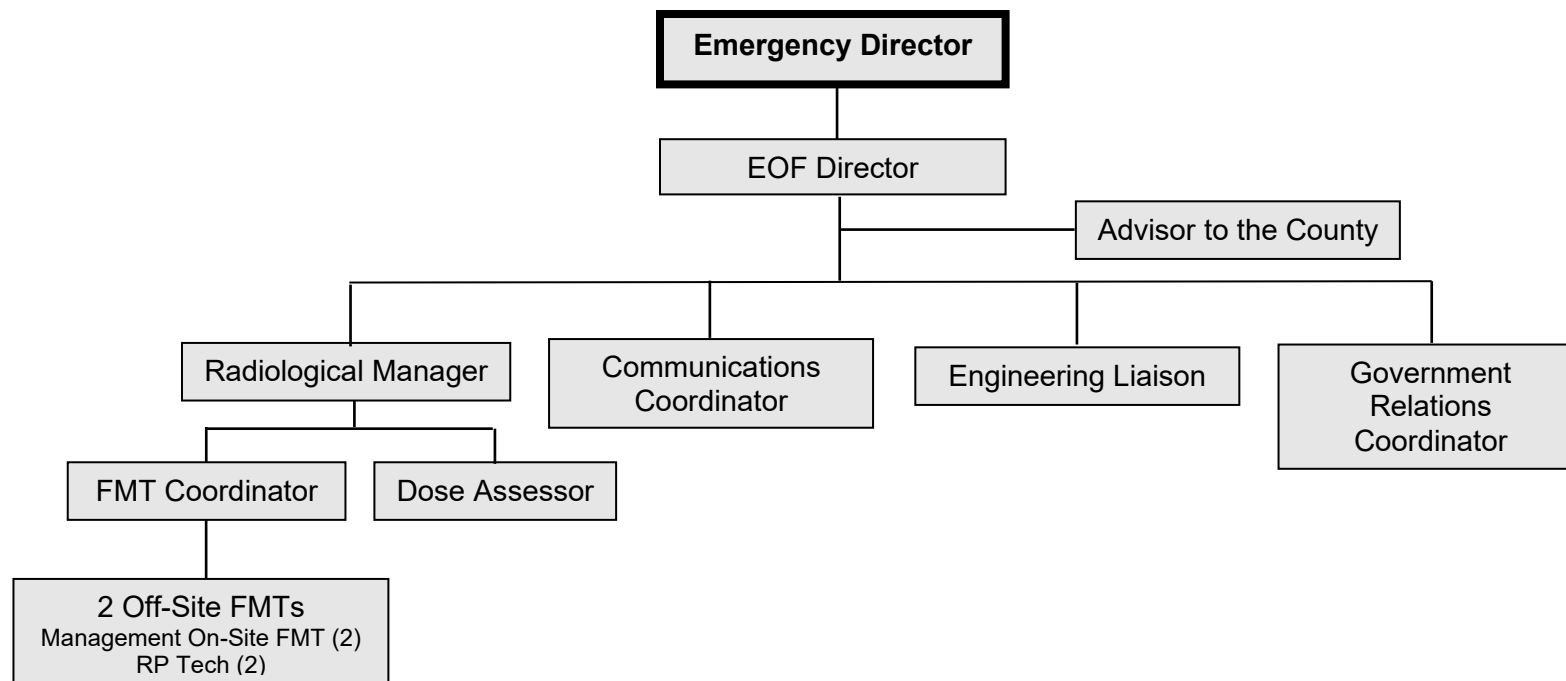
Note:

Shaded boxes indicate minimum staffing for facility activation

Double boxes indicate 60-minute response positions

Other OSC positions are 90-minute responders

5.24 FIGURE 5-4, EOF ORGANIZATION



Note:

Shaded boxes indicate minimum staffing for facility activation

Double boxes indicate 60-minute response positions

Other EOF positions are 90-minute responders

5.25 FIGURE 5-5, JIC ORGANIZATION

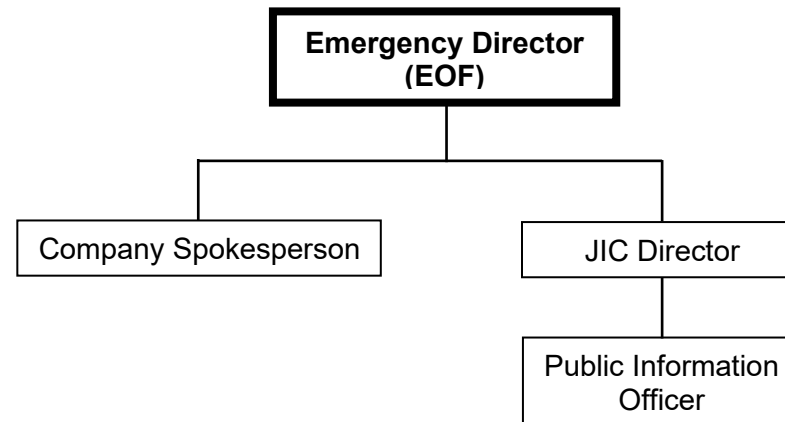


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6. EMERGENCY MEASURES

6.1 ACTIVATION OF THE EMERGENCY RESPONSE ORGANIZATION (ERO)

The four emergency classification levels require a varying degree and scope of emergency response. The Shift Supervisor will immediately initiate actions to limit the consequences of the event and to return the plant to a safe and stable condition. The ERO for an Unusual Event consists of the on-shift personnel. Normally, no further ERO augmentation is required, although several members of the plant management are notified and may choose to come to the plant, depending on the circumstances. The Shift Supervisor may activate all or a portion of the full ERO to limit the consequences of an event prior to an Alert or higher emergency classification level.

6.1.1 ERO Notification

The ERO notification process should be initiated immediately after the emergency declaration. Call-out of personnel is accomplished by pagers or telephone.

Typical driving time for personnel living in the nearby communities to arrive at their designated emergency response facility is between 30 to 60 minutes.

The ERO is grouped into teams for rotating ERO "on-call" duty assignments. All ERO personnel (on-call and off duty) are notified for an event at the Alert or higher emergency classification level, and are expected to respond to their designated facility provided they are fit for duty. Assigning duty team "on-call" positions ensures that the minimum required staffing for emergency response is fit for duty and locally available at all times. Maintaining an all-call process provides defense in depth such that if a minimum staffing position cannot be filled by the person on-call, other qualified personnel will be available to fill the position.

Key ERO position minimum staff requirements are based upon NUREG-0654, Table B-1 as provided in Section 5.

6.1.2 Emergency Response Facility Activation

For the Alert, Site Area Emergency, or General Emergency classification levels, the Technical Support Center (TSC), Operational Support Center (OSC), and Emergency Operations Facility (EOF) will be staffed by the augmented ERO.

The on-shift ERO will be augmented by the minimum staff ERO responders within approximately 90 minutes of event declaration (Alert or higher). Minimum staff ERO is defined as support personnel who will augment the on-shift plant staff in emergency situations as specified in Section 5.

The emergency response facilities will be activated when the augmentation ERO minimum staffing is complete.

Following emergency response facility activation, the transition of emergency responsibilities from the on-shift ERO to the augmented ERO will occur, with the augmented ERO assuming responsibilities as described in Section 5.

Other members of the plant staff may be requested to respond by a secondary call-out once the initial responders identify the personnel resources and expertise required to mitigate the event in progress.

6.1.3 Transition from Normal to Emergency On-Shift Staff

The normal and emergency on-site operating organizations are discussed in Section 5.

6.2 RESPONSE OF ON-SITE PERSONNEL TO EMERGENCY WARNING SIGNALS

Several warning systems are available to warn on-site personnel of an actual or potential emergency. Section 7 of the Emergency Plan describes the physical nature of these warning systems, and this Section describes on-site personnel response.

6.2.1 Site Emergency Signal

The site emergency signal consists of electronic warblers and beacon lights manually initiated from the control consoles or the hot shutdown panels. In an emergency, the signal will be sounded continuously for at least one minute. The signal is tested weekly on a seven day routine schedule. Except in cases of a severe emergency when the Shift Supervisor is not readily available, sounding of the site emergency signal requires Shift Supervisor approval.

All personnel upon receiving initial site access training are issued a site standards handbook which provides site emergency signal response information. All visitors coming onsite receive emergency signal information.

Upon receipt of the emergency signal, on-site personnel are trained to immediately report to pre-designated assembly areas unless otherwise directed by the site public address (PA) system.

Personnel are instructed to remain at the assembly area unless directed to leave by the Site Emergency Coordinator. If an assembly area is untenable, the person in charge in the area may direct personnel to leave, but will inform the Site Emergency Coordinator as soon as practicable.

6.2.2 Fire Signal

In the event the fire alarm is sounded, the Firefighters are dispatched as required. Other personnel are instructed to remain at their work locations and await further instructions. The fire signal is tested weekly on a seven day routine schedule.

6.2.3 Criticality Monitor

The criticality monitor alarms in the fuel handling areas and nearby hot machine shop are horns that are automatically initiated on high radiation level, as measured by the area monitors in the fuel handling building. Upon receipt of this signal, personnel in the area are instructed to immediately leave and report to Access Control.

6.3 STAFFING OF THE CORPORATE EMERGENCY ORGANIZATION

The Corporate Emergency Organization is discussed in Section 5.

The Corporate Emergency Organization can be staffed by the Emergency Director by notifying Corporate Security or Corporate Emergency Planning Department in San Francisco. These positions are available on a 24-hour basis.

The Corporate Emergency Response point-of-contact is promptly notified of any occurrence that would be reported under the provisions of the Emergency Plan. The extent to which corporate resources are staffed is based on staged mobilization depending on the nature of the occurrence.

6.4 ACTIVATION OF THE COUNTY EMERGENCY ORGANIZATION

Activation of appropriate portions of the County emergency organization is accomplished by telephone or radio communication from the plant Control Room to the Sheriff's Watch Commander at the County Sheriff's Office Dispatch Center. Provisions are included for message authentication.

The San Luis Obispo County emergency organization will activate at the Alert, Site Area Emergency, and General Emergency classifications. The County emergency plan provides for activating the EOC and non-utility portion of the EOF under these emergency classification levels. The County emergency plan details activation procedures for County emergency response operations. When the EOC is activated for an emergency classification, plant staff personnel will be available at the County EOC to advise the County on plant equipment and plant radiological status.

Initial and follow-up emergency messages for each emergency classification are delivered by DCPD to the Sheriff's Watch Commander until relieved by the Advisor to the County who relays the messages to County Command in the EOC. To ensure that all necessary information is clearly transmitted, a standard Emergency Notification Form (ENF) is used. This ENF provides for such entries as the classification of the emergency, if a radioactive release is taking place, potentially affected population and areas, and what protective measures may be necessary. Follow-up messages provided to off-site authorities provide a comprehensive description of the incident with a characterization of the radioactivity release and appropriate recommended protective measures.

6.5 ASSESSMENT ACTIONS

In Section 4, a brief description of the basic assessment process is discussed for each of the postulated emergencies that were described. This Section contains a more detailed discussion of the four most important assessment functions namely:

- The proper functioning of SFP cooling systems for emergencies involving possible degradation of the spent fuel heat sink
- The assessment of fuel condition in such a circumstance
- The estimation of the magnitude of a release, and
- The determination of the environmental consequences of a release

6.5.1 Verifying Proper Operation of the Spent Fuel Pool Cooling System

The design basis of the SFP Cooling System is to maintain a water inventory in the SFP sufficient to: keep the spent fuel immersed, support iodine decontamination factor assumptions, and provide for reactivity control.

In the event of a loss of SFP level, the CFH, with the assistance of the operating crew, will enter the Emergency Operating Procedures (EOPs). The EOPs:

- Verify the operation of the SFP Cooling System equipment
- Diagnose the event
- Provide corrective actions to mitigate or alleviate the problem

If the expected action is not obtained or the equipment does not function properly, the EOPs direct alternate, remedial responses. Criteria for upgrading to a General Emergency during a loss of SFP level event are found in the Emergency Action Levels (EAL) and Appendix D.

6.5.2 Assessing Fuel Condition

During the implementation of the EOPs, the CFH is responsible for monitoring the fuel condition. Upon completion of the initial event diagnosis, the CFH will notify the Shift Supervisor of the fuel status. If the fuel condition is threatened, a mitigating procedure will be used to mitigate the problem.

6.5.3 Assessing Release Magnitude

During the initial stage of an off-site release, the CFH will make a preliminary dose assessment calculation of any off-site release to determine the accident classification per Emergency Plan Implementing Procedures. After the Unified Dose Assessment Center (UDAC) is staffed, they will take over these responsibilities and perform more detailed calculations. These calculations use various radiation monitors, ventilation flow rates, wind speed, direction, stability classification, and plant parameters to project an estimate of the magnitude, direction, and size of the radioactive plume. The results of these calculations will be included in PARs to County personnel. Refer to Appendix G for additional discussion regarding PARs at DCPD.

6.6 OVERVIEW OF THE ASSESSMENT AND MONITORING PROGRAM

The following is a general discussion of the monitoring program. If sufficient personnel are immediately available, or as they become available, several monitoring teams can be formed and several of the steps should be performed simultaneously.

6.6.1 Assessment of Environmental Consequences of Airborne Releases

In the first few hours following a release of airborne radioactive materials to the environment, a monitoring program will be established to assess the extent of the release and to provide guidance for appropriate protective measures. The general program and measurement techniques for environmental monitoring following a suspected airborne release are discussed in this Section.

The principal early concerns are thyroid exposure due to inhalation of radioactive iodines and/or whole body exposure from immersion in a cloud of radioactive noble gases. Criteria for taking protective actions such as sheltering and evacuation are expressed in terms of these two variables, and early off-site government agency efforts will be directed toward their assessment. Following this, efforts by off-site authorities will normally be directed toward the evaluation of possible long-term exposures from ground deposition and various food-chain pathways.

6.6.2 Off-Site Dose Calculation

The scope of off-site dose calculation is to establish methodologies for performing early phase dose assessments used for evaluating the need to evacuate, shelter, or implement other appropriate protective actions for individuals located within the DCPD EPZ. Additionally, off-site dose projections are used to support event classification.

In the event of an accident at DCPD involving an actual or a potential release of radioactive materials, projected off-site doses to members of the public will be determined.

6.6.2.1 Emergency Assessment and Response System /Meteorological Information Display Assessment System (MIDAS) Methodology

EARS/MIDAS is the primary dose assessment methodology and is intended to provide users with greater accuracy for projecting offsite dose. EARS/MIDAS is capable of performing dose assessment using multiple, simultaneous releases including those resulting from a multi-unit accident.

EARS/MIDAS is based on EPA Regulatory Guide 400-R-92-001, "EPA Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," which serves as the source document for implementing PAG to protect the members of the public and emergency workers in the event of a radiological accident at DCPD. EARS/MIDAS calculates centerline and off-centerline dose using a variable trajectory Gaussian plume segment model. The plume is modeled using multiple meteorological inputs to account for the complex terrain surrounding DCPD.

EARS/MIDAS is typically run in automatic mode using automated data entry for key inputs such as meteorological and radiological data.

6.6.2.2 Alternate Methodologies

If the normal EARS/MIDAS workstations are not operational, back-up manual entry laptops with EARS/MIDAS installed are available for use by the on-shift organization as well as by the augmented ERO.

In the unlikely event EARS/MIDAS becomes completely unavailable on both the normal workstations and on the back-up manual entry laptops, an alternate dose assessment model, QuickDose, is available for use by the augmented ERO.

QuickDose is installed on the LAN and on the back-up manual entry laptops, making it available in the same locations as EARS/MIDAS.

QuickDose calculates centerline dose based on a straight line Gaussian plume calculation, using Regulatory Guide 1.145 methodology, displayed in a distance table. The plume and dry deposition exposure duration is 96 hours at all distances.

6.6.3 Estimate the Magnitude of the Release and Release Rate

In most cases, a release to the environment will be monitored by permanently installed, real time monitoring instruments at the effluent release points and at various locations in the environment. These instruments will be promptly checked to estimate the release rate and magnitude of the release. In addition, these monitor readings will be correlated with

analysis data of the source terms of these releases. In those cases where the unavailability of monitoring instruments does not make the above possible, (due to monitors being off-scale or inoperable) design bases accident summaries and on-site field monitoring team data will be used to make the most accurate initial estimate of the magnitude of the release.

6.6.4 Determine If On-Site Personnel Assembly Areas are Affected

In the event of a major release, protection of on-site personnel is a high priority consideration. On-site monitoring is conducted to assure personnel safety in the assembly areas by performing dose rate and air sample surveys with the following objectives:

- Determine whether the external dose rate has reached an action level for evacuation.
- Determine whether iodine sampling is necessary.

The determination of airborne radioiodine concentration takes several minutes, due to the time required to obtain an air sample. In the early stages of assessment, it may not be desirable to collect air samples if it has been determined radioiodine is not a problem. Since noble gases will always accompany iodine in a release, and in general will be released in substantially greater quantities, it is possible to set an upper limit on the possible airborne iodine based upon a measurement of the external dose rate.

In general, air samples are immediately collected if the general area gamma dose rate exceeds 3 mR/hr, and can be deferred for dose rates below this. This criterion is based upon predicted noble gas/iodine release rates for major accidents. Air samplers used to detect and measure radioiodine concentrations in the DCPD vicinity have a measuring range between 1E^{-10} and 1E^{-6} microcuries per cubic centimeter ($\mu\text{Ci/cc}$).

Results of these surveys are transmitted to the Radiological Advisor who may recommend evacuation or other on-site protective measures as warranted.

6.6.5 Perform General Monitoring On-Site

Once it has been determined personnel in on-site assembly areas are not endangered, the monitoring program should be directed toward a general assessment of radiological conditions on-site by making appropriate downwind surveys.

Because the location of a plume is often difficult to determine, it is necessary for monitoring teams to "fan out" circumferentially from the measured downwind direction. However, on-site terrain makes it difficult to reach all areas. The preferred monitoring locations would be along the circumference of a circle of approximately 0.5 mile radius from the reactor.

Where it is not possible to reach downwind monitoring locations at the 0.5 mile distance, it will be necessary to move in either closer to the SFP, or farther away. If a ground level release is the most likely, then moving in closer is preferred. If the release is elevated, then moving farther away is preferred.

To reduce confusion during the early stages of on-site data collection, predetermined monitoring locations near the 0.5 mile site boundary have been marked by easily identifiable poles. These are suggested locations for obtaining initial measurements.

The data gathered from on-site monitoring will be forwarded by satellite telephone, cellular telephone, or radio to the Control Room, TSC, or EOF where that data can be evaluated by responsible assessment personnel. These personnel will then recommend protective actions, as appropriate, to the individual with Command and Control: Shift Supervisor or Emergency Director. The individual with Command and Control will make the decision to notify appropriate Company and County personnel regarding release status and make appropriate protective action recommendations.

6.6.6 Establish Off-Site Monitoring

If any of the assessment actions verify that a significant release has occurred, Field Monitoring Teams will be immediately dispatched to perform off-site monitoring. The teams will perform external dose measurements, obtain air samples, and can perform ground and vegetation surveys if required. This monitoring will continue throughout the duration of the accident so that the need for protective measures can be quickly assessed.

6.6.6.1 Identification of Monitoring Locations

Because it is extremely important to clearly and unambiguously identify locations where environmental measurements are made, a systematic approach has been developed to identify monitoring locations that are used throughout the Emergency Plan, showing the site and surrounding areas, respectively.

1) Emergency Monitoring Locations

Suggested emergency monitoring locations have been established for each sector. These are easily identified locations in the environment to which teams should travel to obtain their initial samples and are chosen to produce data from representative environmental locations. By identifying these locations ahead of time, there is assurance that teams will obtain the maximum information during the early stages with minimum logistical difficulty. Although the Radiological Manager or the Field Monitoring Team may choose to sample at alternative locations, it must be emphasized that any such "nonstandard" locations must be carefully identified.

Where fixed instruments are located in the environment, the "emergency monitoring location" usually coincides with the location of the fixed instrument.

2) Real Time Monitoring and Environmental Sampling Locations

There is an extensive network of real time monitors, TLDs, and air samplers surrounding the plant. The real time monitors will be automatically interrogated throughout the course of the accident and the environmental assessment. In some circumstances, it may be desirable to have the TLDs from the TLD stations collected and have the data analyzed. Field Monitoring Teams are directed, however, to not collect these TLDs if the EOF Radiological Manager determines that it is necessary to measure the integrated dose over the duration of the emergency where continued releases are a possibility.

3) Dairies

Because the milk pathway is often the limiting pathway, when an actual release has occurred, if a milk dairy is in the area, milk samples will be analyzed as part of a long-term program.

6.6.6.2 Environmental Measurements

The Field Monitoring Teams have a standard series of samples and measurements that they are prepared to make. These samples and the major uses to which the various data can be put are discussed below.

1) External dose rate and count rate three (3) feet above ground.

Measured external dose rates may be used in comparison of Effective Dose Equivalent (EDE) for verification of dose projection models.

2) Ground Surveys

Count rate measurements made close to the ground using a shielded probe can provide an indication of the magnitude of ground contamination.

3) Air Samples

Provide airborne radioiodine and particulate data if the plume is present and may be used for estimating internal exposure using dose conversion factors.

4) Vegetation Samples

Provide information on vegetation contamination for evaluating food chain doses for ingestion pathway monitoring.

5) Soil Samples

Provide information on ground contamination which is used to estimate food chain doses for ingestion pathway monitoring.

6) Liquid Samples

Can be used to estimate ingestion doses for the long-term program.

7) Smear Surveys

Indicate need for decontamination measures. Smear samples may also be analyzed by a lab to determine isotopic content of ground deposition.

6.6.6.3 Assessment of Off-Site Field Monitoring Data

Environmental monitoring data serves as part of the basis for determining what protective actions are required to protect the public. The group in the UDAC has the function to assess this data and recommend protective actions to the County Emergency Services Director. This group is composed of DCP, County, State, and Federal personnel. Details on the mechanisms by which this group functions are as follows:

- 1) Field Monitoring Teams will meet at a predetermined location to obtain emergency sampling kits, radios, etc., and will be dispatched to standard monitoring sites in affected areas. Samples will be collected and analysis made as discussed earlier in this Section.
- 2) The locally obtained survey data will be communicated by satellite telephone, cellular telephone, or radio to the CR or TSC initially or, once established, to the UDAC at the EOF using the County Brown radio network as the primary communications mode with cellular telephones and satellite telephones available as a secondary backup. Results from samples requiring more detailed laboratory analysis will be forwarded to UDAC from the various laboratories using telecommunication links.
- 3) UDAC personnel will interpret this data and, based on this assessment, make recommendations to the decision-making body. The primary method for handling this data will be through use of EARS/MIDAS with backup methods as necessary to provide reliability.

6.6.7 Backup Off-Site Dose Assessment Calculation Methods

Backup methods for assessing radiological doses due to an airborne release provide redundancy to the automated real-time system normally employed as described in Section 6.6.2.2.

6.7 ON-SITE PROTECTIVE ACTIONS

6.7.1 Alerting of On-Site Personnel

If on-site protective actions are required, on-site personnel are alerted that an emergency condition exists by the sounding of the site emergency signal and a public address announcement. Visitors either have been briefed on the meaning of the plant emergency signals or are escorted by individuals knowledgeable on actions to be taken upon activation of the signals. This applies to visitors and contractors outside and within the plant Protected Area. This signal provides an immediate alert for all on-site personnel.

Supplementary alerting mechanisms for limited areas include the fire alarm and criticality monitor signals. A physical description of these alarm signals is included in Section 7 of the Emergency Plan.

On-site tests have been performed to verify the response time for on-site personnel when the site emergency signal is sounded. These tests have shown assembly and accountability of employees can be expected in approximately 30 minutes.

Agricultural workers on the bench land will be alerted by Security personnel per procedure.

6.7.2 On-Site Personnel Accountability

Several methods for personnel accountability are employed at DCP. Each of these is discussed below.

6.7.2.1 Plant Personnel

The accountability procedures for plant personnel are intended to provide rapid assessment of who is on-site at any given time and where they are located. Several means are employed for personnel accountability, including control of identification badges, supervisory control, and written accountability logs.

As a prelude to the following discussion, it should be noted that plant personnel are provided with automobile passes enabling them to pass the Avila Gate entrance to the site on a 24-hour basis.

1) Control of Identification Badges

Each person requiring long-term site access for their employment is issued a Protected Area identification badge for personal identification. The Protected Area identification badge is required for unescorted access into the Protected Area. Personnel visiting the site are provided visitor identification badges that are activated for the visiting period. Visitor badges provide an easily identifiable visual indication when expired. All personnel with authorized site access can be uniquely identified as a visitor or individually using their Protected Area identification badge. Personnel issued Protected Area identification badges are required to maintain control over their badges.

2) Supervisory Accountability

In general, it is the responsibility of supervisors to know which of their personnel are on-site and at their work location. Personnel report to their designated work headquarters and inform their supervisors of their presence. The supervisors are then responsible for knowing the general whereabouts of their personnel during the remainder of the work period.

3) Computerized Security System

A computerized record is maintained of personnel who enter or leave the Radiological Control Area (RCA), the Power Block, and the Protected Area. The computerized security system can be used to determine personnel accountability inside these areas.

Personnel entering the RCA must obtain written authorization in the form of a Radiation Work Permit (RWP).

A log of all visitors to the Protected Area is maintained by Security.

6.7.2.2 Emergency Assembly and Accountability Process

Assembly: At the sounding of the site emergency signal, all non-essential site personnel report to an assembly area outside the Protected Area and await further instructions. All personnel essential for emergency response and safe operation of the plant (ERO member, Plant Operations, Security, or Medical) will assemble at designated assembly areas or Emergency Response Facilities.

Accountability: At the sounding of the site emergency signal all individuals remaining within the Protected Area are accounted for and the names of missing individuals are determined

within 30 minutes. Once established, accountability is maintained throughout the course of the event. Should unaccounted for personnel be determined missing, search and rescue operations are initiated. Accountability is coordinated by the Diablo Canyon Watch Commander and results forwarded to the Site Emergency Coordinator.

6.7.2.3 Visitor Assembly and Accountability

The following assembly process is employed for visitors at DCP. A visitor, as used in this Section, refers to anyone who is not a member of the plant staff or is not employed with their normal work location at the site. This includes persons from outside the Company as well as Company personnel who are not assigned to the plant.

Prior to being allowed escorted entry into the Protected Area, visitors are required to sign the Visitor Log at the security building when they arrive.

In general, visitors will have business with one or more plant personnel and their accountability while in the Protected Area will be the responsibility of their escort. During plant start-up, refueling outages, or other special conditions, certain visitors may work for extended periods in the plant. In some cases, visitors may require unescorted access privileges while in the plant. Where these personnel are assigned to established work areas, instructed and badged as plant personnel, they may be treated as members of the plant staff for purposes of personnel accountability.

Each visitor is escorted when in a RCA unless instructed in the basic fundamentals of the Company's radiation protection program, including: identification of emergency and evacuation signals and action to be taken if they are sounded, identification of possible radiation hazards locations, and use of applicable protection and monitoring devices.

Visitors are assigned to an assembly area outside of the Protected Area. Accountability is accomplished by checking that each person listed on the Visitor Log has exited the Protected Area. Visitors with unescorted access are accounted for in the same manner as plant staff.

6.7.3 Evacuation of On-Site Non-essential Personnel

Evacuation of on-site non-essential personnel is one important protective action considered in emergency situations. Non-essential personnel include visitors and contractor personnel, and any other on-site individuals not having emergency response assignments.

6.7.3.1 Evacuation Criteria

The decision to evacuate non-essential personnel shall be made by the Shift Supervisor until relieved by the Site Emergency Coordinator.

Since non-essential personnel are not emergency workers, they typically would be evacuated in the event of a Site Area Emergency or General Emergency; however, in certain situations it may be desirable to evacuate these individuals at the Alert level.

The Shift Supervisor or Site Emergency Coordinator's decision to evacuate non-essential personnel will be based on the desire to protect the health and safety of these individuals within the constraints of the situation. It is desired to keep non-essential personnel exposures as low as reasonably achievable, and to the extent possible, lower than annual federally established limits for members of the public.

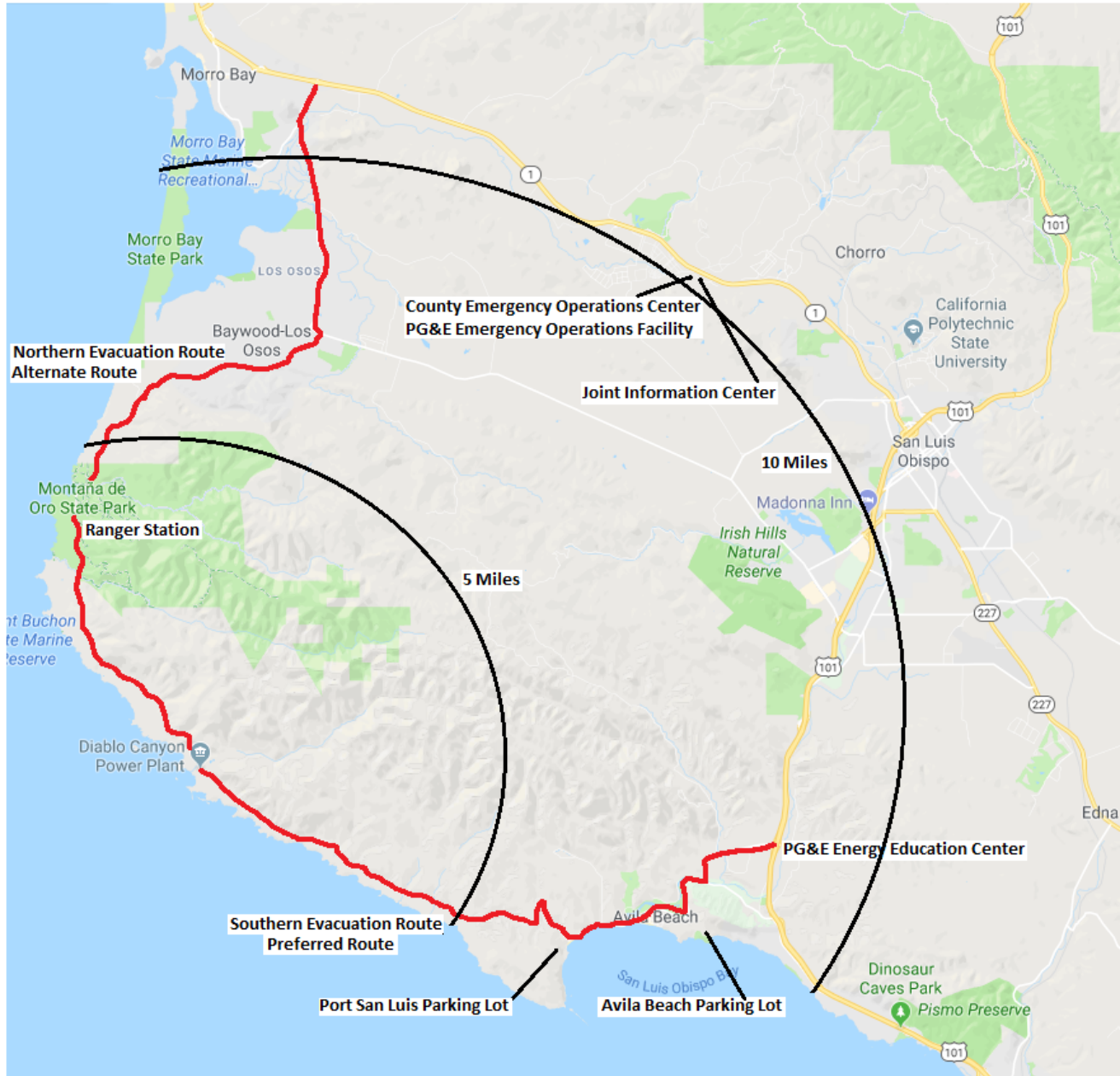
Anytime evacuation is considered it must be weighed against the consequences of not evacuating. In certain cases evacuation may result in higher evacuee exposures than if individuals remain in a shielded or otherwise protected area. In these cases evacuation would be inappropriate.

6.7.3.2 Evacuation Route Considerations

Two routes are available for evacuation from the site. The preferred route is south along the access road to Avila Gate. If conditions prevent the use of the southern route, the evacuation can take a northern route through Montana de Oro State Park. The southern route is preferred because the road is better. The northerly route would only be used in the event of northern wind with a large-scale radiological release or if the southern route is impassable or unsafe.

Alternate off-site assembly areas are available for each route. For the southern route, evacuees can meet at the PG&E Energy Education Center, the frontage road along U.S. 101 north of the Energy Education Center, the Port San Luis Parking Lot, or the parking lot at Avila Beach. For the northern route, evacuees can meet at the Ranger Station in the Montana de Oro State Park. Preferred locations would be determined by selecting a direction away from the wind direction of movement. If it is a precautionary evacuation, locations nearer the site would be suitable; otherwise the more distant locations would be preferred. The decision on which route and rendezvous point to be used shall be made by the Shift Supervisor or Site Emergency Coordinator. Evacuation routes are illustrated below.

6.7.3.3 Evacuation Routes for On-Site



6.7.3.4 Evacuation Procedure

Following the alerting and accounting of on-site personnel, if evacuation is required, the following general steps would occur:

- 1) The Shift Supervisor or Site Emergency Coordinator will authorize the evacuation and determine which route and off-site assembly areas shall be used. This information will be transmitted to the Evacuation Coordinator, appointed by the Shift Supervisor or Site Emergency Coordinator.
- 2) The Communications Advisor will notify the Sheriff's Department or the Advisor to the County (coordinates with County Command) of the evacuation, specifying the evacuation route, the assembly areas, the approximate number of cars and individuals being evacuated, pertinent radiological information, and any other information useful in the evacuation.
- 3) The Evacuation Coordinator is responsible for conducting the evacuation in a safe and orderly fashion. This includes clearing the evacuation route (owner controlled area), personnel accountability of evacuees off-site, assuring transportation traffic control measures, and appointing at least one Radiological Monitor and an Evacuation Leader for each major assembly area.
- 4) The Evacuation Coordinator is responsible for delivery of the evacuation kits from their storage location to the off-site assembly area. Additional supplies are available on-site in the FMT kit storage areas.
- 5) A RP Technician will leave with each group of evacuees, to monitor doses as the evacuation proceeds.
- 6) At the off-site assembly area the RP Technician will be responsible for evacuee dosimetry and contamination control. Typical duties would include the establishment of contamination control areas; surveys of personnel, autos, and other items; decontamination as required; collection and reading of dosimeters; collection of personnel dosimetry devices; and necessary record keeping. Surveys, decontamination techniques, release levels, etc., shall be in accordance with applicable radiation control procedures contained in the plant manual.
- 7) If evacuated non-essential personnel arriving at the off-site assembly areas are contaminated, actions will be taken to decontaminate the evacuees and to prevent the spread of contamination. Equipment and supplies, along with generalized instructions, necessary to perform these actions are contained in the two decontamination showers located at the PG&E Energy Education Center. The showers are stocked with soap, shampoo, towels, clothing, and other decontamination supplies.
- 8) The Evacuation Team Leader is responsible for communicating status reports to the Evacuation Coordinator, maintaining accountability of personnel in attendance, and monitoring all other activities at the off-site assembly area when in use.

6.7.4 Use of On-Site Protective Equipment and Supplies

Certain protective measures may be used to reduce the exposure to emergency workers.

6.7.4.1 Respiratory Protective Equipment

The quantities and types of respiratory protective equipment available for an emergency are discussed in Section 7. Respirators for routine plant use are also available for emergency use. Before an emergency worker may use a respirator, prerequisite requirements for respirator training, fitting and medical surveillance must be satisfied. If all respirator program requirements are not satisfied, no credit should be taken for the respirator when estimating exposure reduction prior to exposure (i.e., respirator Protection Factor = 1). It is the responsibility of the Radiological Advisor or Radiological Manager to determine when respiratory protective equipment use is appropriate, and to select the correct equipment for the expected radiological conditions. The use of respirators should consider maintaining TEDE ALARA for the individual worker; respirators should not be used exclusively for reducing radioiodine or lens of the eye exposure.

6.7.4.2 Protective Clothing

Protective clothing is maintained on-site for routine use and is available in sufficient quantities for use during emergencies. Protective clothing provides minor protection against penetrating external radiation sources, but is intended to keep contamination off the clothes and skin of individuals and to control the spread of contamination. Protective clothing should be worn when entering known or potentially contaminated areas and should be removed upon exiting.

6.7.4.3 Thyroid Blocking Agent

Stable KI tablets are stockpiled and maintained at various on and off-site locations for distribution to emergency workers for emergencies involving significant releases of radioiodine. KI protects an individual's thyroid from airborne radioiodines by blocking the thyroid with stable iodine prior to or during exposure. Since it is a Food and Drug Administration approved drug, the Site Emergency Coordinator or the Emergency Director, with advice from the Radiological Advisor or the Radiological Manager, shall determine when the use of KI would be appropriate.

6.7.4.4 Emergency Dosimetry

An ample supply of dosimetry, both self-reading and various types of thermoluminescent dosimeters (TLDs) are available at the RCA Access Control point, ready for immediate issue to emergency workers. Supplemental emergency dosimetry is stored in kits at various on and off-site locations. The purpose of the kits is for issuing dosimetry quickly to emergency workers that:

- are not RCA qualified, or
- need high range self-reading dosimetry, or
- cannot easily gain access to normal dosimetry storage areas

Processing of TLDs is done by an offsite vendor.

6.7.5 On-Site Contamination Control Measures

DCPP's contamination control program consists of radiation control standards that specify measures to minimize the potential for personnel contamination and the spread of contamination. These standards specify criteria for surveys, the establishment of

contamination control areas and acceptable surface contamination levels. In the event of an emergency, these same criteria would be used to determine which additional areas of the site would require access control measures. Likewise, these criteria would be used to determine when areas and equipment could be returned to normal use.

To assure on-site personnel do not receive excessive exposure from the ingestion pathways, drinking water and food supplies that have been within the boundary of an RCA, should not be consumed.

Equipment and supplies necessary to establish contamination control areas, and for the decontamination of equipment, areas, or personnel are routinely stored in the Auxiliary Building. Additional supplies are stored at the Learning Services Building and various off-site locations. Decontamination supplies are at the PG&E Energy Education Center.

6.8 OFF-SITE PROTECTIVE ACTIONS

6.8.1 Alerting Off-Site Personnel

Off-site emergency support personnel are alerted by telephone or radio of emergency events and situations as discussed earlier in this Section.

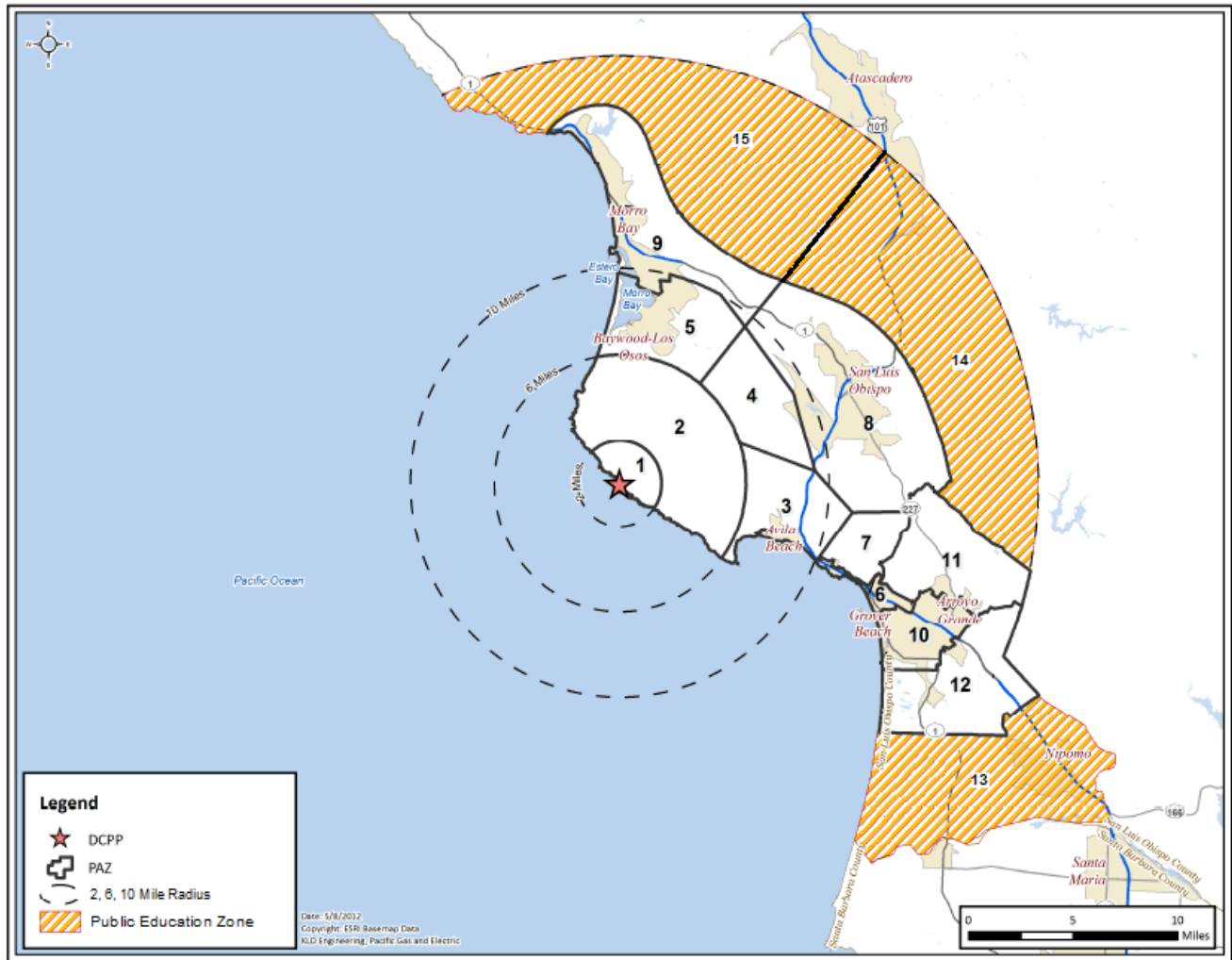
Alerting the general public is the responsibility of local governmental authorities. Specifically, it is the responsibility of the SLO County Emergency Organization which is headed by the County Administrator in the role of County Emergency Services Director under the advisory direction of the County Board of Supervisors.

The lead agency for implementing the public alerting process is the SLO County Sheriff's office.

The Early Warning System is supplemented by special provisions for certain segments of the public as described in the SLO County/Cities Nuclear Power Plant Emergency Response Plan. Provisions are included in the plan for the Sheriff's office to promptly warn all persons in the Emergency Planning Zone upon the determination that general protective actions are necessary. For events of lesser significance, the timing, extent, and method of an emergency public warning (prior to the issuance of a normal media release) would be at the discretion of the County Emergency Organization.

6.8.2 Protective Actions for the General Public

The responsibility and authority for ordering protective actions for members of the public rests with the State and local emergency organizations. The DCPPEP EPZ, PAZs and Public Education Zones (PEZs) are illustrated in the Figure below.



Protective Action Zones (PAZs)

1	2 - mile radius	7	Indian Knob/Price Canyon
2	6 - mile radius	8	San Luis Obispo Area
3	Avila/San Luis Bay/See Canyon/Squire Canyon	9	Morro Bay/Cayucos
4	Perfumo Canyon/Los Osos Valley	10	Five Cities, Southern Portion
5	Baywood/Los Osos	11	Orcutt Road, Lopez Drive, Route 227
6	Pismo Beach/Shell Beach	12	Nipomo North of Willow Road

Public Education Zones (PEZs)

13	Nipomo
14	Cuesta Pass/Santa Margarita
15	Route 41/Cypress Mountain Dr.

6.8.2.1 Public Protective Actions

A range of public PARs is available for the plume exposure EPZ. This range of public PARs is discussed in detail in Appendix G. Consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of KI, as appropriate.

DCCP develops an initial PAR when a General Emergency is declared. DCCP notification of the offsite organizations of the initial PAR is coincident with notification of the General Emergency.

The Shift Supervisor or Emergency Director should recommend protective actions based on the following criteria:

1) Criteria Based Upon Nature of the Emergency

When plant conditions warrant (i.e., a General Emergency has been declared) a recommendation to take immediate actions, such as sheltering or evacuation may be made by DCCP. PADs will be made by a joint assessment group as described in the SLO County/Cities Nuclear Power Plant Emergency Response Plan.

Evacuation of some or all of the persons within PAZs 1 and 2 and the ocean to 5 nautical miles may be recommended for any General Emergency situation regardless of whether or not any radioactive materials have been released from the plant. In situations of a controlled short term release, sheltering all persons within appropriate PAZs may be recommended.

2) Criteria Based Upon Public Exposure

Insofar as possible, evacuation of members of the general public should be carried out to prevent persons from receiving doses in excess of those listed in the table below.

Protective Action Guidelines for the Early Phase of a Nuclear Incident (Reference EPA 400-R-92-001)		
Protective Action	PAG (Projected Dose)	Comments
Evacuation (or sheltering)	1-5 rem ^b	Evacuation (or, for some situations, sheltering ^a) should normally be initiated at 1 rem. Further guidance is provided in Section 2.3.1 of EPA 400
Administration of Stable Iodine	5-25 rem ^c	Requires approval of State medical officials.
^a Sheltering may be the preferred protective action when it will provide protection equal to or greater than evacuation, based on consideration of factors such as source term characteristics, and temporal or other site-specific conditions (see Section 2.3.1 of EPA 400). ^b The sum of the effective dose equivalent resulting from exposure to external sources and the committed effective dose equivalent incurred from all significant inhalation pathways during the early phase. Committed dose equivalents to the thyroid and to the skin may be 5 and 50 times larger, respectively. ^c Committed dose equivalent to the thyroid from radioiodine.		

6.8.2.2 Public Evacuation

Responsibility for ordering protective actions by the public is legally the ultimate responsibility of local government. PG&E will act in an advisory capacity, giving technical assessments of the conditions at the plant and the probabilities for a potential off-site release as well as other pertinent information. This information, along with PG&E's recommended protective actions, will be assessed by responsible County officials in determining appropriate actions to be taken.

1) Evacuation Routes

Evacuation routes are dependent on the meteorological conditions at the time of the accident. The meteorological conditions at the DCPD site are very strongly influenced by the local topography. The Irish Hills which run approximately northwest-southeast redirect most onshore wind flows in these directions. The diurnal nature of the California coastal meteorology also has a strong influence by causing very frequent weak northerly and easterly offshore drainage winds during the night and early morning hours.

Because of the unusual meteorological characteristics of the DCPD site, four predominant wind conditions will be used in discussing evacuation routes and procedures taken by outside agencies. These conditions are as follows:

- a) Northwest winds: These are predominantly daytime winds which occur during fair weather and frequently are very strong.
- b) Southeast winds: These winds generally are associated with storm conditions and early morning drainage flow. They increase in frequency during the wet winter months.
- c) Offshore northeast winds: These are predominantly night or early morning winds that are usually weak. Occasional strong offshore winds occur between winter storms where inland high pressure systems dominate the weather.
- d) Onshore southwest winds: These are the least prevalent winds at Diablo Canyon, occurring less than 5 percent of the time. Onshore winds are highly localized and seldom persist for more than an hour or two.

2) Evacuation Procedures

Evacuation of members of the general public is the responsibility of the County Emergency Organization, working in conjunction with the State Office of Emergency Services, and will be carried out in accordance with their prearranged plans. See the SLO County/Cities Nuclear Power Plant Emergency Response Plan for descriptive text and maps describing evacuation routes, evacuation areas, relocation centers and shelter areas. The general steps to be followed in the event an evacuation is required are as follows:

- a) Based upon plant conditions, on-site and off-site measurements, and meteorological data, the Sheriff's Department will be instructed by the County Emergency Services Director to take protective actions which may include selected or full evacuation. The area to be evacuated, the evacuation routes, and

shelter locations will also be agreed upon by the County Emergency Organization Command Group. The Site Emergency Coordinator or Advisor to the County after EOF activation, will keep the County informed of pertinent information regarding the Company's evaluation of existing conditions.

- b) The Sheriff's Department, assisted by other response agencies, is to carry out the evacuation in accordance with established Standard Operating Procedures.
 - c) Re-entry into the evacuated areas is to be prevented until it is determined that radiological conditions will permit unrestricted access.
- 3) Evacuation Time Estimates (ETE)

Studies conducted by traffic engineering and planning specialists provide information on various evacuation scenarios that could take place as a result of evacuation of the Emergency Planning Zone. The estimated time to evacuate the EPZ under varying conditions, the estimated peak population and evacuation time estimates by region are included in Appendix E. The ETE results were used to inform DCPD protective action recommendations described in Appendix G.

The scenario assumptions, development and conditions leading to the evacuation time estimates have been made available to State and County officials for use in their preparation of emergency response planning documents.

Protective actions to be ordered by County authorities are summarized in the SLO County/Cities Nuclear Power Plant Emergency Response Plan. PG&E cooperates with County and State officials to ensure the County Plan reflects appropriate guidelines on how the evacuation time estimates will ultimately be used to determine the protective actions to be taken off-site.

6.8.3 Off-Site Contamination Control Measures

The responsibility for ordering and conducting off-site contamination control actions rests with the SLO County Emergency Organization. However, PG&E is prepared to work with SLO County and other participating governmental agencies to formulate and implement an appropriate program, if required.

6.8.4 Emergency Personnel Exposure

During an emergency, circumstances may dictate personnel receive exposures in excess of the 10 CFR 20 limits. Some examples of the circumstances would be lifesaving actions or other assessment or corrective actions that would serve to mitigate the consequences of the emergency.

During an emergency and prior to arrival of the Emergency Director, the Shift Supervisor and Site Emergency Coordinator can authorize emergency exposure in excess of 10 CFR 20 limits. These emergency exposure limits are described in EPA 400. The Emergency Director assumes this responsibility at the EOF upon command and control turnover. Emergency workers may receive doses as indicated below.

Guidance on Dose Limits for Workers Performing Emergency Services (Reference EPA 400-R-92-001)		
Dose Limit ^a (rem)	Activity	Condition
5	all	
10	Protecting valuable property	Lower dose not practicable
25	Lifesaving or protection of large populations	Lower dose not practicable
>25	Lifesaving or protection of large populations	Only on a voluntary basis to persons fully aware of the risks involved (See Tables 2-3 and 2-4 of EPA 400)
^a Sum of external effective dose equivalent and committed effective dose equivalent to non-pregnant adults from exposure and intake during an emergency situation. Workers performing services during emergencies should limit dose to the lens of the eye to three times the listed value and doses to any other organ (including skin and body extremities) to ten times the listed value. These limits apply to all doses from an incident, except those received in unrestricted areas as members of the public during the immediate phase of the incident (see Chapters 3 and 4 of EPA 400).		

6.8.5 Decontamination

A decontamination shower is located near the RCA Access Control area of the Auxiliary Building. Two off-site decontamination showers are located at the Energy Education Center. Supplies include solid waste disposal supplies for contaminated clothing, personnel decontamination supplies, replacement clothing, and other related miscellaneous items.

All radiation protection personnel are trained in decontamination techniques as part of their radiation protection training. Operations personnel receive training in basic decontamination techniques for tools, equipment, and personnel as part of Radiation Worker Training.

6.8.6 Medical Transportation

Arrangements for medical transportation are discussed in Sections 5 and 7.

6.8.7 Medical Treatment

The company maintains a medical support contract and agreements with ambulances throughout its service area. French Hospital in San Luis Obispo, San Luis Ambulance, Cambria Health Care District, and Marian Medical Center in Santa Maria have agreements with the Company for handling accidents involving radioactive contamination. There are also several medical care facilities with public access in the area for the treatment of non-radiological injuries.

The Radiation Emergency Assistance Center/Training Site (REAC/TS) is also available for consultation and response to radiation related injuries. REAC/TS provides this expertise through the Department of Energy for the nuclear industry.

6.8.7.1 Physicians, Ambulances, and Hospitals Serving the Immediate Area around Diablo Canyon

Ambulances	
Name	Remarks
San Luis Ambulance Service	Radiation Exposure Patients
Cambria Health Care District	Radiation Exposure Patients

Hospitals	
Name	Remarks
French Hospital	Radiation Exposure Patients - External Defibrillation Equipped
Marian Hospital	Radiation Exposure Patients

Physicians	
Name	Remarks
Area Medical Care Facilities	Industrial Injury Treatment
Hospitals	Industrial Injury Treatment
REAC/TS	Medical/Radiation Consultant

6.9 CROSS REFERENCE TO NUREG-0654

NUREG-0654	DCPP Emergency Plan	NUREG-0654	DCPP Emergency Plan
A.1.e	6.3	J4	6.7.3
B.2	6.8.2.1	J5	6.7.2
B.6	6.1, 6.1.3, 6.3, 6.4	J.6.a	6.7.4.1
E.2	6.1, 6.1.1, 6.3, 6.4	J.6.b	6.7.4.2
E3	6.4	J.6.c	6.7.4.3
E7	6.4	J7	6.1, 6.5.3, 6.8.1, 6.8.2
F.1.e	6.1, 6.1.1, 6.3, 6.4	J8	6.8.2.23)
H.4	6.1.2, 6.3, 6.4	J.10.a	6.8.2
H.11	6.7.5, 6.8.5	J.10.b	Appendix E
I.2	Error! Reference source not found., 6.6	J.10.c	6.8.1
I.3.a	Error! Reference source not found.	J.10.m	6.8.2.1, Appendix G
I.3.b	6.5.3, 6.6	K.1.a to g	6.8.4
I.4	6.6.2	K.2	6.8.4
I.6	6.6.3	K.3.a and b	6.7.4.4
I.7	6.6.5, 6.6.6	K.5.a and b	6.7.5, 6.8.5, 6.8.7
I.8	6.6.2, 6.6.2.1, 6.6.2.2	K.6.a to c	6.7.5
I.9	6.6.4, 6.6.5, 6.6.6	K.7	6.7.5, 6.8.5, 6.8.7
I.10	6.5.3, 6.6, 6.1, 6.6.2	L.1	6.8.7
J.1.a to d	6.2, 6.7.1	P.7	Appendix A
J2	6.7.3	P.8	6.9
J3	6.7.3.4		

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7. EMERGENCY FACILITIES AND EQUIPMENT

If corrective measures are to be promptly initiated in an emergency situation, it is important required emergency equipment and facilities be readily available. To the maximum extent possible, normal plant equipment and controls will be used to mitigate the consequences of an accident. In some instances, special emergency equipment and facilities have been provided. This section describes this special equipment in conjunction with normal plant equipment that has particular application in an emergency.

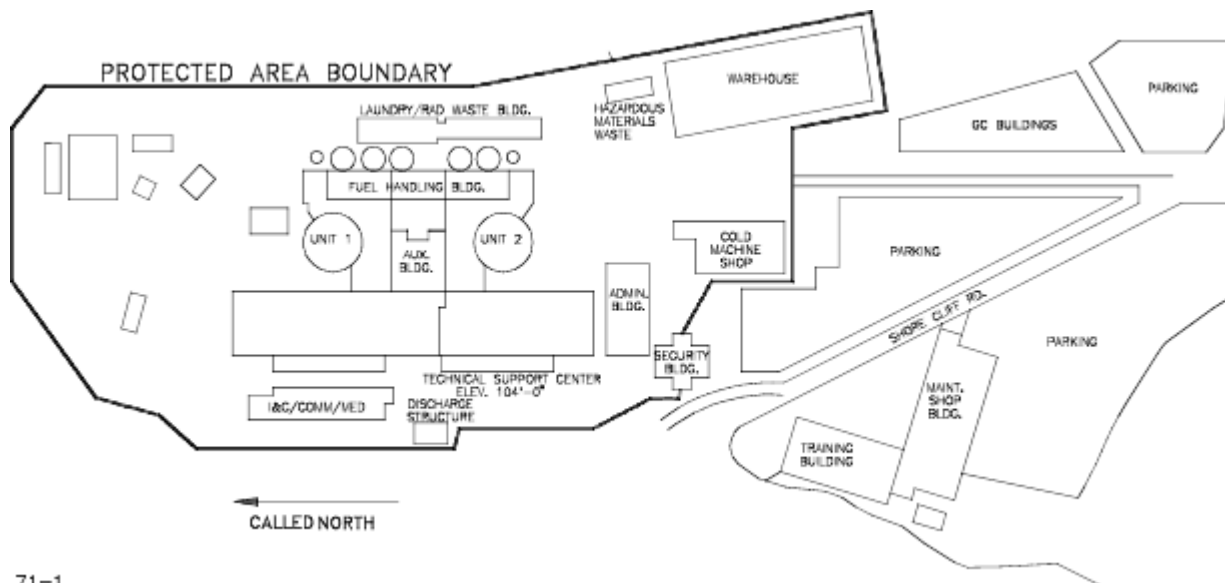
The Emergency Plan provides for a number of on-site and off-site facilities intended for use as accident management centers, and personnel staging and planning areas. These facilities are discussed briefly in the following paragraphs.

7.1 EMERGENCY RESPONSE FACILITIES

7.1.1 Control Room

7.1.1.1 Location and Description

The Control Room is common to Units 1 and 2 and is located at the 140' elevation of the Auxiliary Building as shown below. The Shift Supervisor's office is located adjacent to the Control Room. The Control Room has lavatory and kitchen facilities.



7.1.1.2 Emergency Function

Prior to the time the Technical Support Center (TSC) is activated (and throughout the course of an emergency in which the TSC is not activated) the Control Room will serve as the headquarters for the Site Emergency Coordinator. All on-site activities are directed from this location, and all communication with off-site agencies will originate from the Control Room. The Control Room has the necessary equipment and instruments to perform accident assessment work involving possible or actual radiological releases and fuel barrier damage.

Following activation, overall control of on-site activities will be transferred to the TSC or EOF. The Control Room will then be headquarters of the on-site Operations Coordinator, and the major Control Room activity will be operation of plant equipment to mitigate the consequences of the emergency.

The Control Room also serves as the backup to the TSC should the latter be unavailable.

7.1.1.3 Habitability Objectives

The Control Room is designed to be habitable throughout the course of a design-basis accident, although no credit is taken for the shielding or ventilation features in the design basis accident calculation.

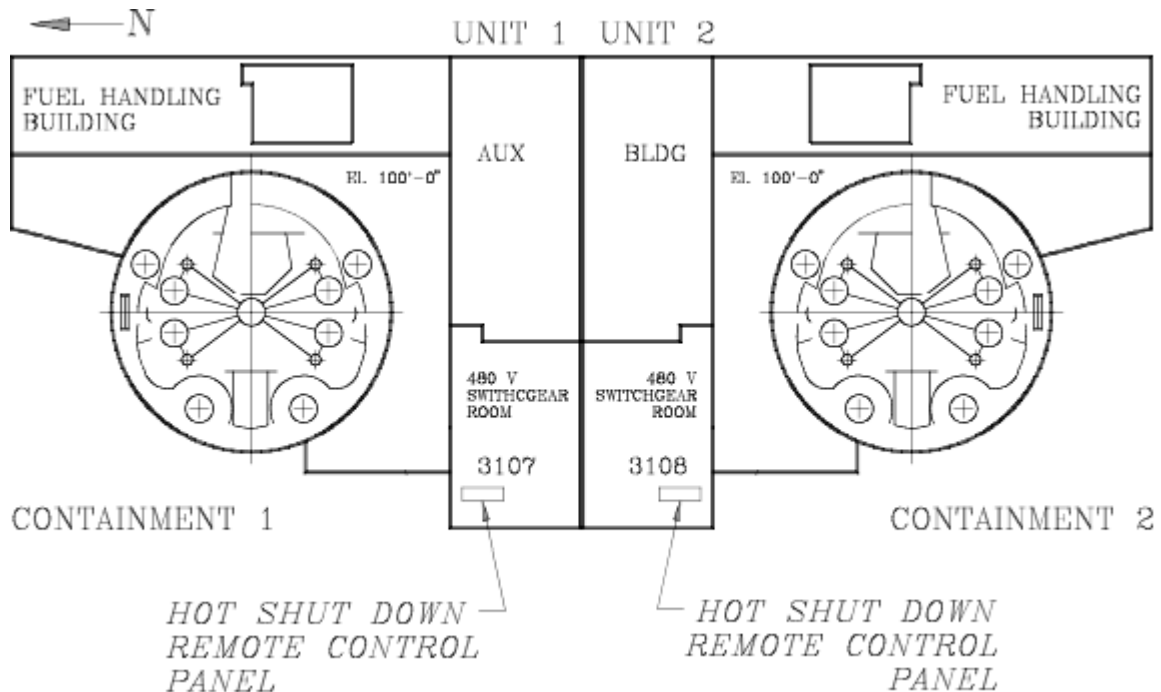
7.1.1.4 Special Equipment

The Control Room is the most completely equipped location in the plant in terms of provisions to monitor the status of plant systems and equipment. The Control Room has complete communication capability; as well as access to meteorological, seismic, and radiological monitoring data.

7.1.2 Hot Shutdown Panel

7.1.2.1 Location and Description

Each unit is provided with a hot shutdown panel located in the Auxiliary Building at the 100' elevation as shown below. Each hot shutdown panel is a single control panel with two sub-panels.



71-2

7.1.2.2 Emergency Function

The hot shutdown panel contains the essential indicator and controls to maintain a unit in safe condition for an extended time period. The hot shutdown panel is primarily intended to be used for a situation in which smoke or toxic gas makes the Control Room temporarily uninhabitable. In such a circumstance, the unit can safely be maintained in the safe condition until the Control Room can be reentered.

Any occurrence requiring the use of the hot shutdown panel would also involve activation of the TSC. Overall emergency response actions, including off-site communications, would be handled from the TSC, where the Site Emergency Coordinator would establish his headquarters.

7.1.2.3 Habitability Objectives

The hot shutdown panels are not intended for use in radiological release type accidents. They are open to the room atmosphere in the "clean" (radiologically) portion of the Auxiliary Building. No special provisions have been made to assure habitability during radiological release emergencies.

7.1.2.4 Special Equipment

Hot Shutdown Panel Instrumentation and Controls are listed below. Each panel has a telephone and an emergency UHF radio for operations frequency.

Auxiliary Saltwater

1. Auxiliary Saltwater Pump control switch
2. Auxiliary Saltwater Pump mode selector switch
3. Auxiliary Saltwater Pump START/STOP/LOCAL status

Component Cooling Water

1. Component Cooling Water Pump control switch
2. Component Cooling Water Pump mode selector switch
3. Component Cooling Water Pump START/STOP/LOCAL status

Makeup Water

1. Condensate Storage Tank level indicator
2. Raw Water Reservoir level indicator

Other

1. Site emergency alarm switch
2. 4kV vital bus voltage indicator

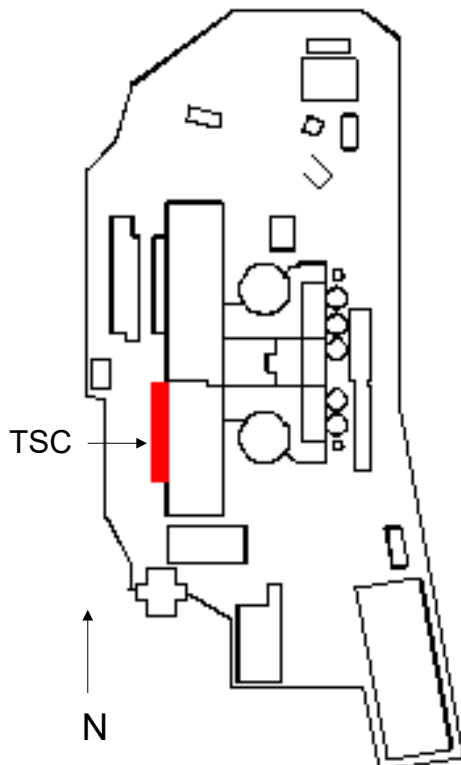
7.1.3 Technical Support Center

7.1.3.1 Location and Description

The purpose of the TSC is to provide a facility separate from but in close proximity to the Control Room. The TSC has the capability to display and transmit plant status to personnel responsible for engineering and management support of SFP operations in the event of an accident. This separate facility is needed to house data gathering equipment and the personnel required to assist in an emergency, primarily to reduce Control Room congestion.

The TSC serves both Units 1 and 2 and consists of six rooms. The TSC is sized to accommodate a minimum of 20 company and 5 NRC personnel. It is located at elevation 104' on the west side of the Unit 2 Turbine Building. It occupies space created as a result of the exterior concrete buttress seismic modification of the turbine building. The thickness of the concrete walls required to enclose the TSC were largely dictated by radiation shielding considerations and the structure is designed to the Hosgri seismic criteria.

The figure below shows the location of the TSC within the plant.



The room layout and description from North to South is:

1) Command Center

Desks, files and conference table provided for plant operations management, maintenance and technical staff personnel.

2) Operations Center

Plant parameter data gathering and display equipment is provided for the use of technical staff in assessing the plant condition. The Emergency Response Facility Data System (ERFDS) is located in this room.

3) Computation Center

Radiological and meteorological data gathering and display equipment and communications equipment is provided for the use of technical staff in assessing radiological conditions on and off-site.

4) Records Management and Reproduction

Plant manuals, emergency plans and procedures, access to microfilm drawings and other records, and certain hard copy drawings are provided.

5) HVAC Room

Heating and ventilation equipment for the TSC is located in this room.

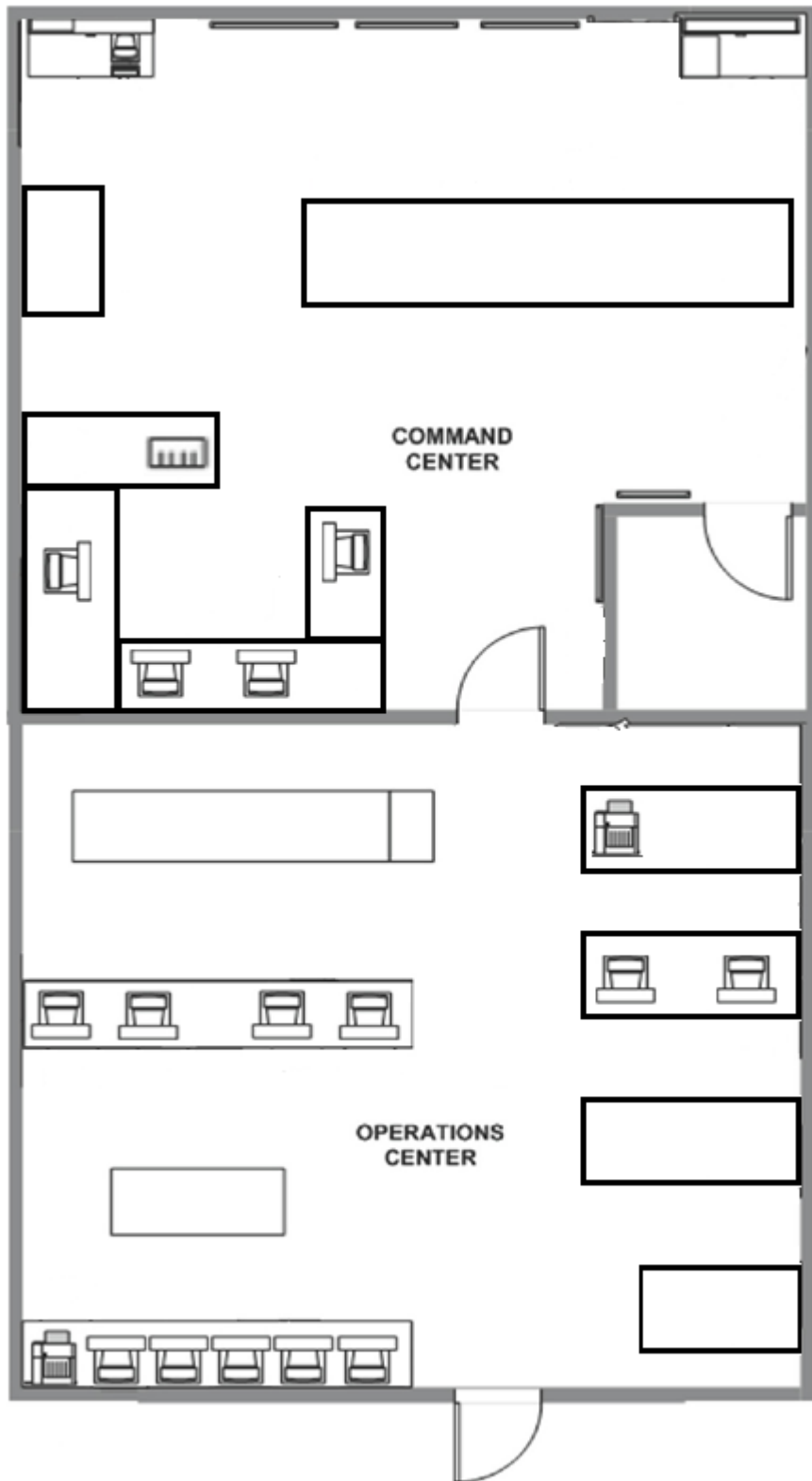
6) Laboratory (Radiological Counting Room)

In a room adjacent to the TSC, radiological laboratory equipment for analysis of samples is provided.

The radiological counting room is intended to be a backup location for this type of work in the event the normal counting room is unavailable.

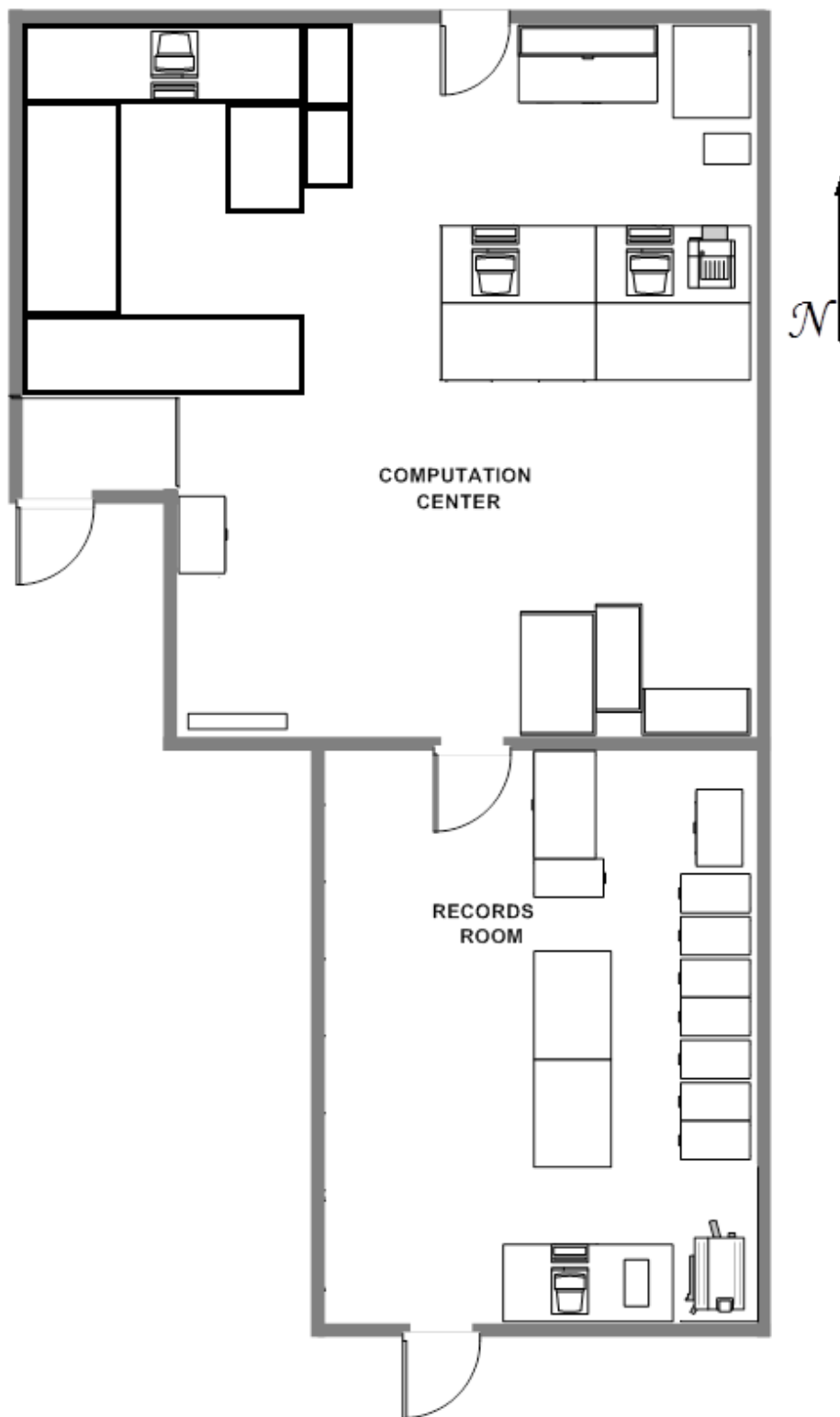
It is equipped with a multi-channel gamma ray spectroscopy system using a high-resolution intrinsic germanium detector.

The following figures show the general floor plan of the TSC.

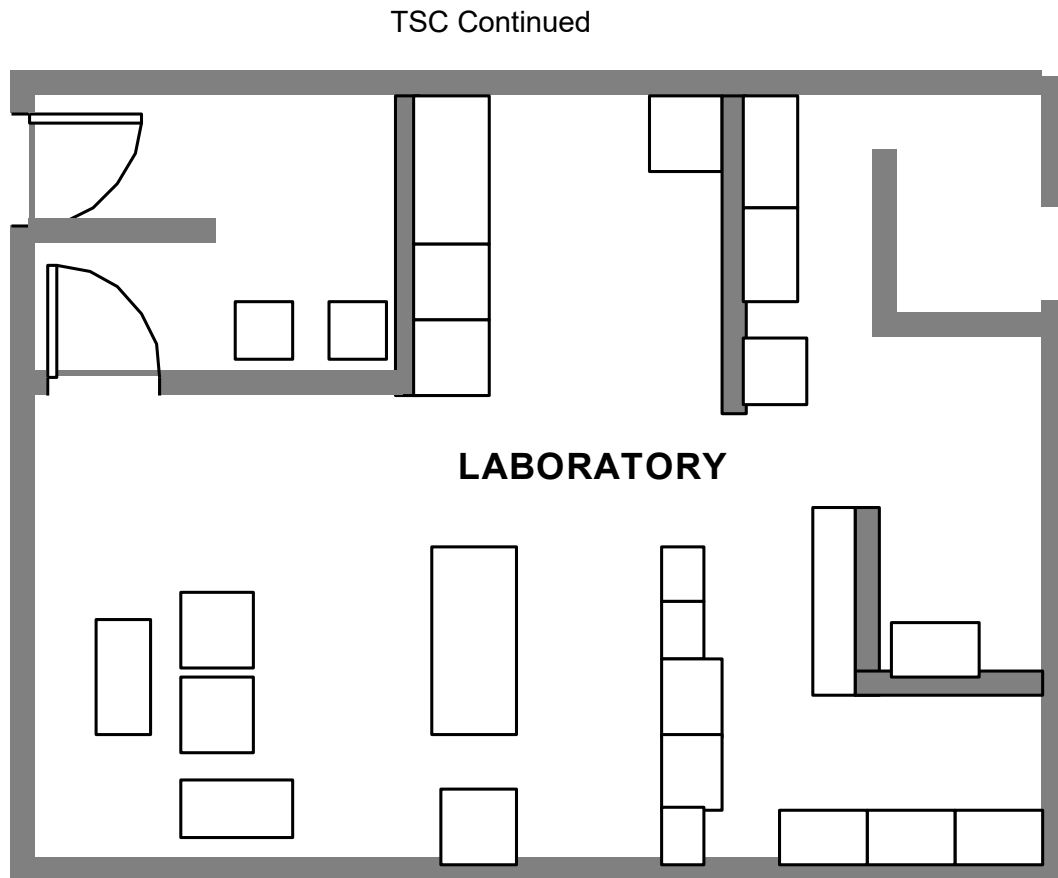


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TSC Continued



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7.1.3.2 Emergency Function

The TSC when activated serves as the headquarters for the Site Emergency Coordinator, Operations Advisor, Radiological Advisor, ENS Communicator, and Engineering Advisor and their staffs throughout an emergency. Provisions have also been made for the establishment of an on-site NRC emergency team co-located in the TSC.

Following activation of the TSC, the overall on-site assessment and recovery programs may be directed from this location. In addition, communications with off-site emergency response locations may be handled through the TSC.

7.1.3.3 Habitability Objectives

The TSC is designed to be habitable throughout the course of a design basis accident, although no credit is taken for the shielding or ventilation features in the design basis accident calculation.

7.1.3.4 Special Equipment

- 1) Communication

The TSC is provided with full radio and telephone communications capability.

2) Radiological Analysis

The TSC contains radiological laboratory equipment. The TSC is also tied into the emergency radiological monitoring network.

3) Plant Process Computer

The TSC is provided with a display terminal and a printer for each unit's Plant Process Computer (PPC). This provides the ability to monitor and print plant parameters acquired by the PPC.

4) Transient Recording System

The Emergency Response Facility Data System (ERFDS) recall functionality is provided by the main plant historian hosted on the DMZ servers. The ERFDS data is available on at least two (2) display computers in the TSC.

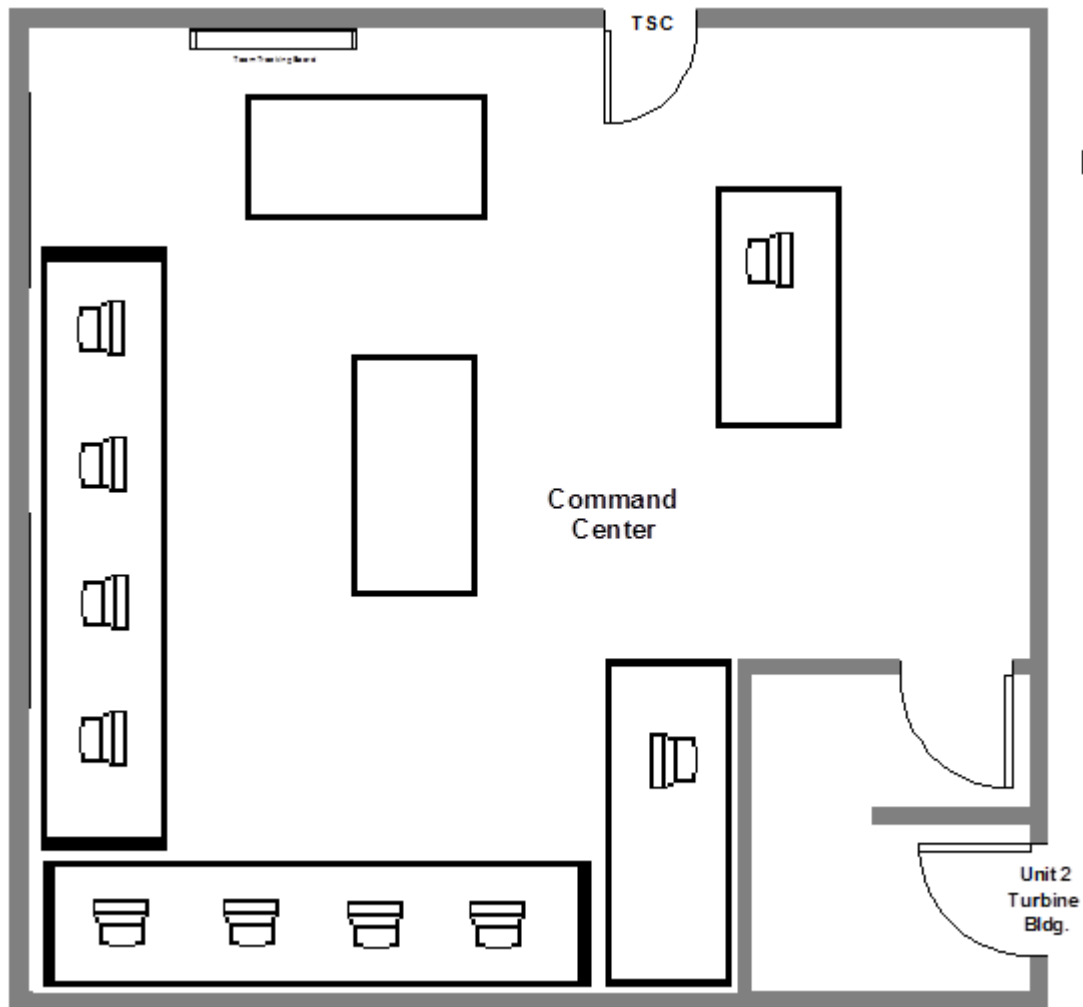
7.1.4 Operational Support Center

7.1.4.1 Location and Description

The OSC provides locations functionally 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 on 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, and/or the firefighters equipment storage area on the 140' elevation. OSC assembly areas serve as team dispatch locations and contain a variety of emergency support equipment immediately available for emergency use. The OSC command center is equipped with a two-way auto ring-down phone line with priority access to other facilities. Alternate backup locations for the OSC command center include:

- Elevation 140' Turbine Building northeast corner
- Administration Building (Room 215)

The general floor plan of the OSC command center is shown below.



7.1.4.2 Emergency Functions

Provides a location for staging and dispatching trained emergency workers for assignment to:

- Emergency maintenance, repair, and damage control.
- Firefighting, search and rescue, and first aid.
- Emergency sampling of plant fluids.

The OSC also functions as locations of selected emergency response equipment and provide facilities for personnel decontamination.

The OSC is intended to eliminate congestion in the Control Room and TSC. This area has a supervisor assigned in the emergency organization.

7.1.4.3 Habitability Objectives

The OSC command and assembly areas are not required to have special provisions for minimizing radiation exposure. Consequently, personnel in these areas may be evacuated under certain emergency situations. If evacuation were necessary, personnel required for emergency response would be relocated to another area. Personnel not immediately essential to the on-site response may be assembled in the Learning Services Building or released.

7.1.4.4 Emergency Equipment and Supplies

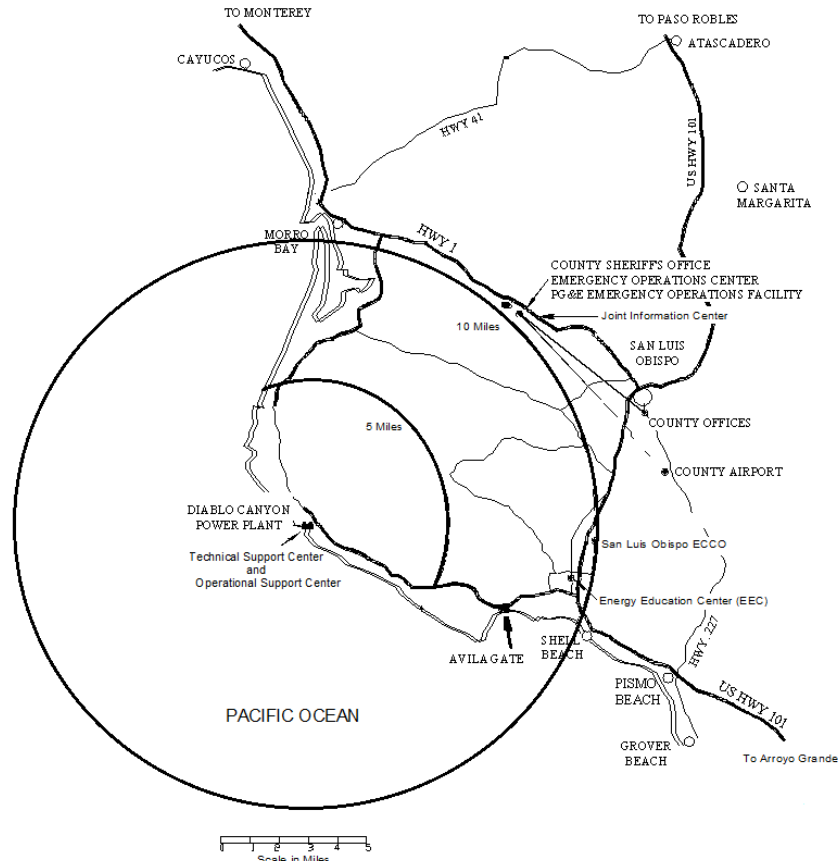
The OSC command center has a two-way auto ring-down phone line with priority access to the TSC and Control Room and has a PBX telephone with emergency facility priority access to commercial telephone circuits. In addition, there is access to portable radio equipment.

The OSC has ample supplies of respiratory protection equipment, protective clothing, monitoring instruments and other emergency response equipment.

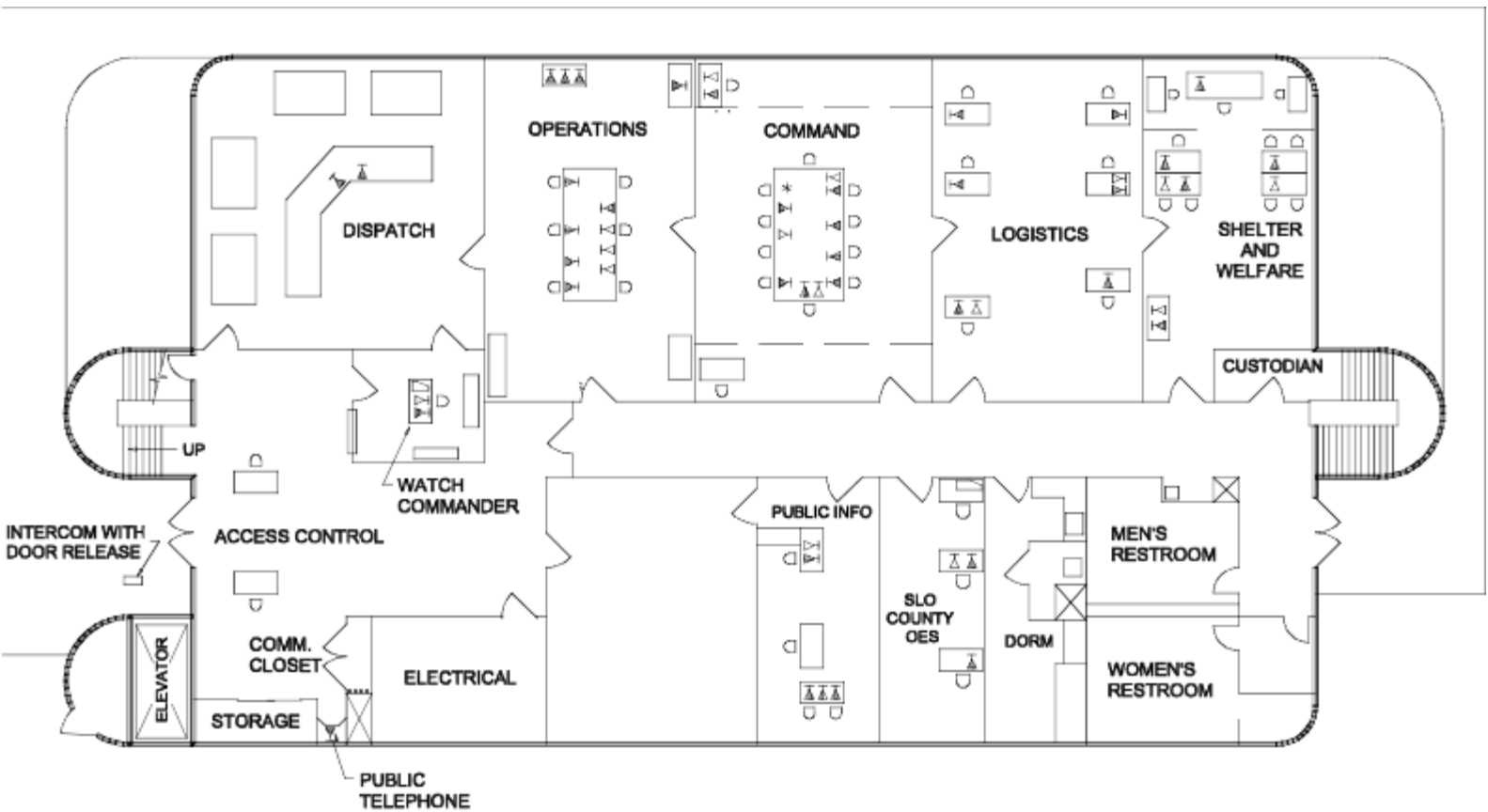
7.1.5 Emergency Operations Facility

7.1.5.1 Location and Description

The EOF and County EOC are located approximately 11 miles northeast of the DCP. See figure below.



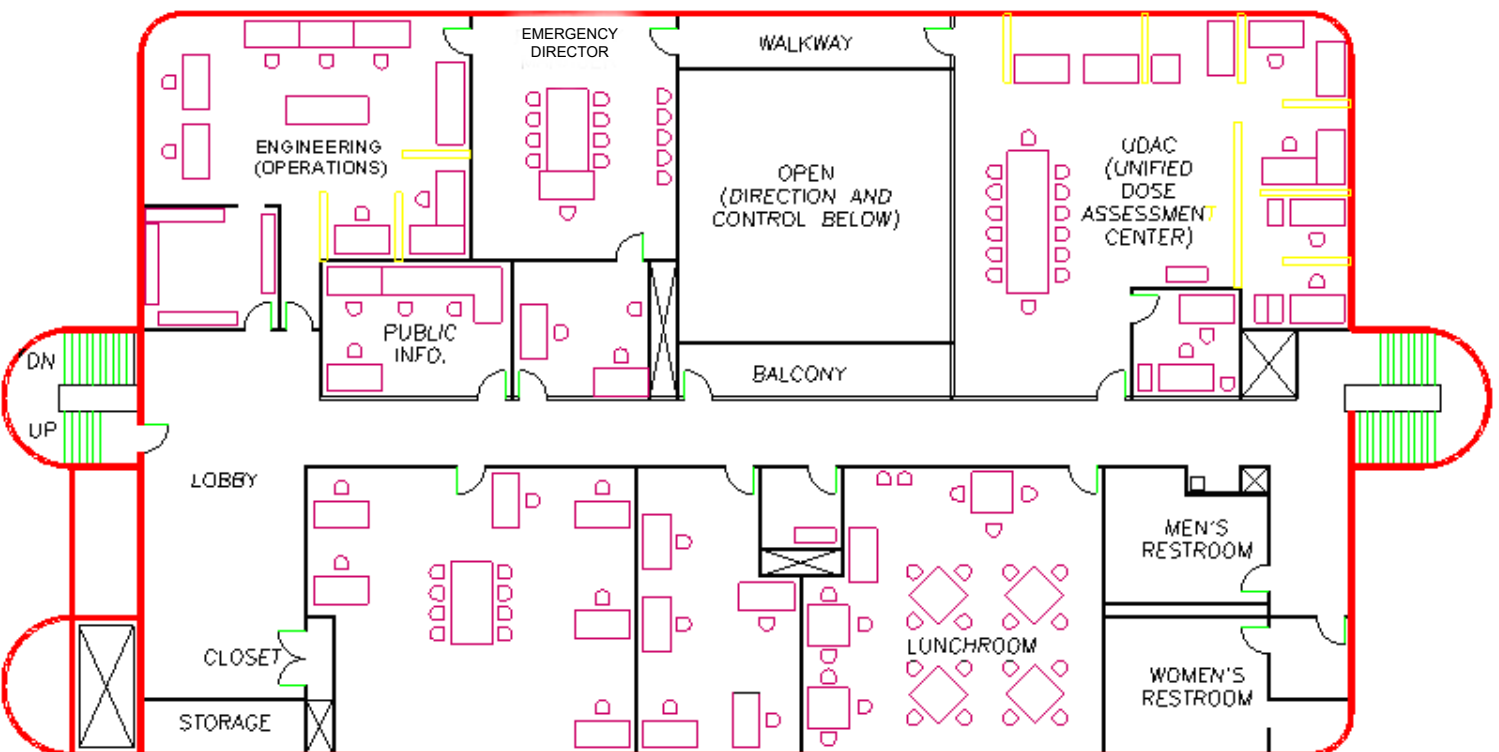
The San Luis Obispo County Sheriff's watch commander and dispatch center occupy this building on a 24-hour basis. The first floor of the building provides space for the County EOC, and the Sheriff's watch commander and dispatch center. See figure below.



FIRST FLOOR OF EOC / EOF BUILDING

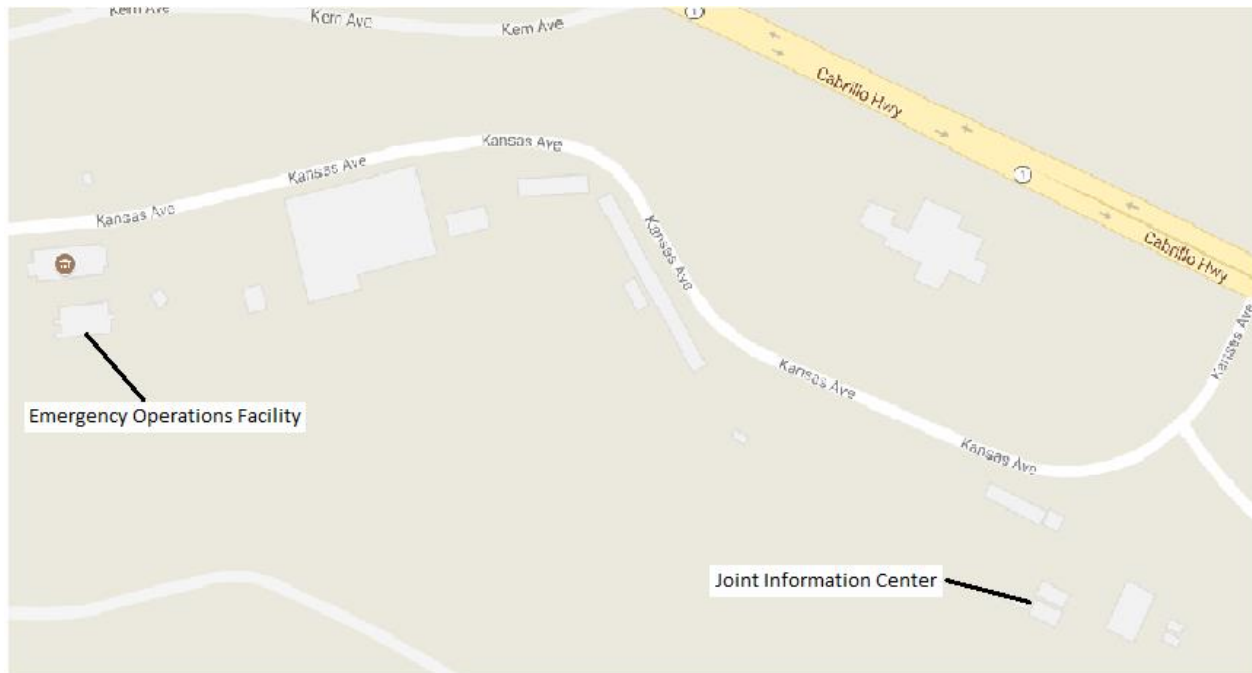
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The second floor houses the EOF, the UDAC and office space for CA OES) NRC, FEMA, and other responding Federal agencies. See figure below.



SECOND FLOOR OF EOC / EOF BUILDING

The JIC off Highway 1 on Kansas Avenue is approximately 1/4 mile from the EOF. Utility and county public information personnel perform various functions from this facility. The JIC has a briefing room that includes office space for public information officers and a phone assistance center. See figure below.



7.1.5.2 Emergency Function

The EOF when activated serves as the headquarters for the Emergency Director, Advisor to the County, and UDAC. The EOF acts as the interface between the Company/County, and the public. The Emergency Director and his staff utilize the EOF as their headquarters to provide overall direction of the recovery effort for Company response personnel for a declared emergency.

7.1.5.3 Habitability Objectives

The distance from the plant to the EOF, the very low frequency of winds in the direction from the site to this location, and the shielding and turbulence produced by the mountainous terrain between the two locations makes special habitability provisions unnecessary.

7.1.5.4 Special Equipment

The EOF is provided with extensive telephone and radio communications capability. Communication systems in the building are redundant and include microwave links to DCP and the General Office.

The EOF is provided with computer monitors that can display plant parameters received by the ERFDS. The ERFDS recall functionality is provided by the Transient Recorder System (TRS). The ERFDS data is available on at least two (2) display computers in the EOF.

The EOF is also a central controlling station for the EARS used for off-site dose assessment.

The EOF/EOC building is protected by a Wet Pipe Fire Sprinkler System.

Management coordination between the TSC, the EOF and EOC is assured by reliable telephone communications. Telephones at key locations in the EOF/EOC are equipped for building or area paging. Backup electrical power is supplied from a 100-kW diesel-fueled emergency generator.

Resource materials available in the EOF include:

- Plant procedures
- Emergency Plan and implementing procedures
- Maps with sectors indicated (10 and 50 miles)
- Air Sampler
- Portable Count Rate and Dose Rate Survey Instruments
- Plant electrical, piping and instrumentation drawings

The EOF is provided with a display terminal and printer for each unit's PPC. This provides the ability to monitor and print plant parameters acquired by the PPC.

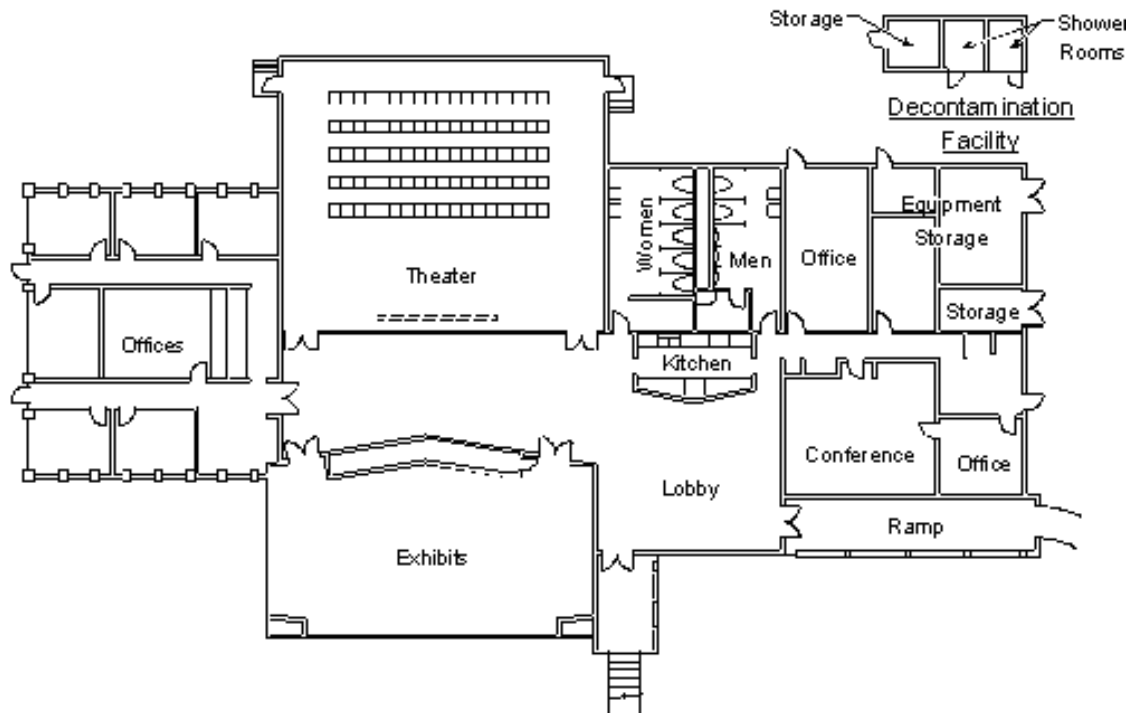
7.1.5.5 PG&E Corporate Interface

The Government Relations Coordinator has direct contact with the Company Incident Commander in the PG&E EOC and the Emergency Director in the EOF. The Government Relations Coordinator is provided with communications from the Company telephone system and WAN links to DCPD.

7.1.6 PG&E Energy Education Center

7.1.6.1 Location and Description

The PG&E Energy Education Center is located 12 road miles from DCPD in an ESE direction. The Energy Education Center is approximately 7,000 square feet. The floor plan of the Energy Education Center and adjacent decontamination shower facility is shown below.



7.1.6.2 Emergency Function

The Energy Education Center is the preferred location to gather on-site personnel in the event of a site evacuation, providing meteorological conditions permit. The Energy Education Center can also be used as a headquarters, staging area, and personnel decontamination center. Finally, the Energy Education Center is the first choice for a backup Emergency Operations Facility.

7.1.6.3 Habitability Objectives

No special provisions have been provided to enhance habitability for radiological emergencies. The Energy Education Center has lavatory and kitchen facilities.

7.1.6.4 Special Equipment

The Energy Education Center is provided with a base station emergency radio as well as PG&E and Public Switched Telephone Network (PSTN) telephones. It also has two decontamination showers and related supplies, including replacement clothing.

7.1.7 San Luis Obispo Service Center

7.1.7.1 Location and Description

The San Luis Obispo Service Center is located in San Luis Obispo approximately 10 miles east of DCP. The Service Center serves as the local headquarters for the Los Padres division of PG&E. There is space for about 15 persons in the adjoining Division Emergency Center. Around the clock access to the San Luis Obispo Service Center is available.

7.1.7.2 Emergency Function

The San Luis Obispo Service Center is a back-up off-site assembly area in the event of a site evacuation. It could also be used as a backup location for the EOF. It also serves as the backup location for activating the EWS.

7.1.7.3 Habitability Objectives

No special provisions have been provided to enhance habitability for radiological emergencies. The San Luis Obispo Service Center has lavatory and limited kitchen facilities.

7.1.7.4 Special Equipment

The San Luis Obispo Service Center is provided with a base station emergency radio as well as PG&E and PSTN telephones.

7.2 COMMUNICATIONS EQUIPMENT

DCP is provided with two categories of telephone networks: "Operations" plant telephone network (OPTN) and "Admin" plant telephone network (APTN). All plant telephones on these company telephone networks (whether Operations or Admin) are capable of communicating with other company telephones, including other plant telephones located at on-site and off-site emergency response facilities. The communications equipment described in this section deals with the OPTN which provides the DCP E-Plan communications capabilities.

7.2.1 Plant Telephone Network

The OPTN is part of the Company owned and operated telecommunications system, which can be used for routine inter-company communications. Any plant telephone on the company telephone network is capable of communicating with other company telephones, including other plant telephones located at on-site and off-site emergency response facilities. The OPTN is designed with a highly redundant and resilient architecture. During an emergency, the OPTN is the primary communication method for voice communications between emergency response facilities. Plant telephones are located at various locations throughout the plant, including the Control Room, Hot Shutdown panels, Security Building, laboratories, shops, Technical Support Center, Operational Support Center, Emergency Operations Facility, Alternate Emergency Response Facilities in San Luis Obispo, and other work and equipment operating areas. In addition, phone jacks are located in the Control Room and at other strategic operating locations throughout the plant. Each phone jack is associated with a telephone number, and when used in conjunction with a portable

telephone unit, can communicate with any other telephone in the power plant as well as the company telephone network.

The OPTN Private Branch Exchange (PBX) consists of redundant and resilient core switching systems and gateways. The equipment is geographically distributed and designed with no single points of failure. The core switching systems located in Power Block Com Room 1 and the Building 102 Communications Room are each capable of automatically handling all call traffic should the other system fail. The EOF and Alternate TSC-OSC are part of the OPTN infrastructure.

External Public Switched Telephone network (PSTN) telephone calls to and from the OPTN are processed as follows: For DCPD and Alternate TSC-OSC phones, the calls are via redundant Telco Session Initiation Protocol (SIP) trunks over two independent route-diversified trunks; and for EOF phones the calls are via redundant Telco ISDN-PRI T1 trunks. In case of the remote possibility of both DCPD SIP trunks to the PSTN failing at the same time, the OPTN can be rerouted to the PG&E central datacenter PSTN SIP trunks. Internal PG&E calls to and from the OPTN to and from sites outside the DCPD area are routed via route-diversified SIP trunks using the resilient PG&E Wide Area Network and are processed by the PG&E private voice network.

The OPTN allows for two-way auto ring-down phone lines with priority access. The ring-down function rings a phone or group of phones when one of the phones goes off-hook. Priority access ensures selected phone lines take priority over other call traffic.

Also, off-premise extensions (i.e., plant telephones physically located off-site) provide unrestricted access to the OPTN. These extensions are at locations throughout San Luis Obispo County.

The OPTN has several built-in conference call features to allow multiple callers to be connected to the same phone call. One such line is set aside for emergency use and is normally initiated following the sounding of the emergency signal or the fire alarm. Numerous personnel who pick up a company phone and dial a special conference call number will be included in the call.

There will be an available telephone line at the ISFSI to report any emergencies. During cask handling and transportation both security and operations personnel are present with plant radio systems. During normal storage conditions security in the vicinity of the ISFSI is equipped with plant radio systems.

7.2.2 Communication Interface with Public Switched Telephone Network (PSTN)

The DCPD Emergency Response Facilities are served by two redundant shared SIP trunks for handling both, the Administrative and Emergency call traffic.

The OPTN has direct dial lines which allow direct access to plant extensions from the PSTN. These trunk lines come in via two separate paths for redundancy. All service from the PSTN to the OPTN is distributed among the two PBX nodes. Separate redundant trunks are provided to the EOF for handling the Administrative and Emergency call traffic. Separate PSTN lines come into the plant for operational use. One line is mounted in the Control Room to call out from the Control Room in an emergency. This number is unlisted to assure it will not be tied up. A second line runs to the site vice president's office, a third line to the Security Supervisor's office, a fourth line is dedicated to the Central Alarm Station (CAS),

and the fifth goes to the Secondary Alarm Station (SAS). These numbers are unlisted to ensure they will not be tied up.

7.2.3 Power Supplies

Power is provided by a battery charger where the charger supplies the load and float current for the batteries. The AC for the chargers for the primary and backup telephone system servers located in the Unit 1 communications room are supplied from redundant sources. The AC for the chargers for the primary and backup telephone system servers located in the Building 102 communications room are supplied from a single source. The battery chargers are load-sharing units. The mountain top repeater for the microwave systems are DC powered, employing AC powered battery chargers with batteries which float on the line. An automatic emergency generator at each repeater site supplies the charger if normal AC power is lost.

7.2.4 Control Room Telephone Communication

Numerous phone lines link the Control Room to the plant PBX nodes for redundancy.

In addition, there are several special provisions including:

- Two-way auto ring-down lines from the Control Room and TSC to the CA OES located in Sacramento, the EOF, and the Sheriff's Department in San Luis Obispo.
- Dedicated lines that go from the Control Room and TSC to NRC Headquarters in Bethesda, Maryland (NRC FTS telephone).
- Two-way auto ring-down phones with priority access from the OSC and the TSC to the Control Room.

7.2.5 Telephone Communications for the Technical Support Center (TSC)

The TSC has numerous phone lines to the plant PBX network. Additional telephone communications for the TSC are provided by a PBX multi-line phone. From this phone, all incoming calls to the plant emergency phone number can be answered and/or transferred to personnel designated for response. The phone can also be used to obtain an outgoing trunk for use by the TSC phones.

The TSC has dedicated lines to the Control Room, OSC, EOF, the San Luis Obispo County Sheriff's Department and the CA OES. The TSC also has a standard unlisted telephone from the NRC FTS telephone system. This telephone provides direct access to an off-site location in the event the Company exchange system is not available.

7.2.6 Operational Support Center Telephone Communications

The OSC has a PBX line and a two-way auto ring-down phone line with priority access to the Control Room and the TSC. In addition, the OSC has access to several telephone extensions installed for routine use.

7.2.7 Telephone Communication at the Emergency Operations Facility (EOF)

The EOF and County EOC are co-located near the San Luis Obispo County Sheriff's Department. Included in the building is the County Sheriff's Dispatch Center, which has a

two-way auto ring-down phone line with priority access to the Control Room and TSC. This phone line can be accessed from each end.

There is an Off Premise Extension, in the EOC Command Center. This extension provides unrestricted access to the power plant, via company owned microwave paths, should the local PSTN be congested.

Communication circuits for the EOF include telephone trunk lines from the DCPD PBX and additional unlisted telephone lines from the PSTN Network. The NRC FTS telephone lines also tie into the EOF.

Communications between the plant and French Hospital, San Luis Obispo, can be channeled through the EOF. Normal communications will be via commercial telephone. Portable radios may also be used for emergency communications between French Hospital the Plant and EOF.

7.2.8 Data Communication System

The data communication system contains many dedicated circuits that are used in collecting and distributing information. The data network is divided into four areas: 1) records management, 2) time-share operation, 3) operational computer, and 4) health physics.

The majority of the data links radiate from the TSC, which has connectivity to the PG&E LAN/WAN for distribution to many locations in the PG&E network including the PG&E General Office in San Francisco and the EOF.

7.2.9 Nuclear Regulatory Commission Communication Lines

The NRC installed a dedicated telephone system for their use at Diablo Canyon Power Plant.

This system, the Federal Telecommunications System (FTS), provides a separate government network for all the essential communications functions anticipated during an emergency. These essential functions are summarized as follows:

- 1) ENS: Initial notification by the licensee, as well as ongoing information on plant systems, status, and parameters. The ENS telephones are located in the TSC, Control Room, and EOF.
- 2) Health Physics Network (HPN): Communication with the licensee on radiological conditions (in-plant and off-site) and meteorological conditions, as well as their assessments of trends and need for protective measures on-site and off-site. The HPN telephones are located in the TSC and EOF.
- 3) Reactor Safety Counterpart Link (RSCL): This is the channel by which the NRC Operations Center supports NRC reactor safety personnel at the site. In addition, this link may be also used for discussion between the Reactor Safety Team Director and licensee plant management at the site. The RSCL telephones are located in the TSC and EOF.
- 4) Protective Measures Counterpart Link (PMCL): This is the channel by which the NRC Operations Center supports NRC protective measures personnel at the site. In

addition, this link may also be used for discussion between the Protective Measures Team Director and licensee plant management at the site. The PMCL telephones are located in the TSC and EOF.

- 5) Management Counterpart Link (MCL): Established for any internal discussions between the Executive Team Director or Executive Team members and the NRC Director of Site Operations or top-level licensee management at the site. The MCL telephone is located in the EOF.
- 6) LAN Access: Established for access to any of the products or services provided on the Operations Center's local area network. This includes technical projections, press releases, status reports, E-Mail, and various computerized analytical tools. The LAN line is located in the EOF.

7.2.10 Satellite Telephones

Satellite telephones are available for use for intercommunications between emergency response facilities, along with communicating to Field Monitoring Teams.

7.2.11 UHF and VHF Radio System

7.2.11.1 General

The plant has several voice radio systems available for emergency response use in the UHF (Ultrahigh Frequency) and the VHF (Very High Frequency) radio-frequency bands. In the shorter range UHF band, the plant has voice channels available for Plant Operations and Security use, so that personnel from each department can simultaneously utilize radio communications to perform their duties without interfering with or being interfered with by each other.

The Plant can also communicate by voice radio on VHF channels assigned for Marine use and VHF Aeronautical channel (122.9 MHz). A channel is also available for use by CAL FIRE/County Fire for firefighting.

7.2.11.2 Plant UHF Radio Systems

The DCCP UHF radio systems can maintain point-to-point communications between the Control Room, the San Luis Obispo Service Center, the PG&E Energy Education Center, the Port San Luis Gate, the San Luis Obispo County Sheriff's Dispatch Center, Technical Support Center, the Emergency Operations Facility, the Security Department, in addition to satellite telephones. Field Monitoring Teams have mobile radios and hand-held radios available for communication to the Emergency Operations Facility using the County Brown radio network.

The plant UHF radio system provides direct radio unit to radio unit usage around the Diablo Canyon site and between emergency response facilities which is independent of the telephone systems. The base station receivers located at the Emergency Operations Center, the PG&E Energy Education Center and San Luis Obispo Service Center are equipped for selective calling. The normally silenced receivers may be selectively keyed by the plant Control Room, TSC, or County EOC. This feature may be cut out on the base station receivers to permit continuous, unrestricted monitoring of all units during emergency situations.

The Communications Room base stations are powered from battery backed DC power supplies which are fed from plant vital AC power. The radio system power supply is independent of all other non-vital 48 VDC fed equipment in the room.

Control consoles for this system are located in the Control Room, Technical Support Center, and Emergency Operations Facility.

Additionally, in-plant antenna arrays on radio systems make portable radio communications possible throughout the plant.

7.2.11.3 VHF Systems

The VHF radio system is the Company's Los Padres District Commercial operating network that covers from King City in the north to Solvang in the south. District Company radio-equipped vehicles within the district are normally dispatched by one of the several base stations in this network. The Control Room, TSC, and EOF are equipped with VHF radio consoles that can also be used for dispatch.

7.2.12 Joint Information Center

Telephone service for the Joint Information Center is provided primarily by the PSTN Company with some service from the PG&E network.

7.2.13 News Services Office San Francisco

Telephone service in the News Services Office in San Francisco is provided primarily by the PSTN Company.

7.3 ON-SITE SIGNALS AND ALARMS

Several signals and alarms are provided to alert plant personnel to a possible emergency situation. These include:

7.3.1 Site Emergency Signal

The site emergency signal is a very loud sound produced by electronic warblers placed at numerous locations throughout the plant. The site emergency signal is the only plant signal that is produced by an electronic warbler. The site emergency signal sound is a rapid rise in pitch followed by a slower drop. The cycle repeats itself as long as the signal is energized.

The site emergency signal is initiated manually by the Control Room personnel. Control switches are provided at the Control Room Consoles and the Hot Shutdown Panels for Units 1 and 2. Once initiated, the signal will continue until it is manually turned off.

Due to high background noise levels, flashing red lights as well as a warbler are included in the containment buildings and in some locations of the turbine and auxiliary buildings.

The response of on-site personnel to the site emergency signal, other signals and alarms is discussed in Section 6 of the Emergency Plan.

7.3.2 Fire Signal

The fire signal is produced by sirens placed at numerous locations throughout the plant. The fire signal is a steady tone for thirty seconds.

The fire signal may be initiated from any PG&E dial telephone in the plant. A three-digit number is dialed, and the caller is routed to the Control Room where the Unit 1 operator can filter the call and verify the need to sound the Fire Signal. If required, the operator actuates the signal. If the operator is delayed from answering, the caller will route to the Emergency Bridge after four rings. The Fire Signal is actuated as soon as the call enters the Bridge and sounds for 30 seconds.

The bridge has multiple ports on the initiation side that will allow multiple callers the ability to report a fire or other emergency. The answer side of the bridge has multiple ports so that Operations, Fire and Medical personnel can listen in to see if they need to respond to the fire/emergency.

7.3.3 Criticality Monitor Signal

The criticality monitors are area monitors over the spent fuel pool and the new fuel storage area. These instruments generate an evacuation signal if radiation levels exceed the setpoint value.

The criticality monitor signal consists of horns mounted so that they are audible throughout the fuel handling building and in the hot shop area as well as flashing red lights which are mounted near the doors to the fuel handling building on the +85', +91', and +115' elevations. Flashing red lights over the doors in the hot shop indicate which fuel handling building has been alarmed. Units 1 and 2 have similar systems.

7.4 OFF-SITE EARLY WARNING SYSTEM

An EWS is installed to provide prompt alerting of the public in the event of a major emergency at DCCP. The EWS, used in conjunction with radio and TV broadcasts, allows instructions, information, and necessary actions to be immediately communicated to the general public.

The EWS is designed to meet the requirements of NUREG-0654/FEMA-REP-1 and employs guidelines set forth in FEMA REP-10, "Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants."

The EWS design objective specified in Appendix 3 of NUREG-0654 is to provide an alert signal within 15 minutes. This signal is initiated in conjunction with broadcasts providing notification and informational or instructional messages to the population on an area-wide basis throughout the NRC minimum ten-mile radius EPZ. The initial alerting system is designed to assure direct coverage of essentially 100 percent of the population within five miles of the plant site. The SLO County/Cities Nuclear Power Plant Emergency Response Plan provides arrangements to assure 100 percent coverage of the population within the NRC designated plume exposure EPZ.

7.4.1 Outdoor Warning

The portion of the EWS providing initial outdoor alerting for the public to turn on their radios consists primarily of a siren system. Alerting provisions for groups that require special contact arrangements and for craft-at-sea are included in the SLO County/Cities Nuclear Power Plant Emergency Response Plan.

The approach taken in designing the siren system is based on the criteria set forth in documents noted above and on substantial practical field experience by the manufacturer. Because of the many factors that can greatly alter sound propagation from a warning device toward a potential listener, the design criteria set forth in the documents identified above are conservative in theoretical terms.

The system employs several siren sizes to attain the desired coverage. Choice of smaller sirens is often dictated by terrain or sparsely populated or isolated areas.

The number of sirens employed in the system was determined by choosing the siren providing the desired radius of coverage deemed necessary to achieve an adequate dissonant alerting signal level.

7.4.2 Indoor Warning

Large groups of people may be gathered together inside structures. Such structures may preclude detection of the warning provided by the outdoor warning system or may present particular response problems. The Emergency Alert System (EAS) is the primary means of providing indoor warning to residents of the DCPD Emergency Planning Zone.

San Luis Obispo County also has approximately 100 tone alert monitor receivers in schools, hospitals, special care facilities, and other institutions to alert them with special instructions. No tone alert monitor receivers are distributed to residential members of the public. Control consoles for activation of these receivers are located in the Sheriff's Dispatch Center in the EOC/EOF Building.

A pager is assigned to an on-call county emergency responder. The pager is activated from the Sheriff's Dispatch Center or via any telephone system. The county uses cellular technology to contact additional county emergency response personnel including governmental officials and members of the Environmental Health field monitoring teams.

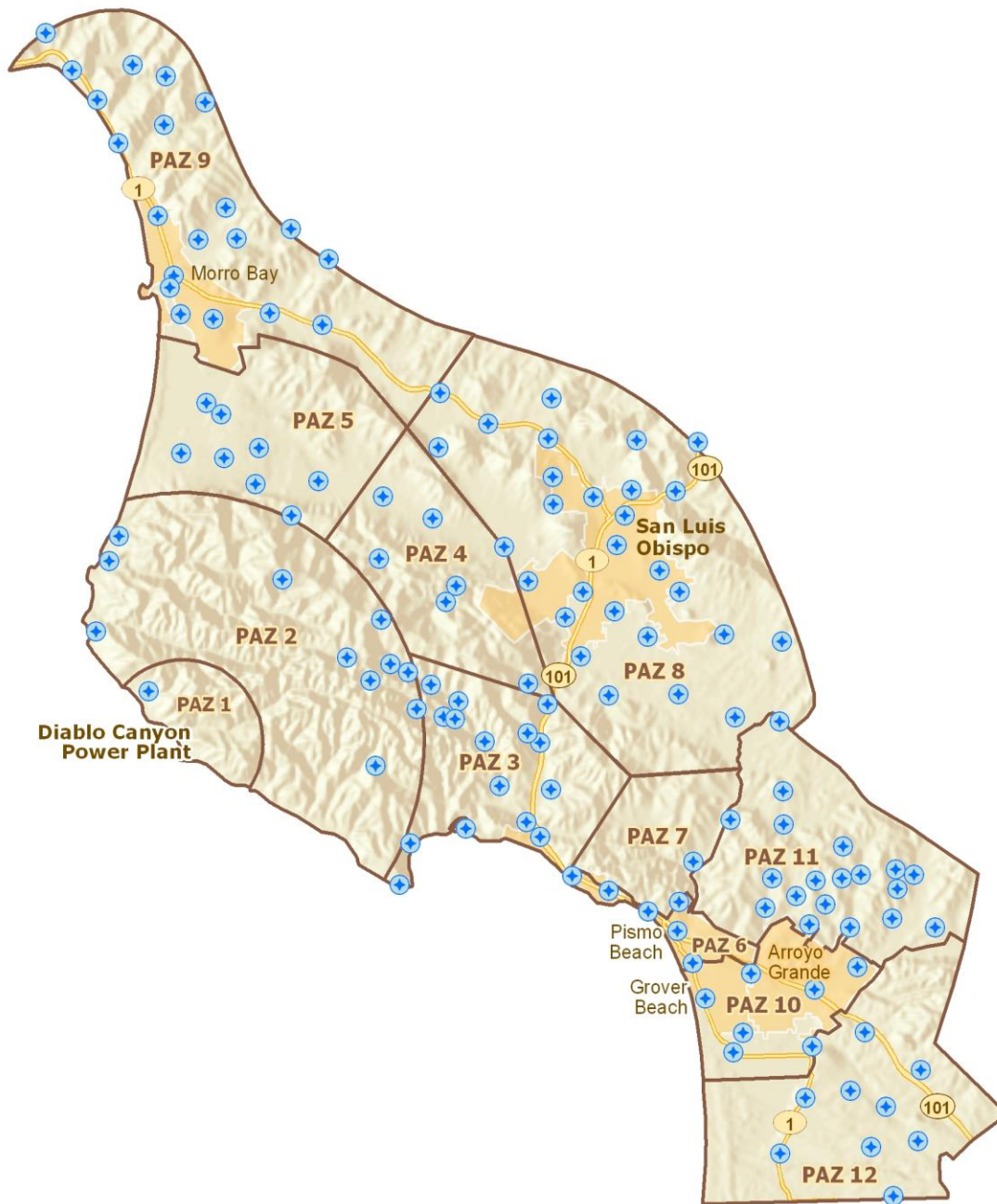
7.4.3 Early Warning System-Area of Coverage

The coverage area of the EWS has been extended beyond the ten-mile radius to include the approximately 18 miles north and 22 miles south of the plant. The design coverage objective is based on the following assumptions:

- 1) All populated areas within the outdoor siren coverage range will be alerted with a 60 dB or greater siren signal.
- 2) All public institutions and business operations will have and use means for communicating specific instructions to their personnel when they hear the siren signal.

The large area within the five-mile radius of the plant has limited siren sites since it is rugged wilderness and, largely, inaccessible to the public. A portion is identified as a state park with jeep trails. The County Emergency Plan provides special notification arrangements in this area.

There are 131 area sirens of various sizes used in the EWS. The siren locations and approximate areas of coverage are illustrated below.



7.4.4 Siren Location

The location of each siren was determined in accordance with ambient noise measurements and other considerations.

A site survey to measure ambient noise levels was made in the general area of each proposed siren site. These measurements, the topography, the terrain coverage and the population density formed the basis for choosing the siren setting. A substantial portion of the population covered by each siren will be in a sound field that is 10 dB above the average daytime ambient background noise. Each siren site was chosen to minimize the biological, cultural and human impacts consistent with proper acoustic coverage.

7.4.5 Early Warning System Activation

The EWS sirens are activated by a Supervisory Control and Data Acquisition (SCADA) control system with primary and backup activation centers. San Luis Obispo County Emergency Operations Center personnel are responsible for system activation. The SCADA control system sends commands to and receives data from the sirens via radio signals from radio base stations such as Tassajera, Black Butte, Davis Peak, and Arroyo Grande Hill. Most of the sirens can be reached from at least two of the base stations.

The SLO County Sheriff Watch Commander, is responsible for EWS activation upon authorization as described in the SLO County/Cities Nuclear Power Plant Emergency Response Plan. The sirens can be activated simultaneously, individually or in designated groups. Security provisions against inadvertent operation of the EWS are built into the SCADA control system.

Should any siren fail to activate, physical means for backup alert and notification are available as described in the FEMA approved alert and notification design report.

7.5 ON-SITE ASSESSMENT SYSTEMS AND EQUIPMENT

7.5.1 Seismic Monitoring System (SMS)

In the event of an earthquake, the mitigating actions required are determined by the magnitude of the earthquake. The seismic instrumentation, as described in Section 3 of the DSAR, includes the equipment used as the primary means for timely determination of the magnitude of an earthquake. Emergency classification is based on the earthquake magnitude displayed on the Earthquake Force Monitor located in the control room. In the event of an earthquake measuring greater than 0.01 g on the acceleration recorder at 89' elevation of the Unit 1 containment structure, or on the free-field acceleration recorder located north of Unit 1 containment, an annunciator will alert the control room operators and peak ground acceleration (g) values from the seismic monitors will be displayed on the Earthquake Force Monitor. The Unit 1 acceleration recorders represent on-site ground motion for both Units 1 and 2.

7.5.2 Meteorological Systems

7.5.2.1 Measurement Systems

As shown in DSAR Figure 2.3-4, there are two meteorological (Met) towers located on-site and seven supplemental Met towers that are located off-site within the vicinity of the plant. The seven supplemental (10-meter) Met towers (Pt. Buchon, Los Osos, Foothill, Service Center, Information Center, Grover Beach, and Davis Peak) have meteorological instrumentation run exclusively for DCPD by PG&E. In addition, two other off-site Met locations (Templeton and Santa Maria) are run by PG&E for other projects, but have data available for emergency response. Also available are two 10-meter tower sites (Morro Bay and Grover Beach) that are operated by the San Luis Obispo County Air Pollution Control District and the aviation weather observations at the county airport.

The seven supplemental PG&E surface (10-meter) Met towers provide consecutive 15-minute averages of wind speed, wind direction and wind direction standard deviation (sigma theta) based on a 1-2 second sampling interval. The APCD 10-meter sites provide hourly averages of wind speed and direction based on a 1-second sampling interval at Grover Beach and Morro Bay. The Weather Service/Airport site provides standard airways sequence data. All data from the PG&E sites are available in real time at the EOF by PG&E Wide Area Network and dial-up modem.

Site meteorological conditions are monitored continuously by the two on-site meteorological towers that are in close proximity to the plant structures. A primary 76-meter tower system is located about 200 meters SSW of the plant structures. Measurements have been taken and used from this site since July 1967. The following data are provided:

- Wind speed, wind direction, wind direction standard deviation at the 10-meter and 76-meter levels
- Temperature at 10-meters, 46-meters, and 76-meters
- Temperature difference (delta T) between 10-meter and 46-meter and between 10-meter and 76-meter levels
- Precipitation and dew point near the tower base
- 10-meter, 46-meter and 76-meter aspirator frequency

Meteorological data at the primary site is recorded continuously on a multi-point recorder and digitized electronically at least once every two-seconds. A primary meteorological digital processor is located in the primary meteorological facility that communicates data to redundant meteorological computers located in the TSC (DSAR 2.3.4). Fifteen-minute mean values are computed from the transmitted data by the TSC meteorological computers.

The redundant TSC meteorological computers provide data to redundant meteorological data servers which provide Unit 1 & 2 network communication of the 15 minute values to the Plant Data Network, EARS, and PPC.

A backup 60-meter tower system is located about 1.2 KM ESE of the primary tower with two levels of measurement at 10-meters and 60-meters. Measurement, reduction, storage, recording and transmission of backup tower data are continuous with and similar to that of the primary system. The backup Met system measures (DSAR 2.3.4.):

- Aspirator frequency.

- Battery condition.
- Temperature difference (delta T) between 10-meter and 60-meter

It does not measure temperature at the intermediate level and the measurement of precipitation and dew point are available only at the primary site. A backup meteorological digital processor is located in the backup meteorological facility that communicates data to redundant meteorological computers located in the TSC (DSAR 2.3.4). Failure of either the primary or backup systems will be shown on both the Unit 1 and Unit 2 PPC alarm screens and alarm printers. Power for the primary system is derived from the Unit 1 480 volt non vital bus with automatic switching in the event of failure to the Unit 2 480 volt bus. The primary microprocessor and meteorological sensors are backed up by an 8-hour battery source. The backup meteorological system is supplied AC power from the underground 12kV startup bus with backup power in the form of a one-week battery source.

In the event of failure of both the primary and backup electronic measurement systems, a portable weather instrumentation package is available for deployment. This instrumentation package is battery powered for independent operation and provides recording of wind speed, wind direction and ambient temperature, which can be used to estimate off-site effects through manual calculation procedures in the event of failure of the automated assessment process. Should its use be required, (X/Q would be determined by using wind speed and a stability category based on wind direction range. (See App. 2.3I of Reference 3).

These measurement systems have been upgraded continually and currently satisfy all requirements of NUREG-0737, NUREG-0654, and Regulatory Guide 1.23 of the NRC.

7.5.2.2 Modeling Systems

Dispersion modeling software is operational on the Meteorological tower on-site computer systems to provide required inputs to the Dose Calculation Methodology. The model in use is consistent with characteristics of a Class A model as required by NUREG-0654 and 0737. Normalized ground level plume centerline concentration (dilution) values (X/Q) are computed by the model as 15-minute means for ten downwind distances ranging from 0.8 to 100 kilometers. Lateral and vertical plume dimension (sigma y and sigma z) are also provided for each of the same downwind distances. Concentration and plume dimension data generated by the model provide the necessary relationships between effluent monitor readings and off-site exposure and contamination levels. These data are distributed to recipients in the same manner specified earlier for meteorological measurement data.

Additional details on the meteorological measurement and modeling systems are provided in Section 2.3 of Reference 3.

7.5.3 Area Radiation Monitoring System

The area radiation monitoring system is a system of permanently installed radiation monitoring detectors located throughout the plant. Monitors and locations are listed below. The purpose is to measure the ambient radiation level in each monitored area. Such information is used both for personnel radiation protection purposes and to alert personnel to the release of radioactive materials within a plant structure.

This system includes G-M or Ion chamber detectors that are permanently mounted. Each of these instruments has a readout at the detector and in the Control Room, except as noted below. If an adjustable high radiation setpoint is reached, audible and visual alarms are sounded both at the detector and in the Control Room. The GM detector instruments are calibrated in mR/hr and have a range of 0.1 up to 10,000 mR/hr. The instruments will remain pegged full scale at radiation levels beyond the full-scale value. These instruments are powered from emergency power sources and would be available for post-accident use (except as noted below).

Additional detectors have been added to augment the original system of GM detectors in order to provide area monitoring where new spaces or specialized equipment have been added. The additional areas where these detectors have been added are in the Technical Support Center (G-M Type).

Detector Number	Location	Remarks
U-1 & 2 R-1	Control Room	
U1-R-34 U2-R-34	85' Plant Vent RMS Room (ALARA)	
U1-R-58 U2-R-58	Spent Fuel Pool Storage Area	
U1-R-59 U2-R-59	New Fuel Storage Area	
U-1 & 2 R-60 U-1 & 2 R-61 U-1 & 2 R-62 U-1 & 2 R-63 U-1 & 2 R-64 U-1 & 2 R-65	TSC Office Area TSC Operations Area TSC Computer Area TSC NRC Office Area TSC HVAC Equipment Area TSC Lab Area	Local readout only Normal power is from non-vital supply, but can be aligned to vital buses from Switchgear room.

7.5.4 Process Radiological Monitoring System

Several liquid and gaseous plant process streams are continuously monitored for radioactivity to provide an indication of equipment performance and provide a record of radioactivity releases to the environment. The important process monitors from the standpoint of potential usefulness in emergency situations are listed below.

Detector	Process & Location	Type	Range (CPM)	Remarks
1-R-14/14R 2-R-14/14R	Plant Vent gas (85' area L)	Beta scintillation	10^1 to 5×10^6 cpm read out in $\mu\text{Ci/cc}$	Detector looks at pressurized sample flow downstream of iodine and particulate monitors.
1-R-17A,B 2-R-17A,B	Component Cooling Water (73' Aux. Building)	Gamma scintillation	10^1 to 10^6 cpm	Detector looks at sample off CCW discharge header. High alarm isolates CCW surge tank vent.
R-18	Liquid radioactive waste system effluent line to ocean (54' Aux. Building)	Gamma scintillation	10^1 to 10^6 cpm	Looks at waste stream prior to dilution in outfall. High alarm closes waste discharge valve and diverts to EDR.

Detector	Process & Location	Type	Range (CPM)	Remarks
R-3	Oily water separator effluent (85' Turbine Building)	Gamma scintillation	10^1 to 10^6 cpm	
1-R-22 2-R-22	Gas decay tank discharge gas (54' Aux. Building)	G-M	10^1 to 10^6 cpm	Detector looks at gas decay tank discharge line and isolates it on high alarm.
1-R-24/24R 2-R-24/24R	Plant Vent iodine (85' area L)	Gamma scintillation	10^1 to 5×10^6 cpm (readout in $\mu\text{Ci/cc}$)	Detector looks at plant vent I-131. Sensitivity based on I-131. Continuous sample is drawn through fixed particulate prefilter and silver zeolite cartridge in series. Detector looks at silver zeolite cartridge.
1-R-28/28R 2-R-28/28R	Plant Vent particulate (85' area L)	Beta scintillation	10^1 to 5×10^6 cpm (readout in $\mu\text{Ci/cc}$)	Continuous sample drawn from plant vent is drawn through fixed filter and detector looks at filter
1-R-29 2-R-29	Plant Vent high range gross gamma (outside PV on 155' lvl)	Ion-chamber	10^{-1} to 10^7 mR/hr	Detector monitors plant vent gross gamma by using a shielded detector with a wedge shaped "view window" aimed at the plant vent.
1-R-41 1-R-42 1-R-43 2-R-41 2-R-42 2-R-43	Gas decay tanks (64' Aux Building).	Ion-chamber	10^0 mR/hr to 10^4 mR/hr	Readout is at the Aux. Building Control Panel only. Well mounted with view ports directed at each tank.
R-66 R-68	TSC HVAC Duct TSC Lab	Beta scintillation	10 to 10^6 cpm	Particulate Monitor
R-67 R-69	TSC HVAC Duct TSC Lab	Beta scintillation	10 to 10^6 cpm	Noble Gas Monitor
R-82 R-83	TSC HVAC Duct TSC Lab	Gamma scintillation	10 to 10^6 cpm	Iodine Monitor
1-R-87 2-R-87	Plant Vent extended range gas (85' area L)	Beta scintillation	10^{-3} to 10^5 $\mu\text{Ci/cc}$	Extended Range Plant Vent Noble Gas Monitor
1-RF-87A & 87B 2-RF-87A & 87B	Plant Vent Sample (85' area L)	Sampler only	N/A	Iodine Grab Sample (High Range)

7.5.5 Radiological Counting Room

The plant has extensive counting room equipment that is used for routine radiochemical determinations. This equipment could also be used during emergencies.

7.5.5.1 Location and Availability

The counting room is located on the +85' elevation of the Auxiliary Building. This area would be expected to be available during most emergency conditions. The TSC also has the capability to accomplish radiochemical analyses.

7.5.5.2 Counting Room Equipment

1) Multi-channel gamma analysis capability

The counting room has a gamma spectroscopy system that utilizes high purity germanium detectors with high-resolution quality. The data is analyzed (peak search, peak fit, peak identification, peak quantification, etc.) by a host computer.

Analysis data from the counting room can be transmitted to the on-site Technical Support Center.

2) Liquid Scintillation Spectroscopy

The counting room employs liquid scintillation spectroscopy. This analyzer is microprocessor controlled. The analyzer is primarily used for tritium (hydrogen - 3) analysis.

3) Proportional Counting Systems

The counting room has a gas flow proportional counting system that is used for alpha and beta measurements.

7.5.6 Analytical Facilities Associated with On-Site Technical Support Center

One compartment adjacent to the Technical Support Center is set aside for analytical work. The principal purpose of this facility is to provide necessary on-site analytical capability in the event that the normal facilities in and around access control are unavailable. A germanium gamma spectroscopy system similar to those in the counting room is provided for isotopic analysis.

7.5.6.1 Emergency Assessment and Response System/Meteorological Information Display Assessment System

EARS receives and transfers input data from a variety of off-site and on-site monitors to a central computer for performing dispersion dose calculations using MIDAS. MIDAS includes a region specific meteorology input atmospheric dispersion model which accounts for nonlinear plume transport due to meteorology differences created by sea breeze, hill and valley influences. MIDAS provides plume projection maps and other assessment related information to centers both on-site and off-site. Overall system design seeks to optimize the diagnostic ability of operators and emergency response groups, maximizing the ability of system operators to understand events as they unfold.

EARS is interfaced to selected channels of the on-site meteorological towers, the off-site supplemental, region-specific meteorology towers, and plant radiation monitoring system. MIDAS calculates doses for off-site locations based on data received from EARS. These computed plume displays, along with input data, source terms, and meteorological parameters, are transmitted via data links to UDAC.

Each EARS/MIDAS workstation has the capability to graphically display plume projection maps and data, and to provide hard copy to the user. Displays at the TSC, EOF, and Alternate Facility are capable of accessing files generated at any other EARS/MIDAS workstation for the purpose of response planning and coordination between the facilities. Displayed information may be selected from several forms of calculated data and map presentations. Mapping capabilities are provided to superimpose plume boundaries, dose rates, airborne concentrations, population centers, and evacuation routes. Color graphics and printouts are used to increase the information content and readability of information.

7.5.6.2 System Description

EARS/MIDAS consists of three functional subsystems:

1) **Input Data Subsystem**

The data acquisition subsystem provides live-time radiological and meteorological data needed by the central computer as input parameters for the dose projection models. The specific input data systems are described below.

2) **Central Computer Subsystem**

The servers, PCs, peripherals, and software needed to manage input and output communications, and to maintain live-time and historical databases. The central computer subsystem is the main data storage and distribution point for EARS/MIDAS. It is located in the TSC.

3) **EARS/MIDAS Workstations**

These are the dedicated PC workstations; with color graphics display monitors, color printers, and the EARS/MIDAS software for execution of the dose projection model, and transmission of results to the central computer and other EARS/MIDAS workstations.

EARS/MIDAS workstations are distributed at the following locations:

- Control Room (DCPP)
- TSC (DCPP)
- EOF (San Luis Obispo)
- Alternate Facility (San Luis Obispo)

All EARS/MIDAS workstations are control enabled stations, capable of performing dose projections. Data transmission and software execution rates provide for updating the graphics display at intervals of not more than fifteen minutes.

4) Input Data Systems

a) Off-Site Radiation Monitors

The off-site monitoring system consists of a "ring" of low-level gamma dose-rate monitors installed at selected locations at distances of 6-17 miles from the DCPD site. These fixed locations have been chosen with a dual purpose of providing measurement stations at population centers, and of including the largest practical number of land-based sectors from the site.

b) Meteorological Towers

Meteorological data are provided from the primary on-site meteorological tower, and a secondary (backup) meteorological tower located on-site equipped with similar instrumentation at two levels, the meteorological data from either on-site tower, and the 7 off-site supplemental towers is accessible from any DCPD network PC.

EARS automatically receives and transmits to MIDAS the necessary data from the primary tower, with auto-failover to backup tower data for any missing parameters. EARS also automatically receives and transmits to MIDAS the necessary data from the off-site supplemental, region-specific meteorology towers with auto-failover to the next most appropriate region meteorology tower data if any region meteorology tower input is indicated as bad data. Manual entry of current data from the primary, backup and supplemental meteorological towers is possible in the event of some problem with automatic input or data reduction.

c) On-Site Radiation Monitors and Plant Process Instruments

Parameters from fixed radiation monitoring and process instruments are available to any network PC. EARS automatically receives and transmits to MIDAS the radiation monitor and flow element readings necessary for performing dose projections.

<u>No. of Monitors</u>	<u>Monitor Channel</u>	<u>Monitor Function</u>
2	R-14	Plant Vent Noble Gas Monitor
2	R-14R	Plant Vent Noble Gas Monitor, redundant
2	R-22	Gas Decay Tank Discharge Monitor
2	R-24	Plant Vent Iodine Monitor
2	R-24R	Plant Vent Iodine Monitor, redundant
2	R-28	Plant Vent Air Particulate Monitor
2	R-28R	Plant Vent Air Particulate Monitor, redundant
2	R-29	Plant Vent Gross Gamma Monitor
2	R-87	Extended Range Plant Vent Noble Gas Monitor
2	FM-12	Plant Vent Flow Rate

7.5.7 Portable Survey and Dose Rate Instruments

A variety of portable survey instruments (count rate and dose rate) are available at the plant for routine as well as emergency radiological monitoring. The general equipment types are summarized below. 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; new products appear on the market, etc. Portable survey instruments are normally located at Access Control when not in use.

Typical Portable Count and Dose Rate Meters Used

Instrument (Model No. or equivalent)	Detector Type	Radiation Measured	Range	Primary Use
Beta-Gamma count rate meter, with the following detectors:			0-600 CPM 0-6000 CPM 0-60,000 CPM	General contamination surveys
Hand probe (HP-260)	GM	Beta, Gamma		
Shielded hand probe, (HP-210)	GM	Beta, Gamma		
Count rate meter (RM-15) for use with GM probes listed above, and:			0-500 CPM 0-5,000 CPM 0-50,000 CPM 0-500,000 CPM	Personnel contamination surveys
alpha scintillation probe (AC-3B-7)	ZnS (Ag ₂), 59 cm sensitive area	Alpha		
gamma scintillation probe (SPA-3)	Nal (T1) 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 CPM 0-5,000 CPM 0-50,000 CPM 0-500,000 CPM	General contamination surveys
Beta-Gamma dose rate meter (HP 270 shielded hand probe)	GM	Beta, Gamma	0.1 -10,000 mR/hr 0-3000 mR/hr (HP-270 probe)	General environmental radiation surveys
Portable REM Counter (PNR-4)	BF ₃	Neutron, thermal to 10 MeV	0-5 mR/hr 0-50 mR/hr 0-500 mR/hr 0-5000 mR/hr	Neutron dose rate
Teletector 6112 OR Equivalent (Johnson Extender, Telescan)	Twin G-M tubes 30 mg/cm 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

Instrument (Model No. or equivalent)	Detector Type	Radiation Measured	Range	Primary Use
RO-2 or equivalent	Ion chamber 3.5 mg/cm beta window air fill gas	Beta, Gamma	0-5 mR/hr 0-50 mR/hr 0-500 mR/hr 0-5 R/hr	Dose rate
RO-2A or equivalent	Ion chamber 3.5 mg/cm beta window air fill gas	Beta, Gamma	0-50 mR/hr 0-500 mR/hr 0-5 R/hr, 0-50 R/hr	Dose rate

7.5.8 Field Monitoring and Evacuation Kits

1) Field Monitoring Kits

Field Monitoring Kits are stored on-site at Warehouse B (bldg. 113) and off-site at the EOF. Miscellaneous equipment is stored at a location near the EOF. The purpose of Field Monitoring Kits is to provide FMTs with the portable supplies in convenient locations for quickly dispatching teams to the field. These kits contain equipment and supplies that allow assessment of ambient exposure rate, airborne, particulate concentration, airborne radioiodine concentration, and ground deposition.

Radiological Emergency Kits Contents	
12VDC Air Sampler, sample head	Allen Key for Environmental TLD Holders
Constant Geometry Holder	Decon Center Key
Extra Sample Head	Corporate 909 Key
Air Sample Particulate Filters	Fuses for Air Sampler
AgZ and/or TEDA Impregnated Cartridges	Electronic Personal Dosimeters (0-1000R)
Paper Envelopes for Particulate Filters	Count Rate Instrument
Small Ziploc Bags	Dose Rate Instrument
Forceps	Pancake GM probe HP-210/260 (or equivalent)
Smears	Extra Batteries for instruments
Timepiece	Instruction Binder containing procedures, forms and maps
Marking Pens	Protective Clothing
Tape	Calculator
Flashlight	KI Tablets
Plastic Bags	

The following miscellaneous equipment is located with the on-site kits.

2-way radios, cell phones, and satellite telephones
Bolt Cutters

The following miscellaneous equipment is located with the off-site kits.

Trowel	Radiation Signs w/Inserts
Grass Shears	Radiation Barrier Tape
Liter Bottles	Air Sample Particulate Filters
Coveralls	AgZ and/or TEDA Impregnated Cartridges

Radiological Emergency Kits Contents	
Skin Decon. Soap	Paper Envelopes for Particulate Filters
Scrub Brush	Small Ziploc Bags
Flashlight	Surgical Gloves
Paper Towels	Smears
Plastic Bags	Extra Batteries
Tape	2-way radios, cell phones, and satellite phones

2) Evacuation Kits

Evacuation Kits are available for the purpose of providing Evacuation Teams with the necessary portable supplies for performing contamination surveys of evacuated site personnel and their vehicles. The Evacuation Kits are stored at Warehouse B (bldg. 113).

If the Site Emergency Coordinator recommends evacuating non-essential personnel on-site, the Evacuation Kits will be obtained by the Evacuation Coordinator and their monitoring staff prior to the evacuation.

Evacuation Kits Contents	
Barricade Tape	Decon Center Key
Batteries	Dose rate instrument
Instruction Binder containing procedures, forms and maps	Electronic Personal Dosimeters (0-1000R)
Bullhorn	Flashlight
Calculator	GM Probe, HP-210/260
Corporate 909 Key	Pens
Count rate instrument	Plastic Bags
Protective Clothing	Smears

3) Hospital Kit

Hospital kits containing portable instrumentation, protective clothing and rad protection supplies are stored at French Hospital in San Luis Obispo and Marian Medical Center in Santa Maria.

Hospital Kit Contents	
Barricade Tape	Markers
Batteries	Electronic Personal Dosimeters (0-1000R)
Count Rate Instrument	Rad Sign - 6 pocket
Disposable Coveralls	Rad trash tags
Dose rate instrument	Radiation and Contamination Survey Sheet (Form 69-20786)
Yellow/Magenta Tape, 2" width	Shoe Covers
Duct Tape	Smears
GM probe, HP 210/260 (or equivalent)	Ziploc bags
Latex Gloves	

4) Clothing

Clean overalls and shoe covers are stored with the evacuation kits on-site, at the PG&E Energy Education Center, and at the TSC for use in the event emergency worker evacuee clothing is contaminated.

7.5.9 Fire Detection and Trouble Alarm System

The Fire Detection and Trouble Alarm System uses heat detectors, flame detectors, and smoke detectors to provide the Control Room with an early warning of the existence and location of a fire or potential fire and in certain instances, initiates fire suppression systems.

In addition to the smoke and flame detection system, a vital equipment room temperature monitoring system provides indication of abnormally high compartment temperatures which may result from fire, ventilation system malfunction, or other equipment malfunctions. Individual components are equipped with the usual complement of trouble alarms, some of which (e.g., high temperature bearing alarm) can provide the operators with early warning of fire or potential fires.

7.5.10 Sampling and Analysis Capability

1) Spent Fuel Pool Sampling

If emergency conditions require sampling of SFP water, sampling may be performed by sampling the SFP sampling system. In addition to the normal plant laboratory facilities, the TSC has instrumentation for radiological analysis of the samples.

7.5.11 Miscellaneous Post Accident Assessment Instruments

1) Spent Fuel Pool Area Radiation Monitoring

These detectors are part of the area and process monitoring systems and have been provided to monitor radiation levels inside of the fuel handling building. The units read out and alarm in the Control Room. These units are supplied from AC and are seismic design Class I.

The radiation level inside the fuel handling building can also be estimated from outside the fuel handling building using hand held instruments.

2) Spent Fuel Pool Water Level

Wide range and narrow range SFP water level recorders can be used to indicate water level from the bottom of the SFPs via the PPC. The indicators annunciate in the Control Room.

3) Spent Fuel Pool Temperature Indication

SFP temperature is monitored via the PPC and annunciates in the Control Room.

7.6 OFF-SITE MONITORING EQUIPMENT

7.6.1 Off-Site Geophysical Monitors

Off-site seismic observation and monitoring facilities in the coastal region are located at the University of California (Berkeley), California Polytechnic University (San Luis Obispo), California Institute of Technology (Pasadena), California Department of Water Resources (Sacramento), the U.S. Geological Survey (Menlo Park), and PG&E Geosciences Department (San Francisco).

7.6.2 Off-Site Meteorological Data

Data from off-site supplemental meteorological sites surrounding Diablo Canyon are available at the EOF and through the EARS central processing computer. The sites include seven surface meteorological sites located at Pt. Buchon, Los Osos, Foothill Blvd., Davis Peak, Energy Education Center, Grover Beach, and PG&E Service Center. Additional meteorological information that may be obtained on the PG&E Wide Area Network are: other PG&E power plants, off-site National Weather Service (NWS) data including upper air soundings at Vandenberg AFB, Oakland, San Diego, Las Vegas, Winnemucca and Medford, Oregon, and surface sites located in Monterey, Salinas, Paso Robles, Santa Maria, Santa Barbara, San Luis Obispo and Buoys EB11 and EB23. There are also additional surface meteorological sites available from central and southern California as well as the latest infrared and visual satellite images available at the EOF. Weather forecasts during Emergency Plan activation are available from the EOF, PG&E forecast office, NWS Los Angeles and Monterey.

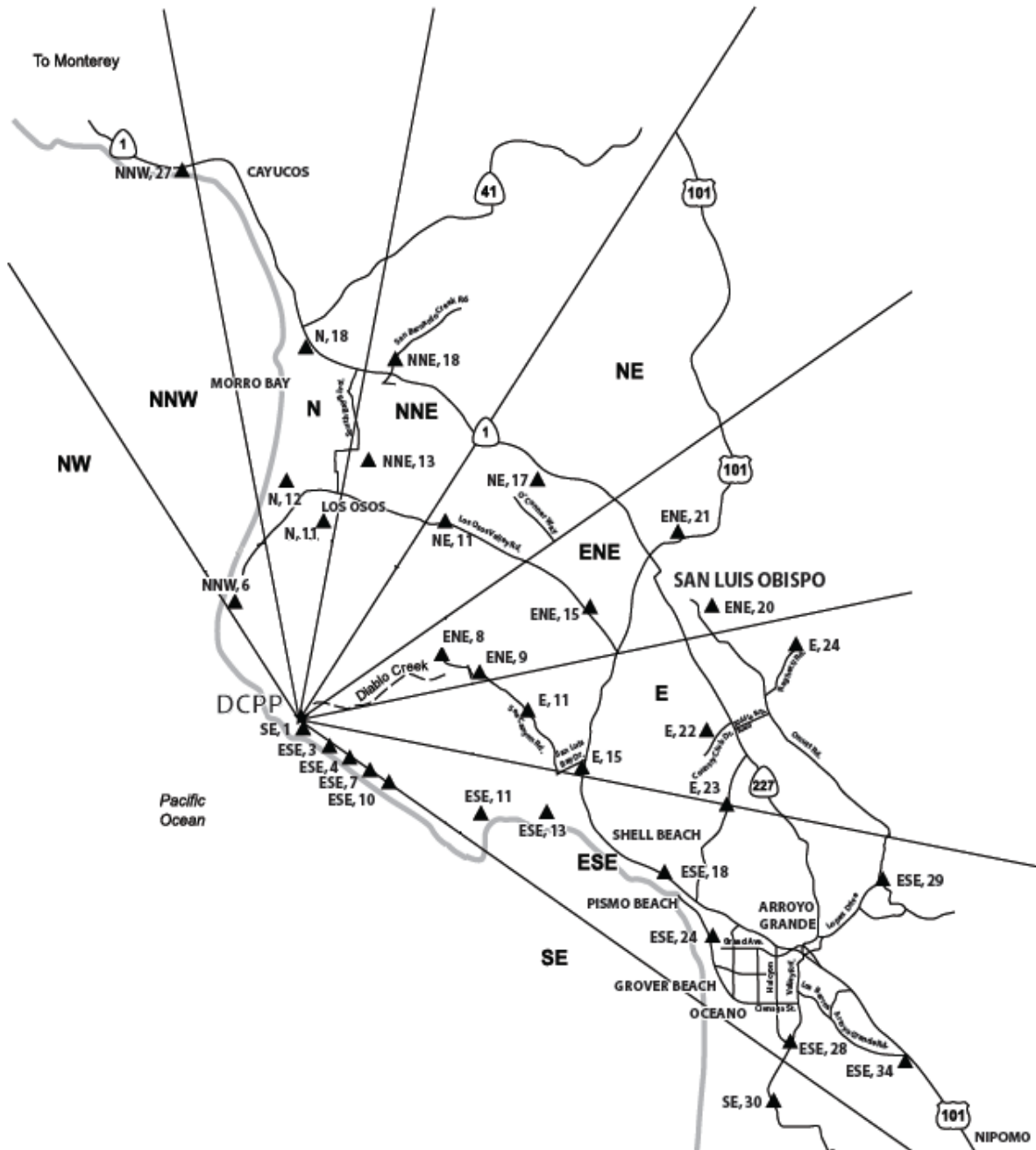
7.6.3 Environmental Direct Radiation Monitors and Air Sampling Devices

The Company has approximately thirty-five (35) direct radiation monitoring stations in the vicinity of the plant which are part of its ongoing environmental monitoring program. Each station is equipped with a thermoluminescent dosimeter. Fifteen (15) of these stations are located on-site and twenty (20) are located off-site.

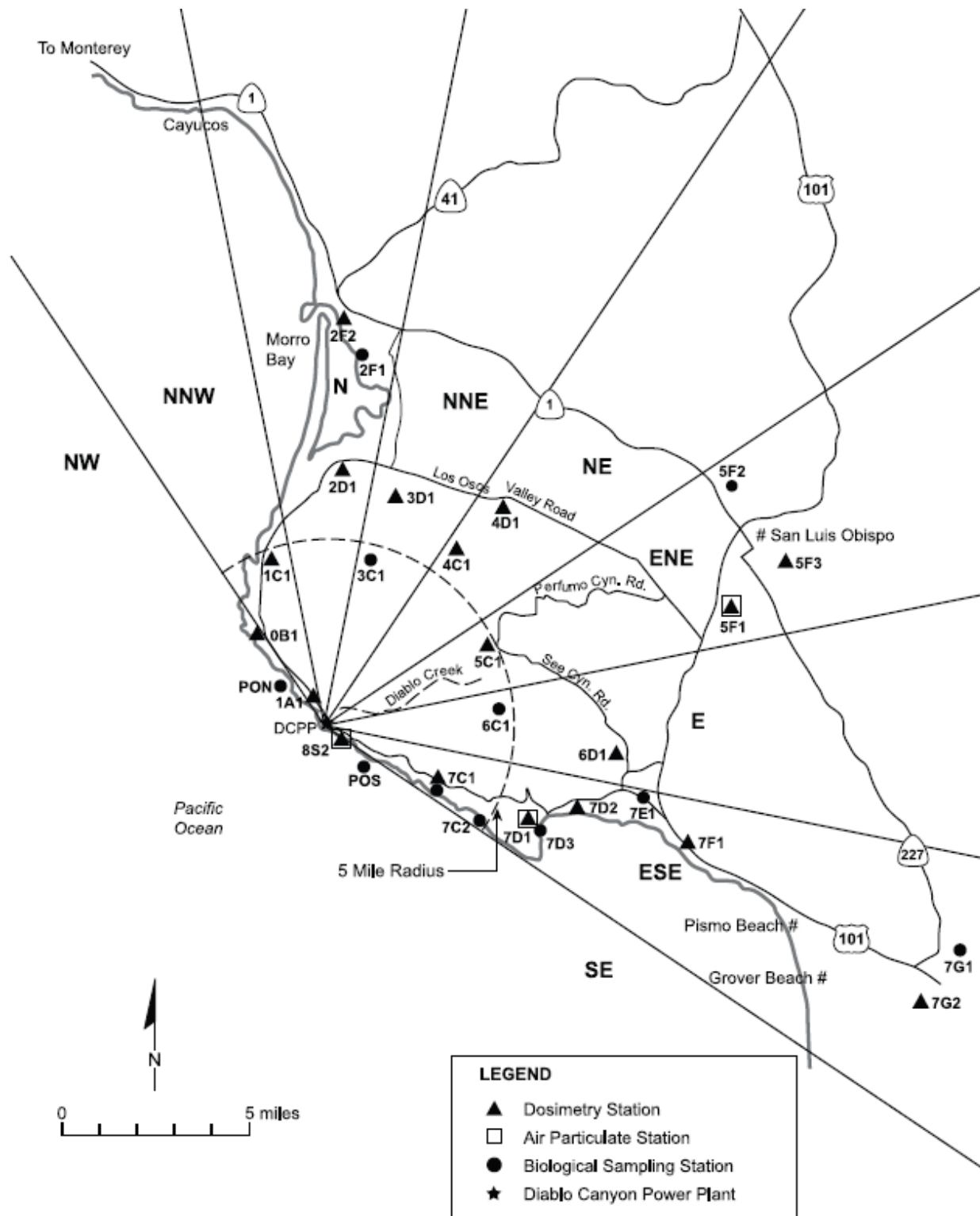
Twenty (20) of the stations are located in order to provide an inner ring of stations in the general area of the site boundary and an outer ring in the 4-5 mile range from the site with a station in each land sector of each ring. Since the site is on the coast surrounded by a hilly, generally inaccessible area, some areas of the site boundary and in the range of 4-5 miles are inaccessible. However, a monitoring station has been placed to the closest accessible location to the stated criteria. Some of the above monitoring locations are also equipped with an air sampler fitted with a particulate filter and iodine cartridge.

Maps of monitoring locations are shown below. Radiation monitoring stations located in Santa Barbara County in the cities of Orcutt, Lompoc, and Solvang are not shown on the map.

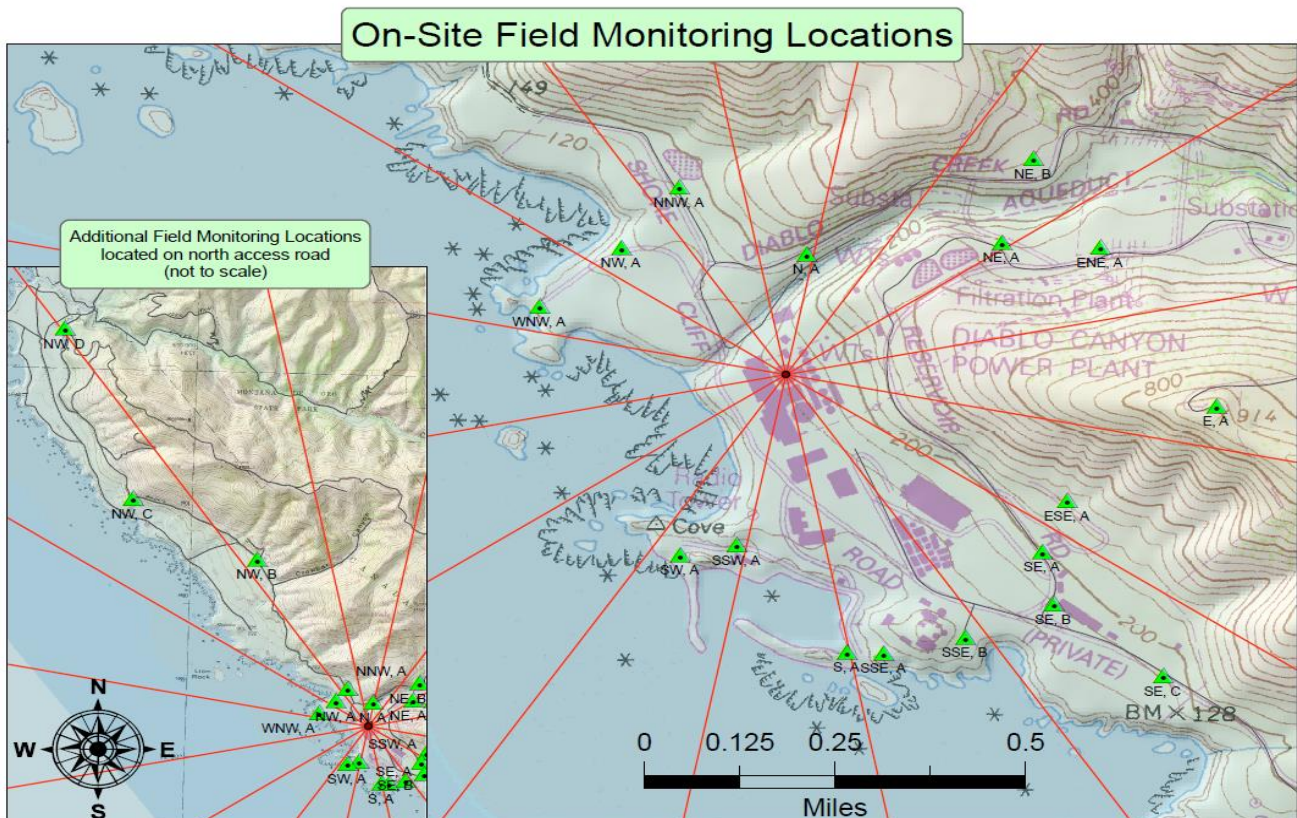
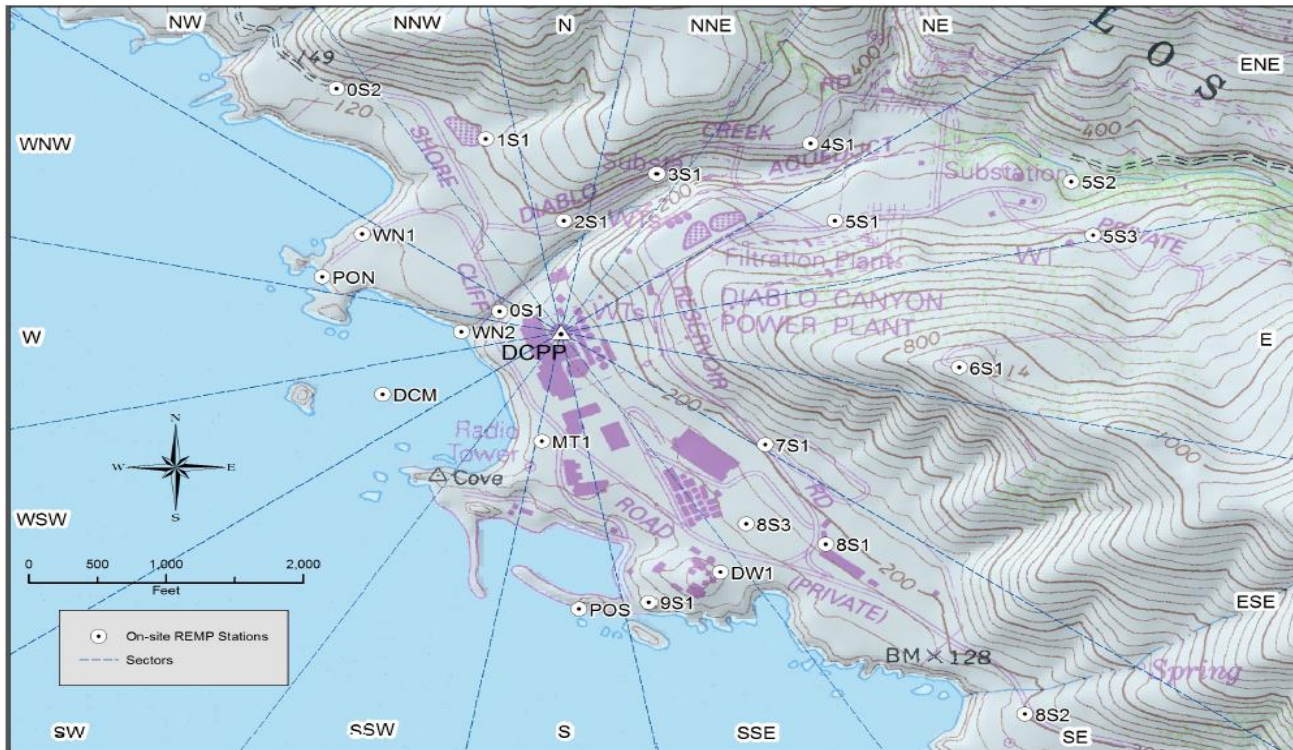
7.6.3.1 Emergency Off-Site Monitoring Locations



7.6.3.2 Off-Site Environmental Monitoring Stations

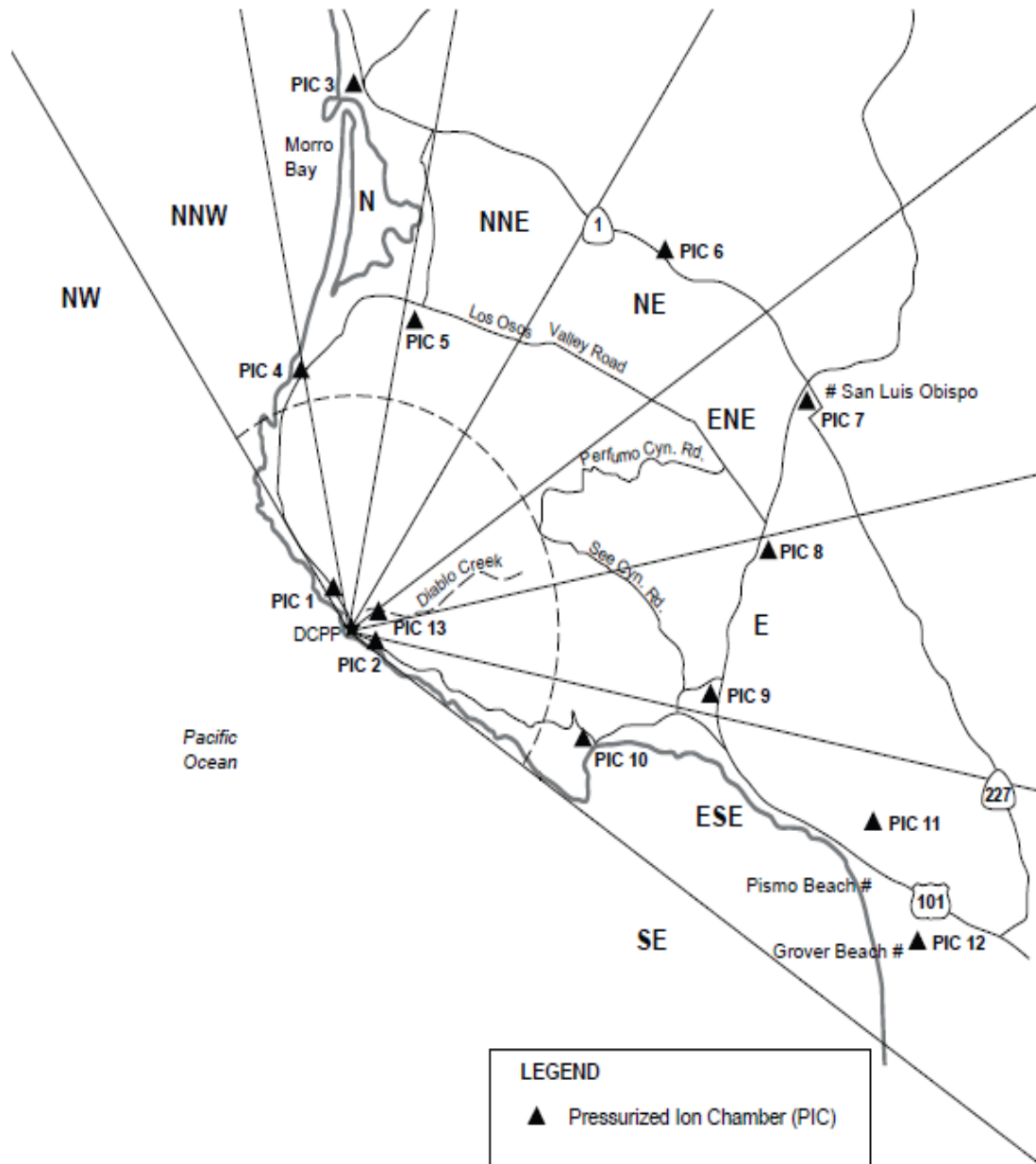


7.6.3.3 On-Site Monitoring Stations



7.6.4 Off-Site Radiation Monitoring System

The real-time radiation dose-rate monitoring system consists of thirteen low-level gamma radiation dose-rate monitors; ten are installed at the various population centers in the vicinity of DCP, and three located on the power plant site as shown and listed below.



PIC #	Description
1	DCPP North Gate Guard Post
2	DCPP SSW Corner of Target Range (near on-site field monitoring location, SE, B)
3	Morro Bay Switchyard
4	Montana de Oro State Park. At the Park Ranger's residence, adjacent to the siren
5	South Bay Fire Department
6	Outside rear entrance to EOF (south side of building) (NE, 17)
7	SLO Police Department. Intersection of Santa Rosa Street and Walnut Street Behind fence SW of Walnut Street driveway.
8	SLO Service Center, 4325 So. Higuera St., SLO (OEL Garage).
9	PG&E Energy Education Center (E,15).
10	DCPP Front Gate
11	Pismo Beach at the PG&E Pismo Warehouse on Price Canyon Road, about 0.5 miles NE of the Price Street intersection. PIC is located in the upper parking lot.
12	SLO County Building, Grover Beach. Exit Hwy 101 at 4th street. Take 4th to Longbranch and proceed NE on Longbranch. County Social Services Building is on corner of 16th and Longbranch.
13	DCPP ENE near the Old Steam Generator Storage Facility and Fleet Garage

These monitors employ a pressurized ion chamber (PIC) detector for accurate measurement of low-level gamma radiation ranging from background readings up to 10R/hr. Real-time PIC data can be read locally on a graphic display. In addition, PICs are polled by the EARS data acquisition subsystem in the TSC and 1-minute averaged data is made available on the display computers in the emergency response facilities.

The purpose of the PIC system is to provide continuous measurement and reporting to PG&E, local and state agencies of gamma radiation dose rates in the environment around Diablo Canyon Power Plant so that informed decisions to protect the public can be made. The technical description of the real-time radiation dose-rate monitoring includes:

- 1) Detector Type and Operating Range
 - a) Type: PIC Environmental Radiation Monitoring Station
 - b) Range: 0 micro R/hr to 10 R/hr

NOTE: Other detector specifications such as accuracy, sensitivity and operating temperature range can be found in the applicable detector vendor technical manual.

- 2) Data Transmitted to EOF

The data is taken from the real-time monitors by the EARS central computer at the TSC and this data is available on display computers in the TSC and EOF. The Radiation Monitor Data Display Terminal application on these computers is able to display map locations with all PIC station readings.

Monitor data will be stored in a database on the EARS central computer. Instantaneous readings are available within the previous 2 hours and one-hour averages are available on an annual basis.

Each monitor has a unique location number which is coded to prepared maps of different scales indicating exact locations of all monitoring stations. Each map can be displayed on the station's CRT's with monitor numbers overlaid at their respective locations and monitor data on one side of the map. The displayed map can also be transformed to hard copy on printer.

3) Detector Locations

The real-time radiation monitors locations were selected on the basis of three criteria. The first is the need to obtain radiation levels in the population centers surrounding DCP. The data received from the real-time monitors would not only provide routine background gamma radiation dose rate data but also gamma radiation dose rate in the event of a significant airborne release from DCP to augment radiation data obtained by field monitoring teams. The second is the need to distribute the monitors over as many of the land based compass sectors as possible. The final criterion relates to the prevailing wind direction, wind speed and the topography in the area of the DCP.

7.6.5 Off-Site Laboratories

Either of the following two off-site radiological laboratories may be used in the event of an emergency.

- 1) PG&E's Off-Site Emergency Laboratory (OEL) at the PG&E Service Center in San Luis Obispo
 - a) Location:
 - (1) PG&E San Luis Obispo Service Center, 4325 Higuera Street, San Luis Obispo, California.
 - b) Capabilities:
 - (1) Gamma Spectrum Analysis: 35 samples per 24-hour day; samples may be in the form of filters, cartridges, liquids and solids.
 - c) Equipment:
 - (1) Intrinsic germanium and/or sodium iodide detectors with associated electronics and desk top computer.
 - (2) Radio communications link with the Technical Support Center for voice transmission or analyses results.
 - (3) Portable health physics instrumentation.
 - d) Response Time:
 - (1) During normal hours - two hours following notification.
 - (2) During off-normal hours - two hours following notification.

- 2) Commercial Radiological Laboratory
 - a) Location:
 - (1) Charleston, SC.
 - b) Capabilities:
 - (1) Gamma Spectrum Analysis - 50 samples per 24-hour day; samples may be in the form of food, milk, water, air filters and iodine cartridges.
 - (2) Gross Alpha/Beta Analysis: 50 samples per 24-hour day; samples may be in the form of air filters and water.
 - c) Equipment:
 - (1) Intrinsic germanium detector with associated electronics and computer system.
 - (2) Liquid scintillation detectors.
 - (3) Gas proportional detector.
 - d) Response Time:
 - (1) During normal hours - staff existing at facility.
 - (2) During off-normal hours - two hours following notification.

7.6.6 Off-Site Emergency Laboratory (OEL)

Off-site field sample analysis equipment is stored at the PG&E Service Center in San Luis Obispo. The OEL analytical equipment is equipped with a gamma spectroscopy analysis and detection system, portable health physics survey equipment; communications equipment; and independent power supplies.

7.7 MISCELLANEOUS PROTECTIVE FACILITIES AND EQUIPMENT

7.7.1 Installed Smoke, Flame & Heat Detectors

Smoke, flame and heat detectors, which are located throughout the plant, are designed to give early warning of possible fire conditions. These detectors are annunciated on alarm panels in the Control Room.

When an alarm is received in the Control Room, a plant operator will be sent to investigate the cause of the alarm. If a fire condition exists, it should be reported by calling telephone extension 779. Fire suppression system alarms (i.e., sprinkler, deluge, CO₂, or Halon) also annunciate in the Control Room. These alarms could indicate a potential fire condition and shall be investigated in the same manner as any fire detection alarm.

7.7.2 Fire Detection by Personnel

Reporting of fires takes precedence over fighting a fire. Only personnel trained in firefighting equipment use should attempt to suppress a fire. The fire alarm signal system is the normal way to report a fire. The fire signal is initiated by dialing from any telephone on the plant site. The call goes to a Control Room Operator who receives information from the caller on a conference line. The fire alarm is sounded by a 30-second monotone sound. The alarm is followed by a public address system message with details about the fire.

The fire signal is a 30-second blast on the fire sirens.

When a fire alarm is sounded, the typical response is to perform the following duties immediately: The Fire Brigade can be made up of Industrial Fire Officers (IFOs) (i.e., Fire Captains and Fire Fighters) and Operations personnel. The Fire Brigade Leader can be a Fire Captain or a licensed operator that is Fire Brigade Leader qualified. A qualified CFH or NCO will accompany the Fire Brigade Leader unless the Fire Brigade Leader is the CFH or NCO. (See DSAR 9.5.) The IFOs are professional fire fighters and makeup the rest of the Shift Fire Brigade for Fire, Rescue and Hazardous Material Emergencies. The Fire Captain is trained as a Fire Brigade Leader and has the primary role to support the Fire Brigade as an "Operations Officer" in the ICS. The IFOs will be part of the 5 man Fire Brigade required by the DSAR.

The designated Shift Brigade Members will don protective equipment, pick up radios, proceed to the fire and maintain communication with the Control Room while fighting the fire.

The Security Department will upon notification of a fire, send a security officer to report to the Fire Brigade Leader.

Security will assist with access and the staging of off-site fire response personnel including providing dosimetry and escorts as necessary. Security will also assist the fire brigade with security barriers and ensure that plant security is not compromised during the emergency response.

The Shift Supervisor/SEC will notify CAL FIRE, San Luis Obispo County Fire (CDF/SLO). If the telephone lines are unavailable, the CDF/SLO radio will be used.

Notification shall be made for any of the following conditions:

- All structure fires or any fire that presents a threat to personnel or plant systems.
- Report of smoke within a structure with no known source for the smoke.
- Any wild land fire.
- Any non-fire emergency that would require a CAL FIRE / County Fire rescue or hazardous materials response.
- Any time the Fire Brigade Leader or Shift Supervisor/SEC recommends additional assistance.

DCPP control room staff will cancel or modify the original request by contacting the CAL FIRE Emergency Command Center using their 24-hour emergency phone line.

7.7.3 Plant Fire Detection and Suppression and Respiratory Protection

Plant fire detection and suppression systems and respiratory protection equipment are described in the DSAR.

7.7.4 Halon 1301 Systems

Halon 1301 Systems are present in but not exclusive to the following:

- 1) Learning Center Building - There are Halon 1301 cylinders of various sizes set up to protect six different areas within the building. The areas are activated through either a manual pull-station or smoke detectors (photo-electric and ionization) that are cross zoned for automatic release. Full detector activation on the simulator area will open main power breakers for the simulator and the computer, close ventilation dampers and will delay a Halon release for 30 seconds after an alarm. Two different alarms will sound prior to discharge. The first is a ringing bell that is caused from an activated detector. The second alarm is a flashing strobe light and a horn that has been activated from a second detector. The second alarm will bring a discharge of Halon within 30 seconds.
- 2) The Administration Building - Halon system protects microfiches and sixth floor PC Network rooms and the 1st floor Telecommunication room. The discharging of halon is caused by detector activation in the same way as the Learning Services Building.
- 3) The I&C/Tele Com/Medical Building - The Halon system protects the second floor telecommunication room. Halon discharge is caused by detector activation in the same way as the Training Building.
- 4) Document Storage Building (Building 603) - Halon discharge is caused by detector activation.

7.7.5 Mobile Fire Fighting Equipment

Mobile fire suppression equipment is provided to support a fire brigade response to areas outside of the main plant structures including construction areas and surrounding wildland. This equipment meets or exceeds what is required by NFPA 600 to include fire engine pumper with water tank, hoses, foam, etc.

7.7.6 Respiratory Protection Equipment

Respiratory protection equipment as described in the DSAR (Table 12.3-3) is available for emergencies involving fires and airborne radioactive materials.

7.7.7 Self-Contained Breathing Apparatus^{T03689}

Pressure demand Self-Contained Breathing Apparatus units (SCBA) are available at the site. Locations and numbers are as follows:

<u>Location</u>	<u>SCBA</u>	<u>Extra 30-Minute Tanks</u>
TSC	10	0
Control Room	10	0
Fire Brigade (various locations)	18	16
Access Control	20	20
Storage (various locations)	50*	64*
Total	108	100

***NOTE:** Up to one-half of this number may be removed for servicing.

At a minimum, there are at least two locations on-site where SCBA bottles can be refilled. The capability to refill bottles inside and outside of the RCA is available. A portable air compressor capable of refilling exhausted breathing air bottles is also available.

7.7.8 Constant Flow Air Line Respirators

The plant employs oil-free air compressors. As a result, the plant service air system can be used to supply breathing air. Approximately 20 MSA "clearvue" full facemasks outfitted as constant flow airline respirators are available. Duo-flow regulators allow the respirators to be used with HEPA filtration or as a constant flow system.

The regulators of these facemasks require a supply pressure of 35 to 40 psig. Since plant air supplies are at a higher pressure than this, pressure regulator boxes are used between the supply and the facemask. These boxes have manifolds where up to four separate air hoses can be plugged into the pressure regulated air. Approximately 10 of these regulator boxes are available at the site. Low pressure alarms are available to let the monitor know when pressure drops below the setpoint.

7.7.9 Radiological Protective Clothing

The plant is stocked with a considerable supply of protective clothing for normal personnel use when working in radiologically controlled areas of the plant. Typically, sufficient clothing is available for about 500 people.

7.7.10 Permanent Lighting Systems

The plant is provided with independent lighting systems:

1) Normal AC Lighting

Normal lighting is operated at 208/120 volts supplied from the 480-volt system. The DC emergency lighting is supplied at 125 volts from two of the station batteries and is limited to a period of approximately two hours. This lighting is located principally in control and electrical equipment rooms, stairways, exits and entrances, corridors, and passageways.

2) Emergency AC Lighting

The AC emergency lighting is supplied from two vital 480-volt buses. It is located throughout the plant to provide minimum lighting. The AC emergency lighting is routed in separate conduits from the normal AC lighting.

3) Emergency DC Lighting

The DC lights are also in separate conduits in vital operating areas of the auxiliary building.

After the diesel generators start and the single phase AC emergency transformers receive power, the DC emergency lights are automatically relayed off. An overlapping time delay keeps the DC lights operating while the AC emergency lights return to service.

Lighting panels and circuits breakers were tested by the supplier to satisfy seismic requirements. Lighting panel wall attachments have been calculated to be adequate for seismic loads. Conduit supports have adequate seismic supports. The standard fixtures for DC lights are direct mounted to building surfaces, and are therefore subject to building seismic forces. The fixtures will not experience appreciable amplification of seismic forces.

7.7.11 Portable Lighting

Numerous battery-powered lanterns and flashlights are maintained at various locations for normal and emergency use. Additional units are maintained as stock items in the warehouse.

7.7.12 Transportation

7.7.12.1 Plant Vehicles

There are several types of vehicles at the plant site, which can be used to provide emergency transportation. These include:

1) Two-wheel drive vehicles

There is a variety of two-wheel drive vehicles, including pickup trucks, at the plant site for general use and may be made available for use during an emergency.

2) Four-Wheel Drive Vehicles

Four-wheel drive vehicles are provided for use at the plant site. These vehicles may be used by the radiological monitoring teams to obtain field measurements in rugged terrain.

7.7.12.2 Ambulance

Prior arrangements exist with local ambulance services in San Luis Obispo for on-site service. The agreements include transportation of contaminated victims if required.

7.7.12.3 Off-Site Company Vehicles

The Company has a fleet of automobiles and trucks in its San Luis Obispo service area which can be mobilized in an emergency if required.

7.7.12.4 Air Transportation

The Company has air transportation capability available for emergency use.

The Company also has access to a variety of charter aircraft and helicopter companies for emergency use, including transportation of contaminated victims using an enclosed type litter.

7.7.12.5 Other Modes of Transportation

The Company owns and maintains two marine crafts at the DCP. These vessels may be available for personnel transport in the event road access is unavailable.

7.7.13 Alternative Facilities

Alternative facilities are established to function as a staging area for augmentation of emergency response staff. The facilities are accessible even if the site is under threat of or experiencing hostile action. The facilities have the capability for communication with the EOF, Control Room, and plant security; the capability to perform offsite notifications; and the capability for engineering assessment activities, including damage control team planning and preparation, for use when onsite emergency facilities cannot be safely accessed during hostile action.

The alternative facilities are located a safe distance from DCPD. This distance supports rapid response to the plant when accessibility is restored.

7.8 FIRST AID AND MEDICAL FACILITIES

The facilities for medical attention and personnel decontamination are located in the Building 102 Medical Facility immediately to the west side of the Unit 1 Turbine Building. Access to the RCA of the plant can be accomplished on foot or with the site emergency vehicle. Off-site ambulances can also readily access the Medical Facility or the RCA. Decontamination effluent generated at the Medical Facility is contained for proper disposal.

The DCPD Medical Facility provides routine occupational medical care as well as emergency care for sick or injured personnel.

Emergency medical service is available 24 hours a day, seven days a week by registered nurses or trained EMTs.

7.8.1 Personnel Decontamination Facilities

A decontamination room is provided at Access Control on elevation +85' of the Auxiliary Building, which has a sink and shower that drain to the liquid radwaste laundry collection tanks. Various decontamination aids are provided, such as brushes, skin decontamination soaps, rubber gloves, creams, wiping tissues, towels, etc. Monitoring instrumentation is readily available from the access control instrument storage.

7.8.2 First Aid Kits and Stretchers

Standard Company first aid kits and basket stretchers are placed at various locations throughout the plant.

7.8.3 Whole Body Counters

The plant maintains at least two computer-based whole body counters. Models may include a vertical counter with a sodium iodide (NaI) detector or an IGE bed counter, which if circumstances require, can be configured as a NaI bed counter.

7.9 CROSS REFERENCE TO NUREG-0654

NUREG-0654	DCPP Emergency Plan	NUREG-0654	DCPP Emergency Plan
C.1.a to c	N/A	H.6.b	7.6.3, 7.6.4, 7.6.52d)(2)
C.3	7.5.5, 7.6.52d)(2)	H.6.c	7.5.5, 7.5.8, 7.6.5, 7.6.6
C.4	N/A	H.7	7.5.6.1, 7.5.8, 7.6.3, 7.6.4
E.6	7.4	H.8	7.5.2
F.1.a	7.2.4, 7.2.5, 7.2.7, 7.2.11	H.9	7.1.4
F.1.b	7.2.4, 7.2.5, 7.2.6, 7.2.7, 7.2.10, 7.2.11, 7.2.12	H.10	N/A
F.1.c	7.2.4, 7.2.5, 7.2.7, 7.2.9	H.11	7.5.7, 7.5.8, 7.6.52d)(2), 7.7.3, 7.7.5, 7.7.9, 7.8.1, 7.8.2
F.1.d	7.2.1, 7.2.2, 7.2.4, 7.2.5, 7.2.6, 7.2.7, 7.2.10, 7.2.11	H.12	7.1.3, 7.1.5, 7.6.52d)(2)
F.1.e	7.2, 7.3.1	I.2	7.5.2, 7.5.3, 7.5.4, 7.5.7, 7.5.10
F.1.f	7.2.7, 7.2.9	I.3.b	7.5.3, 7.5.4, 7.5.6, 7.5.6.1
F.2	7.2.1, 7.2.11	I.4	7.5.6.1
F.3	N/A	I.5	7.5.2, 7.5.6.1
G.3.b	7.1.5.1	I.7	7.5.8, 7.6.3, 7.6.4
H.1	7.1.3, 7.1.4	I.9	7.5.8, 7.6.3
H.2	7.1.5	I.10	7.5.6.1, 7.6.6
H.5	7.5	J.10.a	7.5.6.1, 7.6.3, 7.6.4
H.5.a	7.5	J.10.c	7.4
H.5.b	7.5.3, 7.5.4, 7.5.5, 7.5.6, 7.5.6.1, 7.5.8, 7.5.10	K.5.a and b	7.5.8, 7.8.1
H.5.c	7.5.4, 7.5.10, 7.5.11	K.7	7.1.6, 7.8.1
H.5.d	7.5.9	L.2	7.8.2
H.6.a	7.6.1, 7.6.2	L.4	7.7.12

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8. MAINTAINING EMERGENCY PREPAREDNESS

The DCPD emergency preparedness program consists of:

- Personnel training
- Participation in scheduled drills and exercises
- Regular Emergency Plan review and evaluation by company specialists and PG&E management.

The Chief Nuclear Officer is the individual charged with overall authority and responsibility for emergency preparedness planning and training of Company emergency response personnel for DCPD. The administrative duties of managing the routine personnel training and updating the Plan, its appendices and the associated procedures are delegated to the Emergency Planning Manager. The Emergency Planning Manager is assigned the collateral duty of offsite emergency planning coordination with local government agencies. In this capacity, he provides support to training programs involving non-company support agencies.

8.1 TRAINING OF PLANT STAFF PERSONNEL

Plant personnel participate in a program of lectures, demonstrations, written assignments, Computer Based Training, and drills designed to familiarize them with fire protection and emergency procedures, and radiation protection principles. First aid techniques are offered and made available to those site personnel requesting it. Except as noted, courses are conducted by qualified plant personnel. At least once each calendar year, each member of

the Emergency Preparedness staff is involved in training/professional development activities.

8.1.1 General Employee Training

All personnel receive instruction on the fundamentals of radiation protection, emergency signals and response, and site rules and regulations.

Additional instruction, as required based upon level of access, is provided in the basics of quality control, fire protection, industrial safety and contamination control, to those individuals who will be granted plant protected/vital areas access. Requalification is required on an annual basis for those individuals permitted protected/vital area access.

8.1.2 Emergency Plan Training

Emergency Plan training is incorporated into everyone's training program at the appropriate level. This training includes descriptions of the emergency categories, emergency response organization, facilities, and extent of emergency response.

Personnel assigned to specific emergency response organization positions receive additional, specialized radiological Emergency Plan training. This instruction is advanced, task specific training, designed to provide each site emergency organization position with the skills/knowledge required for the performance of emergency response tasks.

The positions in the site emergency response organization include the following categories:

- Coordinators of the response organization (Site Emergency Coordinators)
- Personnel responsible for accident assessment (Radiological Advisor) Radiological monitoring teams and radiological analysis personnel (Health Physics Technicians)
- Security (Security Advisor, Security Force)
- Repair and damage control/correctional action teams (OSC Director)
- Personnel responsible for transmission of emergency information and instructions (ENS Communicator, Communications Coordinator)

Re-qualification is required on an annual basis for those personnel with specific assignments in the emergency response organization.

8.1.3 Emergency Operating Procedures

CFHs, plus selected members of the engineering staff, receive training under the provisions of NRC 10CFR 50.120 requirements. This instruction includes plant systems, operating practice, procedures and experience, and training for normal, transient and emergency operation of the plant. Re-qualification is required on an annual basis.

8.1.4 Fire Protection

In addition to the general fire protection training provided to individuals as part of General Employee Training, members of the plant Fire Brigade receive instruction in firefighting tactics, procedures and practical firefighting as part of the Fire Brigade and Emergency Response Training Program, in accordance with Fire Protection Program requirements.

8.1.5 First Aid and Accident Prevention

The first aid and accident prevention program is an integral part of Company activities at DCP. First aid training includes cardiopulmonary resuscitation instruction for requesting plant employees. Accident prevention meetings are conducted on a continuing basis for plant employees. New employees receive an industrial safety orientation program.

8.1.6 Retraining

Retraining is required, on an annual basis, for those personnel with emergency response assignments. Participation in drills and exercise may satisfy some course retraining requirements if a person's performance is satisfactory.

8.2 TRAINING OF OFFSITE PERSONNEL

8.2.1 Corporate Support Personnel

Corporate support personnel are assigned emergency functions which are extensions of their regular duties and minimal training is required. Where persons may be required to fulfill new or unique tasks, special training will be provided as discussed in the PG&E Corporate Emergency Plan.

8.2.2 Non-Company Support Agencies

The development of training programs for individuals from offsite agencies is primarily the responsibility of the agency involved. This is particularly true in their areas of technical competence. The Company provides supplemental training on radiation protection, offsite monitoring, and other topics related to the Emergency Plan for agencies that require and request it. Normally this training will be scheduled on an annual basis. Examples of these programs include:

- 1) Company personnel contact local support services personnel, such as the County Emergency Services Coordinator, Sheriff, Marian and French Hospitals, San Luis Ambulance, and the CALFIRE/County Fire on an annual basis to reaffirm the arrangements of the Emergency Plan. The need for special training programs is discussed at these meetings.
- 2) Selected physicians at Marian and French Hospitals, as well as other selected local physicians are provided training based on REAC/TS courses in the handling of radiation accidents. The physicians are provided an option to also attend classroom training at the REAC/TS facility conducted by the Oak Ridge Associated Universities.
- 3) Company or contracted personnel conduct periodic training seminars in monitoring, decontamination, and other radiation protection topics for emergency room personnel at Marian and French Hospitals.
- 4) CALFIRE personnel that respond to emergencies at DCP involving radiation hazards receive initial and annual training. The initial training includes radiation protection training and a tour to review plant layout and target hazards. Refresher training includes radiation protection training.
- 5) The Company assists the County Public Health Department to train personnel in the use of environmental radiological monitoring equipment and radiological dose assessments.

8.2.3 Public Education

Educational information is distributed to the public within the EPZ regarding warning procedures used in a major emergency and the protective actions that may have to be taken by the public.

- 1) Emergency information describing DCP, radiation and its health effects, warning procedures and protective actions is revised and distributed annually to persons residing or doing business in the Emergency Planning Zone (e.g., telephone book, calendar). Additional information describing warning procedures and protective actions is distributed to all residents in the EPZ. The public is advised that information is available separately for those without phone books.
- 2) Siren information stickers are distributed to all businesses, hotels, motels and places of public assembly within the EPZ. The stickers advise tuning into a local TV or radio station if a steady siren sounds for 3 to 5 minutes.
- 3) When requested, trained spokespersons present information on warning procedures and protective actions to civic and other groups throughout the Emergency Planning Zone.
- 4) Information on warning procedures and protective actions are presented to key groups within the Emergency Planning Zone.

Those businesses and organizations accommodating transient populations are provided with siren information stickers. Signs telling what to do if sirens sound have been posted in parks and scenic locations within the EPZ.

- 5) News media staffs (Editors, reporters, newsroom personnel, etc.) are offered special programs annually to acquaint them with the power plant and its characteristics, emergency plans, radiation and radioactive effects and points of contact for public information releases in an emergency.
- 6) Copies of printed material are available at the PG&E district office, the PG&E Energy Education Center, and the SLO County Office of Emergency Services.

8.3 DRILLS AND EXERCISES

Periodic drills and exercises involving both onsite and offsite emergency organizations are conducted to provide assurance that a high level of familiarity with the Emergency Plan is maintained and to expose any weakness in its execution. Drills are conducted to maintain emergency response skills and to update skills when modifications to the Emergency Plan or equipment require. During drills, if appropriate, on-the-spot correction of incorrect performance is made and demonstration of the proper performance offered by the instructor.

The nuclear generation vice president along with other key supervisory personnel from both the plant staff and other participating offsite organizations is responsible for planning and scheduling drills and exercises. Following the drill or exercise, observers and principal participants from all agencies involved will meet to critique emergency response. Whenever drills or exercises involve participation of offsite agencies, particular emphasis will be placed on the review of the coordination between the Onsite Emergency Organization and communication links and notification procedures of offsite emergency organizations.

8.3.1 Drills

Emergency response capabilities are maintained during the interval between biennial exercises by conducting drills. During these drills, activation of all of the ERFs (TSC, OSC, EOF, and JIC) is not required, and instruction is permitted. County and State agencies may participate in these drills.

A drill is a supervised instruction period aimed at testing, developing and maintaining skills in a particular operation. Specifically, drills are intended to test the capability to respond and perform assigned emergency functions. Drills can be combined for actual execution, i.e., a Medical Drill or Health Physics Drill may be combined with a full-scope drill.

1) Communication Drills

- a) Communications with San Luis Obispo County Sheriff and State of California OES response centers will be tested at least monthly.

Routine telecommunication checks from the Control Room are conducted with the County Sheriff's office and State OES on a weekly basis in addition to the communications drill.

- b) Communications between applicable DCPD emergency facilities and field assessment teams will be tested annually.
- c) Communications between applicable DCPD emergency facilities and the Corporate Emergency Operations Center will be tested annually.

2) Fire Drills

Fire drills are conducted in accordance with Fire Protection Program requirements.

3) Medical Emergency Drills

A medical emergency drill involving a simulated contaminated individual who is transported by ambulance to a medical facility will be conducted annually.

4) Radiological Monitoring Drills

A plant environs and radiological monitoring drill will be conducted annually. This drill will include collection and analysis of environmental sample media (e.g., water, vegetation, soil and air) and provisions for communication and record keeping.

5) Health Physics Drills

Health Physics drills will be conducted semi-annually which involve response to, and analysis of, simulated elevated airborne and liquid samples and direct radiation measurements in the environment.

6) Ingestion Pathway Zone (IPZ) Drills

At least once every exercise cycle, an IPZ drill will be conducted with California State participation.

7) Hostile Action Based (HAB) Drill

At least once every exercise cycle, an HAB drill will be conducted with offsite, including state and country, participation.

8) Augmentation Drill (ERO Response and Facility Activation)

ERO augmentation shall be demonstrated as part of the biennially evaluated exercise.

9) Off-hours Drill

An off-hours drill, between 6:00 p.m. and 4:00 a.m., shall be conducted at least once per eight-year cycle.

10) Unannounced Drill

Some drills and exercises should be unannounced.

8.3.2 Exercises

1) An exercise is an event testing the integrated capability, and a major portion of the basic elements, existing within emergency preparedness plans and organizations.

2) Full-scope team drills that involve County and State participation meet the criteria for an "exercise" as defined in NUREG 0654.

The participation of State and local governments in an emergency exercise is not required to the extent that the applicant has identified those governments as refusing to participate. In such cases, an exercise shall be held with the applicant or licensee and such governmental entities as elect to participate in the emergency planning process.

3) An evaluated exercise will be conducted biennially. In the evaluated exercise, County and state personnel and resources will be mobilized to verify the adequate capability to respond to an accident scenario. Evaluated exercises shall include a Site Area Emergency or General Emergency classification.

The evaluated exercise will be evaluated by the NRC and FEMA sponsored observers and evaluators. The scenario for the evaluated exercise shall be submitted to the NRC per 10 CFR 50.4 for review and verification at least 60 days prior to the exercise as well as to FEMA (when applicable).

- 4) The scenario should be varied from year to year such that all major elements of the plans and preparedness organizations are tested within an eight-year period. This will include provisions for an off-hours exercise/drill. Some exercises/drills should be unannounced.

Drill and exercise scenarios shall be conducted in a manner to provide reasonable assurance that anticipatory responses will not result in preconditioning of participants. Scenarios shall include a wide spectrum of radiological releases and events, including hostile action.

- 5) Exercises shall provide the opportunity for ERO teams to demonstrate key skills specific to emergency response duties. Additionally, in each eight calendar year exercise planning cycle, content of scenarios shall vary to provide the opportunity for the ERO to demonstrate proficiency in the key skills necessary to respond to the following scenario elements:
 - Hostile action directed at the plant site
 - No radiological release or an unplanned minimal radiological release that does not require public protective actions
 - An initial classification of or rapid escalation to a Site Area Emergency or General Emergency
 - Implementation of strategies, procedures, and guidance developed under § 50.54(hh)(2)
 - Integration of offsite resources with onsite response
- 6) Remedial exercises may be required if the Emergency Plan is not satisfactorily tested during the biennial exercise, such that the NRC, in consultation with FEMA, cannot:
 - a) Find reasonable assurance that adequate protective measures can be taken in the event of a radiological emergency or,
 - b) Determine that the ERO has maintained key skills specific to emergency response.

8.3.3 Scenario Development

Scenarios for exercises and drills are to be varied to cover all elements of the plans and their implementing procedures and to train the response organization. Federal documents provide guidance on the time-of-day, weather, frequency, free-play flexibility and pre-announcement criteria to be imposed.

As a minimum, each event scenario shall include the following:

- 1) The basic objectives of each drill and exercises and appropriate evaluation criteria;
- 2) The dates, time period, places and participating organizations;
- 3) The simulated events;
- 4) A time schedule of real and simulated initiating events;
- 5) A narrative summary describing the conduct of the exercises or drills to include such things as simulated casualties, offsite fire department assistance, rescue of personnel,

use of protective clothing, deployment of radiological monitoring teams, and public information activities, and

- 6) A description of the arrangements for and advance materials to be provided to official observers.

Scenarios are to be developed by the Company in conjunction with the County authorities. In each case, they are to be developed and administered by third parties to the actual exercise. Scenarios for exercises which are to receive FEMA evaluation and approval require prior approval by the Federal Regional Advisory Committee, Region IX.

8.4 EMERGENCY PLAN AND PROCEDURES

8.4.1 Review and Updating

The DCPP Emergency Plan is reviewed and updated annually. The intent of the review is to update and improve the Plan based on plant changes, drills and exercises results, and assess onsite capabilities. Based on that review, the associated implementing procedures are updated as necessary. Following any revisions to the Emergency Plan, all participating agencies in the total emergency organization which are affected by the revisions are apprised of the changes through the distribution provided by the document control system. The Emergency Planning Manager maintains documentation substantiating the annual review and updating.

Independent assessments of the various aspects of the emergency preparedness program are conducted every twelve months in accordance with 50.54(t). The independent assessment includes, but is not limited to, the Emergency Plan, implementing procedures, training, drills, exercises, procedures, readiness testing, equipment, and interfaces with State and Local organizations. The results of the independent assessment, along with recommendations for improvements, are documented and reported to DCPP management. The independent assessment report involving the evaluation for adequacy of interface with State and Local governments is made available to those governments. The results are considered by management in modifying aspects of the Plan. In addition, telephone numbers referenced in the DCPP EPIPs and the Nuclear Emergency Response Communications Directory are reviewed quarterly to ensure up-to-date contact numbers and notification lists.

Changes are made in accordance with 50.54(q) and a record of all changes to the Emergency Plan determined to reduce its effectiveness are retained for the life of the plant.

8.4.2 Document Control

The Emergency Plan is included in the plant manual, Volume 11. Revisions to the Plan will be controlled and distributed by the plant staff in accordance with plant document control procedures. This process requires review by the Plant Staff Review Committee and approval of the nuclear generation vice president or Station Director. Changes will be issued periodically in the same manner to incorporate important modifications and information pending the issuance of a new revision.

Documentation of the activities required for Emergency Plan maintenance shall be in accordance with the standard practices defined by the Administrative Procedures, Volume 1 of the Plant Manual.

Changes and revisions will be issued to holders of Controlled Copies according to the distribution list maintained by Procedure Services.

8.5 IMPLEMENTING PROCEDURES

Each new Emergency Plan implementing procedure or procedure revision shall be reviewed, approved, maintained, and rescinded in accordance with plant administrative procedures.

Approval of new Emergency Plan implementing procedures or revisions shall be by the Station Director, or his designee. If approved by a designee, the designee shall be knowledgeable in the procedure's subject area and shall meet the experience requirements of ANSI/ANS 3.1-1978 for Plant Managers.

8.5.1 Temporary Changes to Procedures

Temporary changes to Emergency Plan implementing procedures may be made in accordance with plant administrative procedures.

8.6 LETTERS-OF-AGREEMENT

Written agreements are in place for local participating organizations that identify the emergency measures to be provided and when assistance will be requested (including during hostile actions). Letters-of-agreements, memorandum-of-understandings and legal documents contain, as a minimum; a description of responsibility, when the support or service will be provided, and how the support or service will be initiated. Local participating emergency organizations with which a letter-of-agreement has been signed will be contacted on an annual basis to certify continuing support of the agreement. Emergency support organizations that have an approved contract will be contacted prior to contract expiration. Contracts will be reviewed on an annual basis to ensure they are current.

In general, letters-of-agreements are appropriate for organizations that are expected to respond in a declared state of emergency. To be specific, if the DCPD Emergency Response Plan or any of its appendices identifies an organization from which a particular service or response is required, then documentation must exist that there is prior recognition by both parties that a prompt, effective response will be initiated. Concurrently, documentation must clearly point out the degree of emergency preparedness that response organization must continuously maintain in order to be capable of carrying out the obligation when the mobilization request occurs.

The letter-of-agreement should have as a primary purpose the identification of points of contact and telephone numbers for requesting assistance and verifying requests.

8.7 OFFSITE AGENCY SUPPORT DOCUMENTS

- 1) Offsite agency support documents shall be maintained. These documents may include Emergency Response Plans from agencies such as:
 - San Luis Obispo County
 - State of California
 - Westinghouse

- 2) Other documents may include Emergency Procedures or Protocols from agencies such as:
 - French Hospital
 - INPO
 - U.S. Coast Guard
- 3) Changes to Offsite agency support documents are not controlled by DCPD and do not necessarily constitute a change to the DCPD Emergency Plan.
- 4) Changes to Offsite agency support documents will be reviewed for impact to the DCPD Emergency Plan.

8.8 EMERGENCY EQUIPMENT AND SUPPLIES

To ensure the availability and operational readiness of emergency equipment and supplies, provisions have been made for performing periodic maintenance, calibration and inventory checks of the equipment. Equipment that is only used in the event of an emergency, such as emergency kits, is inspected on a quarterly basis and after each use in compliance with procedures. Sufficient reserves exist to replace equipment removed from emergency kits for calibration or repair. Other equipment which is used during normal plant operation and may be used in an emergency, such as radiation detection instruments and communications networks, is included in plant surveillance testing and preventive maintenance programs. Additionally, inventories of expendable supplies are maintained in an onsite warehouse and are replenished when minimum levels are reached, thus maintaining an adequate supply at all times.

8.9 CROSS REFERENCE TO NUREG-0654

NUREG 0654	DCPD Emergency Plan	NUREG 065 4	DCPD Emergency Plan
A.3	8.6	N.3.a to f	8.3.3
B.9	8.6	N.4	8.3
F.3	8.8, 8.3.1	N.5	8.3
G.1.a to d	8.2.3	O.1	8.1, 8.2
G.2	8.2.3	O.1.a	8.2.2
G.5	8.2.3	O.2	8.1, 8.3
H.9	8.8	O.3	8.1.5
H.10	8.8	O.4.a to j	8.1, 8.2, 8.2.2
L.2	8.1.5	O.5	8.1, 8.2, 8.2.2
N.1.a and b	8.3.2	P.1	8.1, 8.2, 8.2.2
N.2.a	8.3.1	P.2	8
N.2.b	8.1.4, 8.3.1	P.4	8.4, 8.6
N.2.c	8.3.1	P.5	8.4.2
N.2.d	8.3.1	P.9	8.4.1
N.2.e	8.3.1	P.10	8.3.3.6

9. RECOVERY

This section provides guidance for the operational Recovery Phase following plant emergency declaration and response but prior to the return to normal operations. The emergency phase, in which an ECL is declared at the Alert classification or higher, is addressed by the G-series and EF-series Emergency Plan Implementing Procedures. When the emergency is terminated and the plant no longer requires an Alert or higher emergency classification for the purposes of offsite notification, there may still remain recovery tasks to be performed outside of normal operations. This section addresses this transitional Recovery Phase.

9.1 RECOVERY PHASE

The Recovery Phase commences at the time at which an emergency at the Alert or higher level has been terminated (either de-escalated to a UE or to no ECL), but before the plant has returned to normal operations. In order to enter the Recovery Phase, the plant should be in a stable condition and any real or potential radioactive releases limited to less than license limits without the likelihood of again increasing beyond those limits. There should be little probability that the accident will recur or that a new, declarable event (Alert or higher) occur as a result of the previous emergency or response actions. The emergency phase goals of the ERO for events at the Alert or higher level include the list below. Upon entering the Recovery Phase, these goals should have been mostly or wholly attained.

- 1) Bring the plant to a stable condition.
- 2) Mitigate any real or potential radioactive releases.
- 3) Minimize hazards to plant personnel.
- 4) Work with offsite agencies to minimize hazards to the public.

During the Recovery Phase, while the Emergency Director is still in control, management of the event is shifting from Emergency Response Organization as augmented by the incident Technical Review Group, Event Investigation Team, and, as necessary, the Outage Coordination Center. Use is made of these normal programs of widespread familiarity that deal with non-emergency problems in order to maximize the efficiency and effectiveness of the transition phase and minimize potential confusion and error.

The Recovery Phase is in turn terminated by declaration of the ED, generally at the time they determine normal operational programs are sufficient to close out the event, and their continuous personal control is no longer required at or near the site. The Recovery Phase goals for returning the plant to normal operations should include the following:

- 1) Terminate the emergency declaration.
- 2) Determine which ERO positions will initially be retained in the Recovery Phase.
- 3) Initiate the Root Cause process, including the Event Response Plan as a blueprint for Recovery activities.

- 4) Activate the Recovery Organization for significant plant material restoration.
- 5) Complete the transition to fully normal plant (non-ERO) management.
- 6) Assist the State as requested to determine population dose.

9.2 EXTRAORDINARY EVENT RECOVERY

In the more probable accident scenarios, the Recovery Phase would be expected to begin upon the termination of the emergency phase (downgrade of an event from the Alert level or above to an UE or to no ECL).

However, there is a possibility in the case of an extraordinary event that the Recovery Phase start may be appropriate while the plant still technically exceeds the criteria for an Alert or higher ECL, due to plant conditions or release (or potential release) status.

In such cases, the ED may start the Recovery Phase, either concurrent with or after terminating the emergency phase for offsite notification purposes, as agreed with the County, State, and NRC authorities.

9.3 RESPONSIBILITY AND ORGANIZATION

- 1) The ED shall determine when the emergency event shall be terminated (downgraded to a UE or to no ECL). As appropriate in the case of an extraordinary event, the ED shall determine (as agreed by County, State, and NRC officials) when the Recovery Phase should be commenced prior to the end of the emergency phase, or when the emergency phase may be terminated for offsite notification purposes and the Recovery Phase begun, though the plant is technically in an ECL at the Alert or higher level. The ED shall then direct the activities of the Recovery organization until he declares the Recovery Phase complete. At this time his position will be deactivated and general site area control will revert to the Plant Manager, and the use of EIPs will no longer be necessary to close out the event.
- 2) The Recovery Organization will consist of the normal plant management organizations as assisted by the event-related Technical Review Group and Event Investigation Team and as overlaid by remaining elements of the Emergency Response Organization determined necessary by the ED. These ERO positions will in time be deactivated prior to the ED declaring the Recovery Phase complete.
- 3) The structure and function of corporate positions during the Recovery Phase in the PG&E Emergency Operations Center (General Office) are addressed in the Corporate Emergency Plan.

9.4 CROSS REFERENCE TO NUREG-0654

NUREG 0654	DCPP Emergency Plan	NUREG 0654	DCPP Emergency Plan
B.7.a to d	9	M.3	9.1
M.1	9	M.4	9.16)
M.2	9.1		

10. REFERENCES

- 1) Nuclear Regulatory Commission, Emergency Planning, Final Rule, Title 10, Part 50 of the Code of the Federal Register (10 CFR 50), Appendix E, August 19, 1980.
- 2) Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, NUREG-0654/FEMA-REP-1, Rev. 1, 10/80.
- 3) Defueled Safety Analysis Report (DSAR), Diablo Canyon Power Plant.
- 4) Diablo Canyon Power Plant Development of Evacuation Time Estimates, KLD Engineering, P.C., November 2012.
- 5) Alert and Notification System (ANS) Design Report Early Warning System (EWS), Revision 4.
- 6) Manual of Protective Action Guides and Protective Actions for Nuclear Accidents, EPA-400-R-92-001, Environmental Protection Agency (EPA), October 1991.
- 7) Memoranda-of-Understanding (MOU) between the NRC and FEMA, Federal Register Vol. 45, Number 243, April 18, 1985/Notices.
- 8) Federal Radiological Emergency Response Plan, November 8, 1985.

PROCEDURES

This appendix lists:

- Procedures that implement the DCPPE Emergency Plan.
- Cross-reference of Diablo Canyon Power Plant Emergency Planning Procedures to the NUREG-0654 planning standards.

A. EMERGENCY PLAN IMPLEMENTING PROCEDURES

A.1 GENERAL

- EP G-1 Emergency Classification and Emergency Plan Activation
- EP G-2 Interim Emergency Response Organization
- EP G-3 Emergency Notification of Off-Site Agencies
- EP G-4 Assembly and Accountability
- EP G-5 Evacuation of Non-Essential Site Personnel

A.2 ORGANIZATION

- EP OR-3 Emergency Recovery

A.3 RADIATION PROTECTION & ASSESSMENT

- EP RB-1 Personnel Dosimetry
- EP RB-2 Emergency Exposure Guides
- EP RB-3 Stable Iodine Thyroid Blocking
- EP RB-4 Access to and Establishment of Controlled Areas under Emergency Conditions
- EP RB-5 Alternate Personnel Decontamination Facilities

A.4 RADIATION PROTECTION & ASSESSMENT (IMMEDIATE OPERATOR RESPONSE)

- EP RB-8 Instructions for Field Monitoring Teams
- EP RB-10 Protective Action Recommendations
- EP RB-12 Plant Vent Iodine and Particulate Sampling During Accident Conditions
- EP RB-16 Operating Instructions for the EARS Computer Program
- EP RB-17 Operation Instructions for QuickDose

A.5 RADIATION PROTECTION & ASSESSMENT (IMMEDIATE OPERATOR RESPONSE)

- EP R-2 Release of Airborne Radioactive Materials Initial Assessment
- EP R-3 Release of Radioactive Liquids

A.6 EQUIPMENT AND FACILITIES

- EP EF-1 Activation and Operation of the Technical Support Center
- EP EF-2 Activation and Operation of the Operational Support Center

- EP EF-3 Activation and Operation of the Emergency Operations Facility
- EP EF-4 Activation of the Off-Site Emergency Laboratory
- EP EF-9 Backup Emergency Response Facilities
- EP EF-10 Activation and Operation of the Joint Information Center
- EP EF-11 Alternate Emergency Response Facilities/Incident Command Post (ICP)

A.7 TRAINING

- OM10.ID1 Maintaining Emergency Preparedness
- OM10.DC1 Emergency Preparedness Drills and Exercises

B. CROSS REFERENCE OF PROCEDURES TO NUREG-0654

NUREG-0654	PROCEDURES	NUREG-0654	PROCEDURES
A.1.d	G-2, EF-1, EF-3	F.2	EF-3, CP M-13
A.4	G-2, EF-1, EF-3	F.3	OM10.DC1
B.1	G-2, G-3	G.1.a to d	OM10, OM10.ID1
B.2	G-2	G.2	OM10, OM10.ID1
B.3	G-2, EF-1, EF-3	G.3.a	EF-10
B.4	G-2, EF-1, EF-3, RB-10	G.3.b	EF-3, EF-10
B.5	G-2, EF-1, EF-2, EF-3, EF-4, EF-10	G.4.a	EF-3, EF-10
B.6	G-2, G-3, EF-1, EF-3	G.4.b	EF-10
B.8	EF-1, EF-3	G.4.c	EF-10
B.9	AWP EP-007, CP M-13	G.5	OM10.DC1
C.1.a - c	G-2, EF-1, EF-3	H.1	EF-1, EF-2
C.2.b	EF-3, EF-11	H.2	EF-3
C.3	EF-4	H.4	G-2, EF-1, EF-2, EF-3, EF-10
C.4	EF-1, EF-3, AWP EP-007	H.5	OM10.ID6
D.1 & D.2	G-1	H.5.a	CP M-4, CP M-5
E.1	G-3	H.5.b	R-2, R-3, RB-8, RB-12
E.2	G-2, G-3	H.5.c	OP AP-22
E.3	G-3, RB-10	H.6.a	CP M-4, CP M-5
E.4.a to n	G-3, RB-10	H.6.b	R-2, R-3, RB-1, RB-8, RB-12
E.6	G-3, MT-43	H.6.c	RB-8, EF-4
E.7	EF-10	H.7	EF-4
F.1.a	G-2, G-3	H.8	RB-17
F.1.b	G-2, G-3	H.9	EF-2
F.1.c	G-2, G-3	H.10	MT-21, 25, 26, 27, 28, 29, 31,

NUREG-0654	PROCEDURES	NUREG-0654	PROCEDURES
			35, 36, 43, 50, RCP EM-16
F.1.d	G-2, G-3, EF-1, EF-3, RB-8	H.11	RB-8, CP M-13, MT-21
F.1.e	G-2, G-3	H.12	EF-4, RB-8
F.1.f	G-3, EF-1, EF-3	I.1	G-1
I.2	R-2, RB-16, RB-17	L.1	CP M-13, MT-21
I.3.a	R-2, R-3, RB-16, RB-17	L.2	CP M-13
I.3.b	R-2, RB-16, RB-17	L.4	CP M-13
I.4	RB-17	M.1	OR-3
I.5	R-2, RB-16, RB-17	M.2	OR-3
I.6	R-2, RB-16, RB-17	M.3	OR-3
I.7	EF-4, RB-8	M.4	RB-16, RB-17, OR-3
I.8	EF-4, RB-8	N.1.a and b	OM10.DC1
I.9	EF-4, RB-8	N.2.a	OM10.DC1, MT-50
I.10	RB-8, RB-10, RB-16, RB-17	N.2.b	OM10.DC1
J.1.a to d	G-2, G-4, EF-1	N.2.c	OM10.DC1
J.2	G-5, RB-5	N.2.d	OM10.DC1
J.3	G-5, RB-5	N.2.e	OM10.DC1
J.4	G-5, RB-5	N.3.a to f	OM10.DC1
J.5	G-4	N.4	OM10.DC1
J.6.a	EF-1, EF-2	N.5	OM10.DC1
J.6.b	EF-1, EF-2	O.1	OM10.DC1, OM10.ID1
J.6.c	RB-3	O.1.a	OM10.DC1, OM10.ID1
J.7	G-3, RB-10	O.1.b	OM10.DC1, OM10.ID1
J.8	RB-10	O.2	OM10.DC1, OM10.ID1
J.10.a	RB-8, RB-10, G-5	O.3	OM10.DC1, OM10.ID1
J.10.b	RB-10, Appendix E	O.4.a to j	OM10.DC1, OM10.ID1
J.10.c	G-3, RB-10	O.5	OM10.DC1, OM10.ID1
J.10.m	RB-10, Appendix E	P.1	OM10, OM10.ID2
K.1.a to g	RB-2	P.2	OM10
K.2	RB-2	P.3	OM10.ID2
K.3.a and b	RB-1	P.4	OM10.ID2, AWP EP-007
K.5.a and b	EF-1, EF-2, RB-5	P.5	OM10.ID2
K.6.a to c	RB-4, RB-5, EF-1, EF-2, OR-3	P.9	OM10
K.7	RB-5	P.10	MT-25

C. CROSS REFERENCE TO NUREG-0654

This appendix implements NUREG-0654 Part II, P.7.

B. OFFSITE AGENCY SUPPORT DOCUMENTS

The following plans and procedures, which relate to response to an emergency at DCP, are provided by the associated offsite agencies. These documents are maintained by Emergency Planning. These documents are reviewed for any impact to the DCP Emergency Plan.

- San Luis Obispo County / Cities Nuclear Power Plant Emergency Response Plan
- State of California Nuclear Power Plant Emergency Response Plan
- Westinghouse Electric Company Emergency Response Plan
- DCP Emergency Response Plan Implementing Procedures Listing
- French Hospital Emergency Response Plan
- National Response Framework Nuclear/Radiological Incident Annex
- INPO's Role in an Emergency
- USCG Procedures to be Followed Upon Notification of an Emergency at Diablo Canyon Nuclear Power Plant

B.1 CROSS REFERENCE TO NUREG-0654

This appendix implements NUREG-0654 Part II, C.1.a, C.1.b, C.1.c, and P.6.

The following NUREG-0654 Part II planning standards are not applicable to the DCPPE Emergency Plan.

- A.2.a
- A.2.b
- C.2.a
- D.3
- D.4
- E.5
- H.3
- I.11
- J.9
- J.10. d to l
- J.11
- J.12
- K.4
- L.3
- O.1.b

Diablo Canyon Power Plant



Post-Shutdown On-Shift Staffing Analysis Report

John R. Brown
Prepared By

John R. Brown

03/12/2021

Date

Monica Ray

Reviewed By

Monica Ray

3/12/21

Date

Diablo Canyon Power Plant On-Shift Staffing Analysis

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Diablo Canyon Power Plant On-Shift Staffing Analysis

Introduction

The NRC has identified three levels for decommissioning site emergency plans. The first level, Post-Shutdown Emergency Plan (PSEP), is entered after the NRC docket the licensee's certifications that reactor operation has ended with no intent to restart. The second level, Permanently Defueled Emergency Plan (PDEP), is entered at least 16 months after spent fuel decay in the Spent Fuel Pool (SFP). The third level, ISFSI Only Emergency Plan (IOEP), is entered after all spent fuel has been removed from the SFP and relocated to the ISFSI.

10CFR50 Appendix E, IV.A.9, requires performance of a detailed on-shift staffing analysis to ensure on-shift staffing is adequate to perform critical functions until relieved by the augmented Emergency Response Organization (ERO). The NRC in the published staff guidance (Reference 2) endorsed NEI 10-05 as an acceptable means of performing the required staffing analysis.

The NRC has published draft guidance (Reference 4 and 5) that details the requirements for operating plants that are entering decommissioning. This guidance establishes the need to conduct an on-shift staffing analysis to ensure that the post-shutdown phase on-shift staff can carry out their assigned emergency response functions until the augmenting ERO arrives. The results of the on-shift staffing analysis, using NEI 10-05 guidance, for Diablo Canyon Power Plant (DCPP) post-shutdown condition are included in this report. These results were used to inform the minimum on-shift and augmented ERO staffing recommendations for the Post-Shutdown Emergency Plan (PSEP). This report does not include a Beyond Design Basis (BDB) FLEX evaluation which will be addressed in an NEI 12-01, Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities, equivalent report, if applicable.

References

1. 10CFR50 Appendix E
2. NSIR/DPR-ISG-01, Interim Staff Guidance, Emergency Planning for Nuclear Power Plants
3. NEI 10-05, Revision 0, Assessment of On-Shift Emergency Response Organization Staffing and Capabilities
4. NSIR/DPR-ISG-02, Interim Staff Guidance, Emergency Planning Exemption Requests for Decommissioning Nuclear Power Plants
5. Draft Regulatory Guide 1346, Proposed new Regulatory Guide 1.235, Emergency Planning for Decommissioning Nuclear Power Reactors
6. Draft Regulatory Guide 1347, Proposed Revision 2 to Regulatory Guide 1.184, Decommissioning of Nuclear Power Reactors
7. Diablo Canyon Power Plant Emergency Plan, Proposed PSEP Staffing Table, DCPP On-Shift ERO Staffing
8. Diablo Canyon Power Plant FSAR Chapter 15

Executive Summary

A detailed staffing analysis, performed in accordance with NEI 10-05, was conducted August 28, 2018, to document the adequacy of minimum PSEP on-shift staffing for DCPP as required by NRC staff guidance

Diablo Canyon Power Plant On-Shift Staffing Analysis

and in accordance with 10CFR50 Appendix E requirements. An additional staffing analysis, included in this report, to incorporate a fuel handling accident scenario was conducted February 16, 2021.

The minimum staff described in the DCPPE Emergency Plan, Proposed PSEP Staffing Table, was used to perform the on-shift staffing analysis. Table 1 lists the on-shift positions as identified in the proposed PSEP on-shift staffing table.

NRC staff guidance directs the scenarios that must be used to demonstrate the adequacy of on-shift staffing to perform required functions for event mitigation, radiation protection response, firefighting, and Emergency Plan functions. Those scenarios include specific design basis accidents as described in the FSAR as well as specific scenarios defined in the Staff Guidance documents. Identification of these scenarios is the first phase of the NEI 10-05 process. For PSEPs, the spectrum of credible accidents and operational events requiring a response from the ERO is reduced since design basis accidents are no longer applicable. The principal public safety concern applicable to a PSEP involves the potential radiological risk associated with the storage of spent fuel on site in the SFP. The reactor, reactor coolant system, and reactor support systems are no longer in operation and have no function related to the storage of spent fuel. Therefore, postulated accidents involving a failure or malfunction of the reactor, reactor coolant system, or reactor support systems are no longer applicable. Table 2 identifies the scenarios that were required to be considered for evaluation.

The next phase required of NEI 10-05 requires a dedicated team, using tabletop techniques, to evaluate the scenarios for conflicts between the functional areas that must be resolved by detailed procedural analysis. For those scenarios where no conflicts are identified in the specified areas no further action is required. Appendix B, Phase II Event Analysis Tables, identifies the results of this evaluation and any scenarios that require detailed analysis due to conflicts in response actions.

The information from the on-shift staffing analysis was used to inform the recommendation for the minimum on-shift staff required to support the PSEP. An on-shift staffing analysis is not required for an PDEP or IOEP.

Conclusion

The minimum staff identified in the Diablo Canyon Power Plant Emergency Plan, Proposed PSEP Staffing Table, is adequate to respond to the scenarios identified in the regulations until relieved by the augmented ERO. The analysis showed that a sufficient number of on-shift personnel are available to respond to analyzed events until augmented by the ERO within 60 and 90 minutes after declaration.

Diablo Canyon Power Plant On-Shift Staffing Analysis

Table 1
Diablo Canyon Power Plant (DCPP) On-Shift Staffing Table

DCPP Proposed Post-Shutdown On-Shift Staffing	
Position	On-Shift
Shift Supervisor/Certified Fuel Handler	1
Certified Fuel Handler (CFH)	1
Non-Certified Operators (NCO)	3
Chemistry & RP Technician	2
Fire Department	5
Total:	12
Security	Sec plan
First Aid and Rescue ^{Note 1}	2

Note 1 Two Fire Department personnel are assigned First Aid and Rescue responsibility as a collateral duty.

Diablo Canyon Power Plant On-Shift Staffing Analysis

Table 2
NEI 10-05 Appendix A
Analyzed Events and Accidents ^{Note 1}

Event #	Event Type	Summary Description of Event	Reference Document(s)	Event ECL	Analysis Required?
1.a	DBA	Fuel Handling Accident – Containment Building	FSAR 15.4.5.3.1	Alert	No Note 2
1.b	DBA	Fuel Handling Accident – Fuel Handling Area/Building	FSAR 15.4.5.3.2	Alert	Yes
2	ISG-01	Land and/or waterborne hostile action directed against the Protected Area by a hostile force (DBT)	ISG-01 IV.C	Site Area Emergency	Yes
3	ISG-01	Verifiable information that the plant is in the flight path of a track of interest (TOI) with an ETA of 30 minutes or less	ISG-01 IV.C	Alert	Yes
4	ISG-01	Control room fire leading to evacuation and remote operation of ASW/CCW system	ISG-01 IV.C	Unusual Event	Yes
5	ISG-02	Loss of SFP Level requiring implementation of mitigation strategies	ISG-02	Alert	Yes
6	ISG-02	Loss of SFP Level resulting in release requiring PARs	ISG-02 ISG-01 IV.C	General Emergency	Yes Note 3
	ISG-01	Station Blackout (Current Licensing Basis)	ISG-01 IV.C SBO Analysis	N/A	No Note 4
7	ISG-01	NFPA 805 Fire Response	ISG-01 IV.C	N/A	No Note 5
8	ISG-01	SAMG Response	ISG-01 IV.C	N/A	No Note 5

Note 1 – Condition IV DBA Events are no longer applicable in a Post-Shutdown condition. Reactor is defueled and supporting systems such as primary and secondary support systems are no longer required.

Note 2 – Analysis not required since the reactors are permanently defueled.

Note 3 – Event designated as proceeding un-mechanistically to GE with release exceeding Protective Action Guidelines (PAGs) and requiring Protective Action Recommendations (PARs).

Note 4 – The SBO rule is applicable only to sites with an operating license. DCPD is in a Post-Shutdown condition without an operating license; therefore, this ISG-01 requirement is no longer applicable.

Note 5 – ISG-01 requirement applicable to sites with an operating license. DCPD is in a Post-Shutdown condition without an operating license; therefore, this ISG requirement is no longer applicable.

Diablo Canyon Power Plant On-Shift Staffing Analysis

Appendix A – OSA Analysis Process

Diablo Canyon Power Plant On-Shift Staffing Analysis

A multi-disciplined team of subject matter experts from DCPD was assembled to provide input into the on-shift staffing analysis (OSA) of events identified in Table 2. This team consisted of: an SRO (Decommissioning Team/EOF Director); an RP Manager (Decommissioning Team); an OSC Director (Decommissioning Team Lead); an Assistant Fire Chief; a Decommissioning Engineering Manager (Security Lead); and Emergency Planning Staff (station and consultants). The team provided analysis support during the OSA as follows:

Table 3
On-Shift Staffing Analysis Team

Team Member	Subject Matter Expertise
Operations SRO – Decommissioning Team (EOF Director)	Abnormal Procedure (AOP) actions
	Operating Procedure actions
	Emergency Director (E-Plan) actions
	Fire response actions
	Dose Assessment actions
	Offsite Communicator actions
RP Manager	RP response actions
	Chemistry response actions
Decommissioning Team Lead (OSC Director)	Maintenance response actions
Assistant Fire Chief	Fire response actions
Decommissioning Engineering Manager (Security Lead)	Security response actions
Emergency Planning	Emergency Plan response actions
Emergency Planning Consultants	Analysis facilitation/EP Regulations

The OSA was conducted in three steps; identification of events for analysis; minimum on-shift staffing complement determination; and, a tabletop analysis of the on-shift staffing resources required for response to identified events. The results of the OSA are documented in this report.

OSA Assumptions

The following assumptions were used during the completion of the on-shift staffing analysis:

- Existing procedures were used to conduct the OSA. These procedures will be revised as needed prior to entering applicable Decommissioning Level.
- Additional resources, beyond minimum on-shift staffing, are on-site during fuel handling activities and are available as needed to support response actions.

Appendix B – OSA Event Analysis Tables

Diablo Canyon Power Plant On-Shift Staffing Analysis

On-Shift Personnel Assignments Used During OSA

Operations On-Shift Personnel Assignments

Position	Designation	Assignment
Shift Supervisor/Certified Fuel Handler	SS1	Shift Supervisor/Emergency Director
Certified Fuel Handler	CFH1	Certified Fuel Handler
Non-Certified Operator	NCO1	Unit 1 Aux/Turbine Building Operator
Non-Certified Operator	NCO2	Unit 2 Aux/Turbine Building Operator
Non-Certified Operator	NCO3	Rover Operator

Other On-Shift Personnel Assignments

Position	Designation	Assignment
Chemistry & RP Technician	CRP1	RP Support
Chemistry & RP Technician	CRP2	RP Support/In Plant Surveys
Fire Captain	FC1	Fire Department Support
Firefighter	FF1	Fire Department Support
Firefighter	FF2	Fire Department Support
Firefighter	FF3	Fire Department Support
Firefighter	FF4	Fire Department Support
Watch Commander	SEC1	Security Supervisor/Accountability
SAS Operator	SEC2	Accountability
Security Officer	SEC3	Security Officer

Diablo Canyon Power Plant On-Shift Staffing Analysis

Event #1.b Fuel Handling Accident – Fuel Handling Area/Building

Initial Conditions:

Time: Saturday @ 0300

Unit 1&2 in Post-Shutdown conditions and defueled.

Assumptions: U2 Shutdown 45 days ago, fuel movement is in progress in U2 SFP

Additional resources, beyond minimum Emergency Plan on-shift staffing requirements, are on-site to support fuel movement activities and would respond to the event as needed.

Sequence of Events:

0300 While moving a fuel element inside the U2 SFP, the grappling hooks on the SFP Handling Tool catastrophically fail and the fuel element drops damaging a number of the fuel rods

0302 Annunciator PK11-10, FHB High Radiation, is in Alarm

RM-58 and RM-59 high radiation indicated

PK11-25, Plant Vent Radioactivity, is in Alarm

2-RM-14 reading $2.6E +5$ cpm

2-RM-14R reading $2.6E +5$ cpm

FHB alarm actuates

FHB Ventilation system does not auto switch to Iodine removal mode

Plant personnel enter AR PK11-10 and PK11-25

0303 PA Announcement initiated to evacuate FHB

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 1 – On-shift Positions

Event 1.b: Fuel Handling Accident – Fuel Handling Area/Building

ECL: Alert

Line	On-shift Position	Emergency Plan Reference	Augmentation Elapsed Time (min)	Role in Table#/Line#	Unanalyzed Task?	TMS/ Action Required?
1.	Shift Supervisor/Certified Fuel Handler (SS1)	DCPP PSEP EPlan, Table 5-1	90	T5/L1 T5/L6	No	No
2.	Certified Fuel Handler (CFH1)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L1 T5/L3 T5/L9	No	No
3.	Non-Certified Operator (NCO3)	DCPP PSEP EPlan, Table 5-1	90	T5/L2 T5/L3 T5/L5 T5/L8 T5/L10 T5/L11	Yes ^{Note 1}	No
4.	Chemistry & RP Technician (CRP1)	DCPP PSEP EPlan, Table 5-1	60	T2/L2 T4/L1 T4/L4	No	No
5.	Chemistry & RP Technician (CRP2)	DCPP PSEP EPlan, Table 5-1	60	T4/L3	No	No

Notes: Although multiple functions have been identified for some positions, no conflict exists requiring further action. Performance of these functions by the identified positions is either acceptable by NEI 10-05 guidance, **OR** the functions are the same, **OR** the functions are performed sequentially without issue.

Note 1 – Communicator training needs to be revised to include guidance on completion of the NRC notification form.

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 2 - Plant Operations & Safe Shutdown

Event 1.b

Two Units - One Control Room
Minimum Operations Crew Necessary to Implement
AOPs and EOPs, or SAMGs if applicable

Applicable to Unit 2

Line	Generic Title/Role	On-Shift Position	Task Performance Validation
1.	Certified Fuel Handler	Certified Fuel Handler (CFH1)	Operations Training

Notes: See Table 2A for AOP/EOP actions

Other (non-Operations) Personnel Necessary to Implement
AOPs and EOPs, or SAMGs if applicable

Line	Generic Title/Role	On-Shift Position	Task Performance Validation
2.	Chemistry/RP Technician	Chemistry & RP Technician (CRP1)	Chemistry/RP Training

Notes: See Table 2A for AOP/EOP actions

Diablo Canyon Power Plant On-Shift Staffing Analysis

Event: 1.b

Title: Table 2A – Fuel Handling Accident – Fuel Handling Area/Building

Procedure Step/Actions			Performance Time (mins) After Procedure Implementation																					
Proc/Step	Task	Assigned Resource	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120	
AR-PK11-10, FHB High Radiation, Unit 2, Rev 9A																								
2.1.1.a.	Verify FHB alarm is initiated	CFH1	X																					
2.1.1.c.	Verify Fuel Handling Ventilation in Iodine Removal Mode	CFH1	X																					
	Align Ventilation in Iodine Removal Mode IAW OP H-7:1	CFH1	X																					
2.1.1.e	PA Announcement to evacuate FHB	CFH1	X																					
AR-PK-11-25, Plant Vent Radiation, Unit 2, Rev 11																								
2.1.3.c	Notify Chemistry & RP	CFH1	X																					
OP AP-21, Irradiated Fuel Damage, Units 1&2, Rev 10																								
1	Verify Fuel Handling activities have been suspended	CFH1	X																					
4.b RNO 3)	Perform EP R-2 Calculations	CFH1				X																		
5	Verify ventilation	CFH1		X																				
6	Notify RP to monitor radiological conditions in FHB	CFH1		X																				
	Monitor FHB radiological conditions (periodic)	CRP1		X (periodic)														X (periodic)						



Task completion time

Augmented resources available for support

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 3 – Firefighting

Event 1.b

Line	Performed By	Task Analysis Controlling Method
1.	N/A	N/A
2.	N/A	N/A
3.	N/A	N/A
4.	N/A	N/A
5.	N/A	N/A

Notes: Fire Department response not required for this event.

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 4 – Radiation Protection & Chemistry

Event 1.b

Line	Position Performing Function/Task	Performance Time Period After Event Initiation (minutes)																					
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120	
1.	In-Plant Survey (Monitor FHB – periodic) On-Shift Position: CRP1		X (Periodic)															X (Periodic)					
2.	Out of Plant Survey On-Shift Position:																						
3.	Personnel Monitoring (Fuel handlers) On-Shift Position: CRP2		X (Periodic)															X (Periodic)					
4.	Job Coverage (Fuel Handling) On-Shift Position: CRP1	X																					
5.	Dose Assessment On-Shift Position:																						
6.	Other Site-Specific RP – Describe: On-Shift Position:																						
7.	Chemistry function/task #1 – Describe: On-Shift Position: CRP1																						
8.	Chemistry function/task #2 – Describe: On-Shift Position: CRP2																						

Notes: Additional RP resources, beyond minimum E-Plan Staffing, supporting fuel handling activities are available to support emergency response actions as needed.
RCP NISP-RP.10, Radiological Job Coverage, Rev 2



Task completion time

Augmented resources available for support

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 5 – Emergency Plan Implementation

Event 1.b

Line	Function/Task	On-Shift Position	Task Analysis Controlling Method
1.	Declare the Emergency	SS1	EP/Ops Training and EP Drill Program
2.	ERO notification	NCO3	EP/Ops Training and EP Drill Program
3.	Notification and direction to on-shift staff (e.g., to assemble, evacuate, etc.)	CFH1 NCO3	EP/Ops Training and EP Drill Program
4.	Abbreviated NRC notification for DBT event	N/A	EP/Ops Training and EP Drill Program
5.	Complete State/local notification form	NCO3	EP/Ops Training and EP Drill Program
6.	Approve State/local notifications	SS1	EP/Ops Training and EP Drill Program
7.	Approve Offsite PARs	N/A	EP/Ops Training and EP Drill Program
8.	Perform State/local notifications	NCO3	EP/Ops Training and EP Drill Program
9.	Dose Assessment	CFH1	EP/Security Training and EP Drill Program
10.	Complete NRC event notification form	NCO3	EP Training and EP Drill Program
11.	Perform NRC notifications Note 1	NCO3	EP/Ops Training and EP Drill Program
12.	Activate ERDS Note 2	N/R	EP/Ops Training and EP Drill Program
13.	Perform other site-specific event notifications	N/A	EP/Ops Training and EP Drill Program
14.	Personnel accountability	N/A	EP/Ops Training and EP Drill Program
15.	Approve extension to allowable dose limits	N/A	EP/Ops Training and EP Drill Program

Notes: EAL RA1.1 or RA2.2, Alert
 EP G-1, Emergency Classification and Emergency Plan Activation, Rev 44
 EP G-2, Interim Emergency Response Organization, Rev 50
 EP G-3, Emergency Notification of Off-Site Agencies, Rev 59
 EP R-2, Release of Airborne Radioactive Materials Initial Assessment, Rev 35
Note 1 – A headset is available in the control room to enable NCO3 to maintain an open line with the NRC.
Note 2 – ERDS is not required for Post Shutdown Plants.

Diablo Canyon Power Plant On-Shift Staffing Analysis

Table 5A - E-Plan Implementation Timeline/Event 1.b

Function/Task	On-shift Position	Time from Event Initiation (minutes)																				
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120
Declare the Emergency	SS1	RA1.1/RA2.2																				
ERO notification	NCO3			X																		
Notification and direction to on-shift staff (e.g., to assemble, evacuate, etc.)	CFH1	X																				
	NCO3			X																		
Abbreviated NRC notification for DBT event	N/A																					
Complete State/local notification form	NCO3			X									X									X
Approve State/local notifications	SS1				X									X								X
Approve Offsite PARs	N/A																					
Perform State/local notifications	NCO3				X									X								X
Dose Assessment	CFH1				X																	
Complete NRC event notification form	NCO3						X															
Perform NRC notifications Note 1	NCO3							X (Periodic)														X
Activate ERDS Note 2	N/R																					
Perform other site-specific event notifications	N/A																					
Personnel accountability	N/A																					
Approve extension to allowable dose limits	N/A																					

Notes: Note 1 – A headset is available in the control room to enable NCO3 to maintain an open line with the NRC.

Note 2 – ERDS is not required for Post Shutdown Plants.



Task completion time



Augmented resources available for support

Diablo Canyon Power Plant On-Shift Staffing Analysis

Event #2 Design Basis Threat

Initial Conditions:

Time: Sunday @ 0230

Unit 1&2 in Post-Shutdown conditions and defueled

Sequence of Events:

0240 Security Watch Commander informs Shift Supervisor that PA has been breached by an adversary force

0245 Security Watch Commander informs Shift Supervisor that adversaries have been neutralized

No injuries to site personnel

No fires or collateral damage to plant equipment

No adverse consequences to plant safety

Diablo Canyon Power Plant On-Shift Staffing Analysis

Appendix B

TABLE 1 – On-shift Positions

Event 2: Design Basis Threat

ECL: Site Area Emergency

Line	On-shift Position	Emergency Plan Reference	Augmentation Elapsed Time (min)	Role in Table#/Line#	Unanalyzed Task?	TMS/ Action Required?
1.	Shift Supervisor/Certified Fuel Handler (SS1)	DCPP PSEP EPlan, Table 5-1	90	T2/L1 T5/L1 T5/L4 T5/L6 T5/L13	No	No
2.	Certified Fuel Handler (CFH1)	DCPP PSEP EPlan, Table 5-1	90	T2/L2 T5/L10 T5/L11	No	No
3.	Non-Certified Operator (NCO1)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L3	No	No
4.	Non-Certified Operator (NCO2)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L4	No	No
5.	Non-Certified Operator (NCO3)	DCPP PSEP EPlan, Table 5-1	90	T5/L2 T5/L5 T5/L8	No	No
6.	Watch Commander (SEC1)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L5 T5/L3	No	No
7.	Security Officer (SEC3)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L6	No	No
8.	Fire Captain (FC1)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L7	No	No

Notes: Although multiple functions have been identified for some positions, no conflict exists requiring further action. Performance of these functions by the identified positions is either acceptable by NEI 10-05 guidance, **OR** the functions are the same, **OR** the functions are performed sequentially without issue.

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 2 - Plant Operations & Safe Shutdown

Event 2

Two Units - One Control Room
Minimum Operations Crew Necessary to Implement
AOPs, EDMGs, or FSGs if applicable

Applicable to Unit 1&2

Line	Generic Title/Role	On-Shift Position	Task Performance Validation
1.	Shift Supervisor/Certified Fuel Handler	Shift Supervisor/Emergency Director (SS1)	Operations Training
2.	Certified Fuel Handler	Certified Fuel Handler (CFH1)	Operations Training
3.	Non-Certified Operator	U1 Aux/Turbine Building Operator (NCO1)	Operations Training
4.	Non-Certified Operator	U2 Aux/Turbine Building Operator (NCO2)	Operations Training

Notes: See Table 2A for AOP actions

Other (non-Operations) Personnel Necessary to Implement
AOPs, EDMGs or FSGs if applicable

Line	Generic Title/Role	On-Shift Position	Task Performance Validation
5.	Security Shift Supervisor	Watch Commander (SEC1)	Security Training
6.	Security Officer	Security Officer (SEC3)	Security Training
7.	Fire Brigade Leader	Fire Captain (FC1)	Fire Training

Notes: See Table 2A for AOP actions

Diablo Canyon Power Plant On-Shift Staffing Analysis

Event 2: Title: Table 2A -DBT

Procedure Step/Actions			Performance Time (mins) After Procedure Implementation																							
Proc/Step	Task	Assigned Resource	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120			
	Provide procedure direction and control	CFH1	X (Periodic)																							
CP M-15A Site Specific Security Threat – Initial Response Rev 14																										
Step 6.1	Direct U1/2 Shift Foreman to implement Atts 1-2	CFH1	X																							
Step 5	Start U1 Diesel gen	CFH1	X																							
Step 8	Direct U1 NCO to secure SFP cooling	CFH1	X																							
	Field actions to secure SFP cooling	NCO1 SEC3	X																							
Step 9	Start Fire water pumps	CFH1	X																							
Step 5	Start U2 Diesel gen	CFH1	X																							
Step 6	Check CR doors close	CFH1	X																							
Step 7	Place CR vent in Mode 3	CFH1	X																							
Step 10	Direct U2 NCO to secure SFP cooling	CFH1	X																							
	Field actions to secure SFP cooling	NCO2 SEC3	X																							
Step 6.1.3	Notify NRC	SS1	X																							
Step 6.1.4	Implement EP G-2	SS1	X (Periodic)																							
Step 6.1.5	Establish/maintain communications with Watch Commander	SS1 SEC1	X (Periodic)																							
Step 6.1.5.d	Notify offsite agencies in IAW Att 17	SEC1		X																						
Step 6.1.6	Notify Ops Manager to provide support to ICP	SS1				X																				
Step 6.1.7	Initiate Att 20	CFH1				X																				
Att 20 step 2	Notify Fire Captain to implement Att 18	CFH1				X																				
Att 18	Implement applicable actions IAW Att 18	FC1				X																				

Diablo Canyon Power Plant On-Shift Staffing Analysis

Event 2: Title: Table 2A -DBT

Procedure Step/Actions			Performance Time (mins) After Procedure Implementation																					
Proc/Step	Task	Assigned Resource	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120	
Att 20	Notify RP to implement Att 19 Step 1	CFH1				X																		



Task completion time



Procedure action no longer applicable **OR** requires procedure revision.



Evaluate procedure action/step for applicability in Post-Shutdown condition.

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 3 – Firefighting

Event 2

Line	Performed By	Task Analysis Controlling Method
1.	N/A	N/A
2.	N/A	N/A
3.	N/A	N/A
4.	N/A	N/A
5.	N/A	N/A

Notes: Fire Department response not required for this event.

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 4 – Radiation Protection & Chemistry

Event 2

Line	Position Performing Function/Task	Performance Time Period After Event Initiation (minutes)																					
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120	
1.	In-Plant Survey On-Shift Position: CRP1																						
2.	Out of Plant Survey On-Shift Position:																						
3.	Personnel Monitoring On-Shift Position: CRP1																						
4.	Job Coverage On-Shift Position: CRP1																						
5.	Dose Assessment On-Shift Position:																						
6.	Other Site-Specific RP – Describe: On-Shift Position:																						
7.	Chemistry function/task #1 – Describe: On-Shift Position: CRP2																						
8.	Chemistry function/task #2 – Describe: On-Shift Position: CRP2																						

Notes: CRP Technicians in ‘duck and cover’

 Task completion time

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 5 – Emergency Plan Implementation

Event 2

Line	Function/Task	On-Shift Position	Task Analysis Controlling Method
1.	Declare the Emergency	SS1	EP/Ops Training and EP Drill Program
2.	ERO notification	NCO3	EP/Ops Training and EP Drill Program
3.	Notification and direction to on-shift staff (e.g., to assemble, evacuate, etc.)	SEC1	EP/Ops Training and EP Drill Program
4.	Abbreviated NRC notification for DBT event	SS1	EP/Ops Training and EP Drill Program
5.	Complete State/local notification form	NCO3	EP/Ops Training and EP Drill Program
6.	Approve State/local notifications	SS1	EP/Ops Training and EP Drill Program
7.	Approve Offsite PARs	N/A	EP/Ops Training and EP Drill Program
8.	Perform State/local notifications	NCO3	EP/Ops Training and EP Drill Program
9.	Dose Assessment	N/A	EP/Security Training and EP Drill Program
10.	Complete NRC event notification form	CFH1	EP Training and EP Drill Program
11.	Perform NRC notifications Note 1	CFH1	EP/Ops Training and EP Drill Program
12.	Activate ERDS Note 2	N/R	EP/Ops Training and EP Drill Program
13.	Perform other site-specific event notifications Note 3	SS1	EP/Ops Training and EP Drill Program
14.	Personnel accountability	N/A	EP/Ops Training and EP Drill Program
15.	Approve extension to allowable dose limits	N/A	EP/Ops Training and EP Drill Program

Notes: EAL HS1.1, Site Area Emergency
 EP G-1, Emergency Classification and Emergency Plan Activation, Rev 45
 EP G-2, Interim Emergency Response Organization, Rev 50
 EP G-3, Emergency Notification of Off-Site Agencies, Rev 59
Note 1 – A headset is available in the control room to enable CFH1 to maintain an open line with the NRC.
Note 2 – ERDS is not required for Post Shutdown Plants.
Note 3 – SS1 notifies Ops Manager to provide support to ICP. Notification completed within $\approx$ 1-2 minutes.

Diablo Canyon Power Plant On-Shift Staffing Analysis

Table 5A - E-Plan Implementation Timeline/Event 2

Function/Task	On-shift Position	Time from Event Initiation (minutes)																				
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120
Declare the Emergency	SS1	HS1.1																				
ERO notification	NCO3				X																	
Notification and direction to on-shift staff (e.g., to assemble, evacuate, etc.)	SEC1	X																				
Abbreviated NRC notification for DBT event	SS1	X																				
Complete State/local notification form	NCO3				X										X							X
Approve State/local notifications	SS1				X										X							X
Approve Offsite PARs	N/A																					
Perform State/local notifications	NCO3					X										X						X
Dose Assessment	N/A																					
Complete NRC event notification form	CFH1						X															
Perform NRC notifications <i>Note 1</i>	CFH1							X (Periodic)														X
Activate ERDS <i>Note 2</i>	N/R																					
Perform other site-specific event notifications <i>Note 3</i>	SS1				X																	
Personnel accountability	N/A																					
Approve extension to allowable dose limits	N/A																					

Notes: *Note 1* – A headset is available in the control room to enable CFH1 to maintain an open line with the NRC.
Note 2 – ERDS is not required for Post Shutdown Plants.
Note 3 – SS1 notifies Ops Manager to provide support to ICP. Notification completed within $\approx$ 1-2 minutes.

 Task completion time
 Augmented resources available for support

Diablo Canyon Power Plant On-Shift Staffing Analysis

Event #3 Aircraft Probable Threat

Initial Conditions:

Time: Wednesday @ 0300

Unit 1&2 in Post-Shutdown conditions and defueled

Sequence of Events:

0300 NRC notifies DCPD control room of confirmed aircraft threat

Track of Interest (TOI) is 25 minutes from DCPD

Probable threat - > 5 minutes and < 30 minutes

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 1 – On-shift Positions

Event 3: Aircraft Probable Threat

ECL: Alert

Line	On-shift Position	Emergency Plan Reference	Augmentation Elapsed Time (min)	Role in Table#/Line#	Unanalyzed Task?	TMS/ Action Required?
1.	Shift Supervisor/Certified Fuel Handler (SS1)	DCPP PSEP EPlan, Table 5-1	90	T2/L1 T5/L1 T5/L6 T5/L13	No	No
2.	Certified Fuel Handler (CFH1)	DCPP PSEP EPlan, Table 5-1	90	T2/L2 T5/L3 T5/L10 T5/L11	No	No
3.	Non-Certified Operator (NCO1)	DCPP PSEP EPlan, Table 5-1	90	T2/L3 T5/L2 T5/L5 T5/L8	No	No
4.	Non-Certified Operator (NCO2)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L4	No	No
5.	Non-Certified Operator (NCO3)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L5	No	No
6.	Chemistry & RP Technician (CRP1)	DCPP PSEP EPlan, Table 5-1	60	T2/L6	No	No
7.	Chemistry & RP Technician (CRP2)	DCPP PSEP EPlan, Table 5-1	60	T2/L7	No	No
8.	Watch Commander (SEC1)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L8 T5/L3	No	No
9.	SAS Operator (SEC2)	DCPP PSEP EPlan, Table 5-1	N/A	T5/L14	No	No
10.	Security Officer (SEC3)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L9	No	No
11.	Fire Captain (FC1)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L10	No	No

Notes: Although multiple functions have been identified for some positions, no conflict exists requiring further action. Performance of these functions by the identified positions is either acceptable by NEI 10-05 guidance, **OR** the functions are the same, **OR** the functions are performed sequentially without issue.

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 2 - Plant Operations & Safe Shutdown

Event 3

Two Units - One Control Room
Minimum Operations Crew Necessary to Implement
AOPs, EDMGs or FSGs if applicable

Applicable to Unit 1&2

Line	Generic Title/Role	On-Shift Position	Task Performance Validation
1.	Shift Supervisor/Certified Fuel Handler	Shift Supervisor/Emergency Director (SS1)	Operations Training
2.	Certified Fuel Handler	Certified Fuel Handler (CFH1)	Operations Training
3.	Non-Certified Operator	U1 Aux/Turbine Building Operator (NCO1)	Operations Training
4.	Non-Certified Operator	U2 Aux/Turbine Building Operator (NCO2)	Operations Training
5.	Non-Certified Operator	Rover Operator (NCO3)	Operations Training

Notes: See Table 2A for AOP actions

Other (non-Operations) Personnel Necessary to Implement
AOPs, EDMGs or FSGs if applicable

Line	Generic Title/Role	On-Shift Position	Task Performance Validation
6.	Chemistry/RP Technician	Chemistry & RP Technician (CRP1)	Chemistry/RP Training
7.	Chemistry/RP Technician	Chemistry & RP Technician (CRP2)	Chemistry/RP Training
8.	Security Shift Supervisor	Watch Commander (SEC1)	Chemistry Training
9.	Security Officer	Security Officer (SEC3)	Security Training
10.	Fire Brigade Leader	Fire Captain (FC1)	Fire Training

Notes: See Table 2A for AOP actions

Diablo Canyon Power Plant On-Shift Staffing Analysis

Event 3: Title: Table 2A -Aircraft Probable Threat

Procedure Step/Actions			Performance Time (mins) After Procedure Implementation																					
Proc/Step	Task	Assigned Resource	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120	
	Provide procedure direction and control	CFH1	X (Periodic)																					
CP M-15A, Site Specific Security Threat – Initial Response, Rev 14																								
6.4.1	Provide Att 8 to U1	CFH1	X																					
Att 8 Step 2	Start EDGs and place in standby	CFH1	X																					
step 6	Direct U1 Aux Bldg Oper to secure SFP cooling	CFH1	X																					
	Field actions to secure SFP cooling	NCO1	X																					
Step 7	Start firewater pumps	CFH1		X																				
Step 10	Secure site bldg supply fans	CFH1 NCO3		X																				
6.4.2	Provide Att 9 to U2	CFH1	X																					
Step 3	Ensure CR door close	CFH1	X																					
Step 8	Direct U2 Aux Bldg Oper to secure SFP cooling	CFH1	X																					
	Field actions to secure SFP cooling	NCO2	X																					
Step 11	Secure site bldg supply fans	NCO3		X																				
6.4.3	Contact Watch Commander	SS1	X																					
6.4.4	Direct PA and SmartMsg IAW Att 10	SS1	X																					
Att 10 Steps 1-2	Make PA announcement and activate SmartMsg	CFH1	X																					
6.4.5	Maintain continuous communication with NRC	CFH1	X (Periodic)																					
6.4.7	Implement EP G-2 Checklist	SS1	X (Periodic)																					
6.4.8	Contact Watch Commander to implement Att 17	SS1				X																		

Diablo Canyon Power Plant On-Shift Staffing Analysis

Event 3: Title: Table 2A -Aircraft Probable Threat

Procedure Step/Actions			Performance Time (mins) After Procedure Implementation																						
Proc/Step	Task	Assigned Resource	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120		
Att 17 Step 1-22	Implement actions IAW Att 17	SEC1				X																			
Att 17 Step 9	Secure plant lighting	SEC3 NCO3				X																			
6.4.9	Notify Ops Manager to provide support to ICP	SS1				X																			
6.4.10	Implement Att 20	CFH1		X																					
Att 20 step 2	Notify Fire Captain to implement Att 18	CFH1				X																			
Att 18	Implement applicable actions IAW Att 18	FC1				X																			
Att 20 step 3	Notify RP to implement Att 19 Step 2	CFH1				X																			
Att 19	Implement applicable actions IAW Att 19 (relocate to CR)	CRP1 CRP2				X																			



Task completion time

Procedure action no longer applicable **OR** requires procedure revision.

Evaluate procedure action/step for applicability in Post-Shutdown condition.

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 3 – Firefighting

Event 3

Line	Performed By	Task Analysis Controlling Method
1.	N/A	N/A
2.	N/A	N/A
3.	N/A	N/A
4.	N/A	N/A
5.	N/A	N/A

Notes: Fire Department response not required for this event.

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 4 – Radiation Protection & Chemistry

Event 3

Line	Position Performing Function/Task	Performance Time Period After Event Initiation (minutes)																					
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120	
1.	In-Plant Survey On-Shift Position: CRP1																						
2.	Out of Plant Survey On-Shift Position:																						
3.	Personnel Monitoring On-Shift Position: CRP1																						
4.	Job Coverage On-Shift Position: CRP1																						
5.	Dose Assessment On-Shift Position:																						
6.	Other Site-Specific RP – Describe: On-Shift Position:																						
7.	Chemistry function/task #1 – Describe: On-Shift Position: CRP2																						
8.	Chemistry function/task #2 – Describe: On-Shift Position: CRP2																						

Notes: C&RP Technicians relocated to CR in accordance with CP-M-15A.

 Task completion time

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 5 – Emergency Plan Implementation

Event 3

Line	Function/Task	On-Shift Position	Task Analysis Controlling Method
1.	Declare the Emergency	SS1	EP/Ops Training and EP Drill Program
2.	ERO notification	NCO1	EP/Ops Training and EP Drill Program
3.	Notification and direction to on-shift staff (e.g., to assemble, evacuate, etc.)	SEC1 CFH1	EP/Ops Training and EP Drill Program
4.	Abbreviated NRC notification for DBT event	N/A	EP/Ops Training and EP Drill Program
5.	Complete State/local notification form	NCO1	EP/Ops Training and EP Drill Program
6.	Approve State/local notifications	SS1	EP/Ops Training and EP Drill Program
7.	Approve Offsite PARs	N/A	EP/Ops Training and EP Drill Program
8.	Perform State/local notifications	NCO1	EP/Ops Training and EP Drill Program
9.	Dose Assessment	N/A	EP/Security Training and EP Drill Program
10.	Complete NRC event notification form	CFH1	EP Training and EP Drill Program
11.	Perform NRC notifications Note 1	CFH1	EP/Ops Training and EP Drill Program
12.	Activate ERDS Note 2	N/R	EP/Ops Training and EP Drill Program
13.	Perform other site-specific event notifications Note 3	SS1	EP/Ops Training and EP Drill Program
14.	Personnel accountability	SEC2	EP/Ops Training and EP Drill Program
15.	Approve extension to allowable dose limits	N/A	EP/Ops Training and EP Drill Program

Notes: EAL HA1.1, Alert
 EP G-1, Emergency Classification and Emergency Plan Activation, Rev 45
 EP G-2, Interim Emergency Response Organization, Rev 50
 EP G-3, Emergency Notification of Off-Site Agencies, Rev 59
 EP G-4, Assembly and Accountability, Rev 30
 EP G-5, Evacuation of Non-Essential Site Personnel, Rev 14
Note 1 – A headset is available in the control room to enable CFH1 to maintain an open line with the NRC.
Note 2 – ERDS is not required for Post Shutdown Plants.
Note 3 – SS1 notifies Ops Manager to provide support to ICP. Notification completed within $\approx$ 1-2 minutes.

Diablo Canyon Power Plant On-Shift Staffing Analysis

Table 5A - E-Plan Implementation Timeline/Event 3

Function/Task	On-shift Position	Time from Event Initiation (minutes)																					
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120	
Declare the Emergency	SS1	HA1.1																					
ERO notification	NCO1				X																		
Notification and direction to on-shift staff (e.g., to assemble, evacuate, etc.)	SEC1 CFH1	X																					
Abbreviated NRC notification for DBT event	N/A																						
Complete State/local notification form	NCO1				X										X							X	
Approve State/local notifications	SS1				X										X							X	
Approve Offsite PARs	N/A																						
Perform State/local notifications	NCO1					X										X						X	
Dose Assessment	N/A																						
Complete NRC event notification form	CFH1						X																
Perform NRC notifications ^{Note 1}	CFH1							X (periodic)															X
Activate ERDS ^{Note 2}	N/R						X																
Perform other site-specific event notifications ^{Note 3}	SS1				X																		
Personnel accountability	SEC2					X																	
Approve extension to allowable dose limits	N/A																						

Notes: *Note 1* – A headset is available in the control room to enable CFH1 to maintain an open line with the NRC.
Note 2 – ERDS is not required for Post Shutdown Plants.
Note 3 – SS1 notifies Ops Manager to provide support to ICP. Notification completed within ≈ 1-2 minutes.

 Task completion time
 Augmented resources available for support

Diablo Canyon Power Plant On-Shift Staffing Analysis

Event #4 Control Room Fire with Evacuation and Remote Operation of ASW/CCW System

Initial Conditions:

Time: Friday @ 2100

Unit 1&2 in Post-Shutdown conditions and defueled

Sequence of Events:

- 2105 Operators observe smoke and flames coming from Panel P0FA in the Control Room
Annunciator PK10-10, FIRE DETECTED, is in alarm
- 2106 Smoke in CR becomes thicker
- 2107 Operators attempt to extinguish flames without success

Diablo Canyon Power Plant On-Shift Staffing Analysis

Appendix B

TABLE 1 – On-shift Positions

Event 4: Control Room Fire with Evacuation and Remote Operation of ASW/CCW System

ECL: Unusual Event

Line	On-shift Position	Emergency Plan Reference	Augmentation Elapsed Time (min)	Role in Table#/Line#	Unanalyzed Task?	TMS/ Action Required?
1.	Shift Supervisor/Certified Fuel Handler (SS1)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L1 T5/L1 T5/L3 T5/L6 T5/L10	No	No
2.	Certified Fuel Handler (CFH1)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L2	No	No
3.	Non-Certified Operator (NCO1)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L3	Yes ^{Note 1}	No
4.	Non-Certified Operator (NCO2)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L4	Yes ^{Note 1}	No
5.	Non-Certified Operator (NCO3)	DCPP PSEP EPlan, Table 5-1	N/A	T5/L2 T5/L5 T5/L8 T5/L11		
6.	Fire Captain (FC1)	DCPP PSEP EPlan, Table 5-1	N/A	T3/L1	No	No
7.	Firefighter (FF1)	DCPP PSEP EPlan, Table 5-1	N/A	T3/L2	No	No
8.	Firefighter (FF2)	DCPP PSEP EPlan, Table 5-1	N/A	T3/L3	No	No
9.	Firefighter (FF3)	DCPP PSEP EPlan, Table 5-1	N/A	T3/L4	No	No
10.	Firefighter (FF4)	DCPP PSEP EPlan, Table 5-1	N/A	T3/L5	No	No

Notes: Although multiple functions have been identified for some positions, no conflict exists requiring further action. Performance of these functions by the identified positions is either acceptable by NEI 10-05 guidance, **OR** the functions are the same, **OR** the functions are performed sequentially without issue.

Note 1 – Operation of the ASW/CCW at the Hot Shutdown Panels is currently not performed by the NCOs. Training and procedure revisions will be required prior to entering Post-Shutdown phase.

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 2 - Plant Operations & Safe Shutdown

Event 4

Two Units - One Control Room
Minimum Operations Crew Necessary to Implement
AOPs, EDMGs or FSGs if applicable

Applicable to Unit 1&2

Line	Generic Title/Role	On-Shift Position	Task Performance Validation
1.	Shift Supervisor/Certified Fuel Handler	Shifty Supervisor/Emergency Director (SS1)	Operations Training
2.	Certified Fuel Handler	Certified Fuel Handler (CFH1)	Operations Training
3.	Non-Certified Operator	U1 Aux/Turbine Building Operator (NCO1)	N/V Note 1
4.	Non-Certified Operator	U2 Aux/Turbine Building Operator (NCO2)	N/V Note 1

N/V – Not Validated

Notes: See Table 2A for AOP actions Note 1 – Operation of the ASW/CCW at the Hot Shutdown Panels is currently not performed by the NCOs. Training and procedure revisions will be required.

Diablo Canyon Power Plant On-Shift Staffing Analysis

Event 4:

Title: Table 2A -Control Room Fire w/ Evacuation and Remote Operation of Aux Salt Water (ASW)/Component Cooling Water (CCW) System

Procedure Step/Actions			Performance Time (mins) After Procedure Implementation																				
Proc/Step	Task	Assigned Resource	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120
	Provide procedure direction	CFH1	X (Periodic)																				
OP AP-34, Fire Response Initial Actions, Rev 0A																							
Step 1	Determine fire location	CFH1	X																				
	Implement CP M-6 and activate fire brigade	CFH1	X																				
Step 2	Transition to OP AP-34.5.3	CFH1	X																				
OP AP-34.5.3, Fire Response in the Control Room, Rev 0																							
Step 2	Check CR habitability	CFH1	X																				
	Go to AP-8A for U1	CFH1	X																				
OP AP-8A, Control Room Inaccessibility - Establishing Hot Standby U1, Rev 43																							
Step 12	Collect equipment needed	CFH1	X																				
Step 13a	Notify SS1 to implement Section 13	CFH1	X																				
Step 13b	Sound Site Emer Alarm and make PA Announcement	SS1	X																				
Step 13d	Evacuate CR	SS1 CFH1	X																				
Step 14	Establish ASW/CCW control from HSDP	CFH1		X																			
	Maintain U1 ASW/CCW control from HSDP	NCO1					X (Periodic)																
Section 6																							
Step 6.1.3	Assign Section 10 to U1 Aux Bldg. Oper	CFH1	X																				
Section 10																							
Step 10.4	Align 4kv bus F components to HSDP/Local	NCO1	X																				
Step 10.9	Align 4kv bus G components to HSDP/Local	NCO1		X																			

Diablo Canyon Power Plant On-Shift Staffing Analysis

Event 4: Title: Table 2A -Control Room Fire w/ Evacuation and Remote Operation of Aux Salt Water (ASW)/Component Cooling Water (CCW) System

Procedure Step/Actions			Performance Time (mins) After Procedure Implementation																				
Proc/Step	Task	Assigned Resource	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120
Step 10.16	Align 4kv bus H components to HSDP/Local	NCO1			X																		
OP AP-34.5.4, U2 Actions for Fire in U1 Control Room, Rev 0																							
Step 2	Check CR habitability	CFH1	X																				
	Go to AP-8A for U2	CFH1	X																				
OP AP-8A, Control Room Inaccessibility - Establishing Hot Standby U2, Rev 33																							
Step 12	Collect equipment needed	CFH1	X																				
Step 13a	Notify SS1 to implement Section 13	CFH1	X																				
Step 13b	Sound Site Emer Alarm and make PA Announcement	SS1	X																				
Step 13d	Evacuate CR	SS1 CFH1	X																				
Step 14	Establish ASW/CCW control from HSDP	CFH1		X																			
	Maintain U2 ASW/CCW control from HSDP	NCO2					X (Periodic)																
Section 6																							
Step 6.1.3	Assign Section 10 to U2 Aux Bldg. Oper	CFH1	X																				
Section 10																							
Step 10.4	Align 4kv bus F components to HSDP/Local	NCO2	X																				
Step 10.9	Align 4kv bus G components to HSDP/Local	NCO2		X																			
Step 10.16	Align 4kv bus H components to HSDP/Local	NCO2			X																		



Task completion time

Procedure action no longer applicable **OR** requires procedure revision.

Evaluate procedure action/step for applicability in Post-Shutdown condition.

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 3 – Firefighting

Event 4

Line	Performed By	Task Analysis Controlling Method
1.	Fire Captain (FC1)	Fire Training
2.	Firefighter (FF1)	Fire Training
3.	Firefighter (FF2)	Fire Training
4.	Firefighter (FF3)	Fire Training
5.	Firefighter (FF4)	Fire Training

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 4 – Radiation Protection & Chemistry

Event 4

Line	Position Performing Function/Task	Performance Time Period After Event Initiation (minutes)																					
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120	
1.	In-Plant Survey On-Shift Position: CRP1																						
2.	Out of Plant Survey On-Shift Position:																						
3.	Personnel Monitoring On-Shift Position: CRP1																						
4.	Job Coverage On-Shift Position: CRP1																						
5.	Dose Assessment On-Shift Position:																						
6.	Other Site-Specific RP – Describe: On-Shift Position:																						
7.	Chemistry function/task #1 – Describe: On-Shift Position: CRP2																						
8.	Chemistry function/task #2 – Describe: On-Shift Position: CRP2																						

 Task completion time

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 5 – Emergency Plan Implementation

Event 4

Line	Function/Task	On-Shift Position	Task Analysis Controlling Method
1.	Declare the Emergency	SS1	EP/Ops Training and EP Drill Program
2.	ERO notification	NCO3	EP/Ops Training and EP Drill Program
3.	Notification and direction to on-shift staff (e.g., to assemble, evacuate, etc.)	SS1	EP/Ops Training and EP Drill Program
4.	Abbreviated NRC notification for DBT event	N/A	EP/Ops Training and EP Drill Program
5.	Complete State/local notification form	NCO3	EP/Ops Training and EP Drill Program
6.	Approve State/local notifications	SS1	EP/Ops Training and EP Drill Program
7.	Approve Offsite PARs	N/A	EP/Ops Training and EP Drill Program
8.	Perform State/local notifications	NCO3	EP/Ops Training and EP Drill Program
9.	Dose Assessment	N/A	EP/Security Training and EP Drill Program
10.	Complete NRC event notification form	SS1	EP Training and EP Drill Program
11.	Perform NRC notifications Note 1	NCO3	EP/Ops Training and EP Drill Program
12.	Activate ERDS Note 2	N/R	EP/Ops Training and EP Drill Program
13.	Perform other site-specific event notifications	N/A	EP/Ops Training and EP Drill Program
14.	Personnel accountability	N/A	EP/Ops Training and EP Drill Program
15.	Approve extension to allowable dose limits	N/A	EP/Ops Training and EP Drill Program

Notes: EAL HU4.1, Unusual Event
 EP G-1, Emergency Classification and Emergency Plan Activation, Rev 45
 EP G-2, Interim Emergency Response Organization, Rev 50
 EP G-3, Emergency Notification of Off-Site Agencies, Rev 59
 EP G-4, Assembly and Accountability, Rev 30
Note 1 – A headset is available in the TSC to enable NCO3 to maintain an open line with the NRC if requested.
Note 2 – ERDS is not required for Post Shutdown Plants.

Diablo Canyon Power Plant On-Shift Staffing Analysis

Table 5A - E-Plan Implementation Timeline/Event 4

Function/Task	On-shift Position	Time from Event Initiation (minutes)																				
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120
Declare the Emergency	SS1	HU4.1																				
ERO notification	NCO3				X																	
Notification and direction to on-shift staff (e.g., to assemble, evacuate, etc.)	SS1	X																				
Abbreviated NRC notification for DBT event	N/A																					
Complete State/local notification form	NCO3				X										X							
Approve State/local notifications	SS1					X										X						
Approve Offsite PARs	N/A																					
Perform State/local notifications	NCO3					X										X						
Dose Assessment	N/A																					
Complete NRC event notification form	SS1							X														
Perform NRC notifications Note 1	NCO3								X													
Activate ERDS Note 2	N/R																					
Perform other site-specific event notifications	N/A																					
Personnel accountability	N/A																					
Approve extension to allowable dose limits	N/A																					

Notes: Note 1 – A headset is available in the TSC to enable NCO3 to maintain an open line with the NRC if requested.

Note 2 – ERDS is not required for Post Shutdown Plants.

Task completion time

Diablo Canyon Power Plant On-Shift Staffing Analysis

Event #5 Loss of SFP Level Requiring Implementation of Mitigative Strategies

Initial Conditions:

Time: Sunday @ 0100

Unit 1 in Post-Shutdown condition and defueled

Sequence of Events:

0110 Operators observe a decrease in U1 SFP Level

0115 Annunciator PK11-04, Spent Fuel Pool Lvl/Temp, is in alarm

U1 SFP at Level 2 (10 feet above top of fuel racks)

U1 SFP Level Instrument LI-801 Reading 123' 11"

Diablo Canyon Power Plant On-Shift Staffing Analysis

Appendix B

TABLE 1 – On-shift Positions

Event 5: Loss of SFP Level

ECL: Alert

Line	On-shift Position	Emergency Plan Reference	Augmentation Elapsed Time (min)	Role in Table#/Line#	Unanalyzed Task?	TMS/ Action Required?
1.	Shift Supervisor/Certified Fuel Handler (SS1)	DCPP PSEP EPlan, Table 5-1	90	T2/L1 T5/L1 T5/L6 T5/L10	No	No
2.	Certified Fuel Handler (CFH1)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L2	No	No
3.	Non-Certified Operator (NCO1)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L3	Yes <i>Note 1</i>	No
4.	Non-Certified Operator (NCO2)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L4	No	No
5.	Non-Certified Operator (NCO3)	DCPP PSEP EPlan, Table 5-1	90	T5/L2 T5/L3 T5/L5 T5/L8 T5/L11	No	No

Notes: Although multiple functions have been identified for some positions, no conflict exists requiring further action. Performance of these functions by the identified positions is either acceptable by NEI 10-05 guidance, **OR** the functions are the same, **OR** the functions are performed sequentially without issue.

Note 1 – Non-Certified Operator training needs to include operation of the SFP Leak Detection Valves as described in CAP E-17, Sampling and Analysis of the SFP Leak Detection Valves.

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 2 - Plant Operations & Safe Shutdown

Event 5

Two Units - One Control Room
Minimum Operations Crew Necessary to Implement
AOPs, EDMGs or FSGs if applicable

Applicable to Unit 1

Line	Generic Title/Role	On-Shift Position	Task Performance Validation
1.	Shift Supervisor/Certified Fuel Handler	Shift Supervisor/Emergency Director (SS1)	Operations Training
2.	Certified Fuel Handler	Certified Fuel Handler (CFH1)	Operations Training
3.	Non-Certified Operator	U1 Aux/Turbine Building Operator (NCO1)	Operations Training N/V Note 1
4.	Non-Certified Operator	U2 Aux/Turbine Building Operator (NCO2)	Operations Training

N/V – Not Validated

Notes: Note 1 – Non-Certified Operator training needs to include operation of the SFP Leak Detection Valves as described in CAP E-17, Sampling and Analysis of the SFP Leak Detection Valves.	See Table 2A for AOP actions

Diablo Canyon Power Plant On-Shift Staffing Analysis

Event 5: Title: Table 2A – Loss of SFP Level Requiring Implementation of Mitigation Strategies

Procedure Step/Actions			Performance Time (mins) After Procedure Implementation																				
Proc/Step	Task	Assigned Resource	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120
AR PK 11-04 Spent Fuel Pool Level/Temp Rev. 19																							
Step 2.3	SFP Low Level	CFH1	X																				
Step 2.3.1	Refer to EPG - 1	SS1	X																				
Step 2.3.2	Go To: OP AP-22 SFP Abnormalities	CFH1	X																				
OP AP-22, Spent Fuel Pool Abnormalities, Unit 1&2, Rev. 32																							
Step 4	Check for low level	CFH1	X																				
Step 7	Monitor RM-58, 59	CFH1	X (Periodic)																				
Step 8	Direct Implementation Appendix A	CFH1	X																				
Appendix A Step 2.b.2	Direct action to Add water to SFP from transfer tank	CFH1	X																				
Step 3g	Add water to SFP in accordance to OP B-7:II section 6.2	NCO1		X																			
(New Step)	Start MU Water Transfer pump (CR action)	CFH1				X																	
Steps 10-12	Perform system walk down	NCO2		X																			
Step 13	Check leakage out of SFP liner leak detection valves	NCO1						X															
Step 15	Check CCW Surge tank level	CFH1				X																	
Step 16	Check SFP at design flow	NCO2					X																
Step 17	Check SFP Temp not an alarm	CFH1				X																	
Step 18	Request sample	CFH1					X																
Step 20	Monitor SFP level	CFH1					X (Periodic)																

 Task completion time

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 3 – Firefighting

Event 5

Line	Performed By	Task Analysis Controlling Method
1.	N/A	N/A
2.	N/A	N/A
3.	N/A	N/A
4.	N/A	N/A
5.	N/A	N/A

Notes: Fire Department response not required for this event.

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 4 – Radiation Protection & Chemistry

Event 5

Line	Position Performing Function/Task	Performance Time Period After Event Initiation (minutes)																					
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120	
1.	In-Plant Survey On-Shift Position: CRP2																						
2.	Out of Plant Survey On-Shift Position:																						
3.	Personnel Monitoring On-Shift Position: CRP1																						
4.	Job Coverage On-Shift Position: CRP1																						
5.	Dose Assessment On-Shift Position:																						
6.	Other Site-Specific RP – Describe: On-Shift Position:																						
7.	Chemistry function/task #1 – Describe: On-Shift Position:																						
8.	Chemistry function/task #2 – Describe: On-Shift Position:																						



Task completion time

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 5 – Emergency Plan Implementation

Event 5

Line	Function/Task	On-Shift Position	Task Analysis Controlling Method
1.	Declare the Emergency	SS1	EP/Ops Training and EP Drill Program
2.	ERO notification	NCO3	EP/Ops Training and EP Drill Program
3.	Notification and direction to on-shift staff (e.g., to assemble, evacuate, etc.)	NCO3	EP/Ops Training and EP Drill Program
4.	Abbreviated NRC notification for DBT event	N/A	EP/Ops Training and EP Drill Program
5.	Complete State/local notification form	NCO3	EP/Ops Training and EP Drill Program
6.	Approve State/local notifications	SS1	EP/Ops Training and EP Drill Program
7.	Approve Offsite PARs	N/A	EP/Ops Training and EP Drill Program
8.	Perform State/local notifications	NCO3	EP/Ops Training and EP Drill Program
9.	Dose Assessment	N/A	EP/Security Training and EP Drill Program
10.	Complete NRC event notification form	SS1	EP Training and EP Drill Program
11.	Perform NRC notifications Note 1	NCO3	EP/Ops Training and EP Drill Program
12.	Activate ERDS Note 2	N/R	EP/Ops Training and EP Drill Program
13.	Perform other site-specific event notifications	N/A	EP/Ops Training and EP Drill Program
14.	Personnel accountability	N/A	EP/Ops Training and EP Drill Program
15.	Approve extension to allowable dose limits	N/A	EP/Ops Training and EP Drill Program

Notes: EAL RA2.3, Alert
 EP G-1, Emergency Classification and Emergency Plan Activation, Rev 45
 EP G-2, Interim Emergency Response Organization, Rev 50
 EP G-3, Emergency Notification of Off-Site Agencies, Rev 59
Note 1 – A headset is available in the control room to enable NCO3 to maintain an open line with the NRC.
Note 2 – ERDS is not required for Post Shutdown Plants.

Diablo Canyon Power Plant On-Shift Staffing Analysis

Table 5A - E-Plan Implementation Timeline/Event 5

Function/Task	On-shift Position	Time from Event Initiation (minutes)																				
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120
Declare the Emergency	SS1	RA2.3																				
ERO notification	NCO3				X																	
Notification and direction to on-shift staff (e.g., to assemble, evacuate, etc.)	NCO3			X																		
Abbreviated NRC notification for DBT event	N/A																					
Complete State/local notification form	NCO3				X									X								X
Approve State/local notifications	SS1					X									X							X
Approve Offsite PARs	N/A																					
Perform State/local notifications	NCO3					X										X						X
Dose Assessment	N/A																					
Complete NRC event notification form	SS1						X															
Perform NRC notifications Note 1	NCO3							X (Periodic)														X
Activate ERDS Note 2	N/R																					
Perform other site-specific event notifications	N/A																					
Personnel accountability	N/A																					
Approve extension to allowable dose limits	N/A																					

Notes: **Note 1** – A headset is available in the control room to enable NCO3 to maintain an open line with the NRC.
Note 2 – ERDS is not required for Post Shutdown Plants.

 Task completion time
 Augmented resources available for support

Diablo Canyon Power Plant On-Shift Staffing Analysis

Event #6 Loss of SFP Level with release exceeding PAGs requiring PARs (Fast Breaker)

Initial Conditions:

Time: Monday @ 0400

Unit 1&2 in Post-Shutdown conditions and defueled

Sequence of Events:

0400 Earthquake occurs affecting the site

> 7.5 on the Richter Scale (Hosgri earthquake (HE))

0401 Operators observe a significant lowering of U1 SFP & U2 SFP levels

0402 Annunciator PK11-04, Spent Fuel Pool Lvl/Temp, is in alarm

Annunciator PK11-10, FHB High Radiation, is in alarm
1(2)-RM-58 reading $3.5E+3$ mR/hr

0405 U1 SFP & U2 SFP levels at Level 3

U1 SFP & U2 SFP Level Instrument LI-801 Reading 114' 11"

Annunciator PK11-25, Plant Vent Radiation, is in alarm
1(2)-RM-87 reading $3.5E-1$ μ Ci/cc
1(2)-RM-14/14R reading offscale High

Diablo Canyon Power Plant On-Shift Staffing Analysis

Appendix B

TABLE 1 – On-shift Positions

Event 6: Loss of SFP Level Resulting in a Release Exceeding PAGs Requiring PARs (Fast Breaker)

ECL: General Emergency

Line	On-shift Position	Emergency Plan Reference	Augmentation Elapsed Time (min)	Role in Table#/Line#	Unanalyzed Task?	TMS/ Action Required?
1.	Shift Supervisor/Certified Fuel Handler (SS1)	DCPP PSEP EPlan, Table 5-1	90	T2/L1 T5/L1 T5/L5 T5/L6 T5/L7 T5/L15	No	No
2.	Certified Fuel Handler (CFH1)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L2 T5/L9	No	No
3.	Non-Certified Operator (NCO1)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L3	No	No
4.	Non-Certified Operator (NCO2)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L4	No	No
5.	Non-Certified Operator (NCO3)	DCPP PSEP EPlan, Table 5-1	90	T5/L2 T5/L3 T5/L8 T5/L10 T5/L11	Yes ^{Note 1}	No
6.	Chemistry & RP Technician (CRP1)	DCPP PSEP EPlan, Table 5-1	60	T2/L5 T4/L4 T4/L6	No	No
7.	Chemistry & RP Technician (CRP2)	DCPP PSEP EPlan, Table 5-1	60	T2/L6 T4/L5 T4/L8	No	No
8.	Fire Captain (FC1)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L7	No	No
9.	Firefighter (FF1)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L8	No	No
10.	Firefighter (FF2)	DCPP PSEP EPlan, Table 5-1	N/A	T2/L9	No	No

Diablo Canyon Power Plant On-Shift Staffing Analysis

Line	On-shift Position	Emergency Plan Reference	Augmentation Elapsed Time (min)	Role in Table#/Line#	Unanalyzed Task?	TMS/ Action Required?
11.	SAS Operator (SEC2)	DCPP PSEP EPlan, Table 5-1	N/A	T5/L14	No	No

Notes: Although multiple functions have been identified for some positions, no conflict exists requiring further action. Performance of these functions by the identified positions is either acceptable by NEI 10-05 guidance, **OR** the functions are the same, **OR** the functions are performed sequentially without issue.

Note 1 – Communicator training needs to be revised to include guidance on completion of the NRC notification form.

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 2 - Plant Operations & Safe Shutdown

Event 6

Two Units - One Control Room
Minimum Operations Crew Necessary to Implement
AOPs, EDMGs or FSGs if applicable

Applicable to Unit 1&2

Line	Generic Title/Role	On-Shift Position	Task Performance Validation
1.	Shift Supervisor/Certified Fuel Handler	Shift Supervisor/Emergency Director (SS1)	Operations Training
2.	Certified Fuel Handler	Certified Fuel Handler (CFH1)	Operations Training
3.	Non-Certified Operator	U1 Aux/Turbine Building Operator (NCO1)	Operations Training
4.	Non-Certified Operator	U2 Aux/Turbine Building Operator (NCO2)	Operations Training

Notes: See Table 2A for AOP/FSG actions

Other (non-Operations) Personnel Necessary to Implement
AOPs, EDMGs or FSGs if applicable

Line	Generic Title/Role	On-Shift Position	Task Performance Validation
5.	Chemistry/RP Technician	Chemistry & RP Technician (CRP1)	Chemistry/RP Training
6.	Chemistry/RP Technician	Chemistry & RP Technician (CRP2)	Chemistry/RP Training
7.	Fire Brigade Leader	Fire Captain (FC1)	Fire Training
8.	Fire Brigade Member	Firefighter (FF1)	Fire Training
9.	Fire Brigade Member	Firefighter (FF2)	Fire Training

Notes: See Table 2A for AOP/FSG actions

Diablo Canyon Power Plant On-Shift Staffing Analysis

Event 6: Title: Table 2A – Loss of SFP Level Resulting in a Release Exceeding PAGs Requiring PARs (Fast Breaker)

Procedure Step/Actions			Performance Time (mins) After Procedure Implementation																					
Proc/Step	Task	Assigned Resource	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120	
AR PK 11-04, Spent Fuel Pool Level/Temp, Unit 1, Rev. 19; AR PK 11-04, Spent Fuel Pool Level/Temp, Unit 2, Rev. 12																								
Step 2.3	SFP Low Level	CFH1	X																					
Step 2.3.1	Refer to EPG - 1	SS1	X																					
Step 2.3.2	Go To: OP AP-22 SFP Abnormalities	CFH1	X																					
OP AP-22, Spent Fuel Pool Abnormalities, Unit 1&2, Rev. 32																								
Step 4	Check for low level	CFH1	X																					
Step 7	Monitor RM-58, 59	CFH1	X (Periodic)																					
Step 8	Direct Implementation Appendix A	CFH1	X																					
Appendix A Step 2.b.2	Direct action to Add water to SFP from transfer tank	CFH1	X																					
Step 3g (Unit 1)	Add water to SFP in accordance to OP B-7:II section 6.2	NCO1 CRP1		X																				
Step 3g (Unit 2)	Add water to SFP in accordance to OP B-7:II section 6.2	NCO2 CRP2		X																				
(New Step)	Start MU Water Transfer pump (CR action)	CFH1				X																		
Steps 10-12 (Unit 1)	Perform system walk down	NCO1 CRP1					X																	
Steps 10-12 (Unit 2)	Perform system walk down	NCO1 CRP1								X														
Step 13	Check leakage out of SFP liner leak detection valve	CRP2						X																
Step 15	Check CCW Surge tank level	CFH1								X														
Step 16	Check SFP at design flow	NCO2								X														
Step 17	Check SFP Temp not an alarm	CFH1								X														
Step 20 RNO	GOTO FSG 11	CFH1											X											

Diablo Canyon Power Plant On-Shift Staffing Analysis

Event 6:

Title: Table 2A – Loss of SFP Level Resulting in a Release Exceeding PAGs Requiring PARs (Fast Breaker)

Procedure Step/Actions			Performance Time (mins) After Procedure Implementation																					
Proc/Step	Task	Assigned Resource	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120	
FSG 11, Alternate SFP Makeup Cooling, Rev. 2 (Strategy TBD)																								
	Implement SFP spray strategy (Unit 1)	NCO1 NCO2 CRP1 FC1 FF1 FF2											X											
	Implement SFP spray strategy (Unit 2)	NCO1 NCO2 CRP1 FC1 FF1 FF2															X							



Task completion time

Evaluate procedure action/step for applicability in Post-Shutdown condition.

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 3 – Firefighting

Event 6

Line	Performed By	Task Analysis Controlling Method
1.	N/A	N/A
2.	N/A	N/A
3.	N/A	N/A
4.	N/A	N/A
5.	N/A	N/A

Notes: Fire Department response not required for this event.

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 4 – Radiation Protection & Chemistry

Event 6

Line	Position Performing Function/Task	Performance Time Period After Event Initiation (minutes)																					
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120	
1.	In-Plant Survey On-Shift Position: CRP2																						
2.	Out of Plant Survey On-Shift Position:																						
3.	Personnel Monitoring On-Shift Position: CRP1																						
4.	Job Coverage (Add water to U1 SFP) On-Shift Position: CRP1		X																				
5.	Job Coverage (Add water to U2 SFP) On-Shift Position: CRP2		X																				
6.	Job Coverage On-Shift Position: CRP1					X												X					
7.	Dose Assessment On-Shift Position:																						
8.	Other Site-Specific RP – Describe: Check leakage out of SFP liner leak detection valve On-Shift Position: CRP2						X																
9.	Chemistry function/task #1 – Describe: On-Shift Position: CRP3																						
10.	Chemistry function/task #2 – Describe: On-Shift Position: CRP3																						

Notes: RCP D-420, Sampling and Measuring Airborne Activity, Rev 32A
RCP D-500, Routine and Job Coverage Surveys, Rev 44
CAP E-17, Sampling and Analysis of the SFP Leak Detection Valves, Rev 14



Task completion time

Augmented resources available for support

Evaluate procedure action/step for applicability in Post-Shutdown condition.

Diablo Canyon Power Plant On-Shift Staffing Analysis

TABLE 5 – Emergency Plan Implementation

Event 6

Line	Function/Task	On-Shift Position	Task Analysis Controlling Method
1.	Declare the Emergency	SS1	EP/Ops Training and EP Drill Program
2.	ERO notification	NCO3	EP/Ops Training and EP Drill Program
3.	Notification and direction to on-shift staff (e.g., to assemble, evacuate, etc.)	NCO3	EP/Ops Training and EP Drill Program
4.	Abbreviated NRC notification for DBT event	N/A	EP/Ops Training and EP Drill Program
5.	Complete State/local notification form	SS1	EP/Ops Training and EP Drill Program
6.	Approve State/local notifications	SS1	EP/Ops Training and EP Drill Program
7.	Approve Offsite PARs	SS1	EP/Ops Training and EP Drill Program
8.	Perform State/local notifications	NCO3	EP/Ops Training and EP Drill Program
9.	Dose Assessment	CFH1	EP/Security Training and EP Drill Program
10.	Complete NRC event notification form	NCO3	EP Training and EP Drill Program
11.	Perform NRC notifications Note 1	NCO3	EP/Ops Training and EP Drill Program
12.	Activate ERDS Note 2	N/A	EP/Ops Training and EP Drill Program
13.	Perform other site-specific event notifications	N/A	EP/Ops Training and EP Drill Program
14.	Personnel accountability	SEC2	EP/Ops Training and EP Drill Program
15.	Approve extension to allowable dose limits	SS1	EP/Ops Training and EP Drill Program

Notes: EAL RG1.1, General Emergency
 EP G-1, Emergency Classification and Emergency Plan Activation, Rev 45
 EP G-2, Interim Emergency Response Organization, Rev 50
 EP G-3, Emergency Notification of Off-Site Agencies, Rev 59
 EP G-4, Assembly and Accountability, Rev 30
 EP G-5, Evacuation of Non-Essential Site Personnel, Rev 14
 EP R-2, Release of Airborne Radioactive Materials Initial Assessment, Rev 35
 EP RB-2, Emergency Exposure Guides, Rev 08
 EP RB-10, Protective Action Recommendations, Rev 21
Note 1 – A headset is available in the control room to enable NCO3 to maintain an open line with the NRC.
Note 2 – ERDS is not required for Post Shutdown Plants.

Diablo Canyon Power Plant On-Shift Staffing Analysis

Table 5A - E-Plan Implementation Timeline/Event 6

Function/Task	On-shift Position	Time from Event Initiation (minutes)																				
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105-120
Declare the Emergency	SS1	RG1.1																				
ERO notification	NCO3				X																	
Notification and direction to on-shift staff (e.g., to assemble, evacuate, etc.)	NOC3				X																	
Abbreviated NRC notification for DBT event	N/A																					
Complete State/local notification form	SS1				X										X							X
Approve State/local notifications	SS1					X										X						X
Approve Offsite PARs	SS1					X										X						X
Perform State/local notifications	NCO3					X										X						X
Dose Assessment	CFH1					X (Periodic)																X
Complete NRC event notification form	NCO3							X														
Perform NRC notifications Note 1	NCO3								X (Periodic)													X
Activate ERDS Note 2	N/A																					
Perform other site-specific event notifications	N/A																					
Personnel accountability	SEC2				X																	
Approve extension to allowable dose limits	SS1				X (As needed)																	X

Notes: **Note 1** – A headset is available in the control room to enable NCO3 to maintain an open line with the NRC.
Note 2 – ERDS is not required for Post Shutdown Plants.

Task completion time
 Augmented resources available for support

EMERGENCY RESPONSE ORGANIZATION TASK ANALYSIS

This attachment provides a summary Table of the existing Emergency Response Organization (ERO) positions and their respective Emergency Plan tasks as defined in the Diablo Canyon Power Plant (DCPP) Emergency Plan and Emergency Plan Implementing Procedures (EPIPs). The duties of the DCPP ERO positions being eliminated were reviewed against NUREG-0654, the DCPP Emergency Plan, and the DCPP EPIPs. Each eliminated ERO position was analyzed to ensure key tasks of the position are retained and performed by other ERO members, and unnecessary tasks were appropriately eliminated. The tasks were also evaluated against the NUREG-0654 Planning Standards to ensure regulatory requirements were maintained.

The table will be used to update and revise EPIPs with regard to reassignment and revision of tasks resulting from this analysis.

The Table is arranged in columns as described below:

Facility (Column A) : This column identifies the affected Emergency Response Facility:

- TSC – Technical Support Center
- OSC – Operations Support Center
- EOF – Emergency Operations Facility
- JIC – Joint Information Center

Current ERO Position/Acronym (Column B): This column identifies the ERO Position title. Each ERO position is also identified with a unique abbreviation for reference throughout the table. For example, TEC is for Technical Support Center Site Emergency Coordinator.

Tasks defined by DCPP Emergency Plan (Column C): This column identifies the specific position tasks identified in the DCPP Emergency Plan and EPIPs. Each task is identified with a unique task ID number for quick reference throughout the table. Those tasks that begin with ‘E’ are responsibilities assigned per the DCPP Emergency Plan; those that begin with a ‘P’ are assigned per the EPIPs.

Task Disposition (Eliminated/Reassigned To) (Column D): This column identifies the disposition of those tasks assigned to a deleted ERO position under this document. Each ERO task was evaluated and dispositioned as either Eliminated, Reassigned, or Modified. Tasks that are reassigned designate the ERO member receiving the task. Note that tasks which are assigned to a person who remains on the DCPP ERO were not dispositioned.

Justification / Implementing action (Column E): This column provides a conclusion as to why this change is acceptable.

Tasks transferred to this position per this Assessment (Column F): This column identifies tasks which have been transferred to the identified ERO position per this assessment. This column lists and tasks that have been transferred from an eliminated position. The task number ties to the number assigned to this task where it originated. Note: This column does not align across with information contained in columns to the left.

Position Eliminated (Column G): This column identifies whether the position is being eliminated as part of this document. Those positions that are being eliminated contain a 'Yes' in this column.

Minimum Staff (Column H): This column identifies those positions that are considered Minimum Staff in the current approved DCPD Emergency Plan (i.e., Yes/No).

NRC PI Key ERO (Column I): This column identifies whether the position is a current approved Key ERO position with respect to the NRC Performance Indicator for ERO performance at the site.

Emergency Plan Section Reference (Column J): This column identifies the section of the current approved DCPD Emergency Plan or EIPs which contains the position tasks/responsibilities.

Attachment 4
DIABLO CANYON POWER PLANT ERO STAFFING ASSESSMENT MATRIX

	A	B	C	D	E	F	G	H	I	J
	Facility	ERO Position/ Acronym	Tasks Defined by DCPP Emergency Plan (‘E-’ are E-Plan and ‘P-’ are procedure tasks)	Task Disposition (Eliminated/ Reassigned To)	Justification/ Implementing Action	Tasks Transferred to this Position per this Assessment	Position Eliminated for PSEP	Current Min Staff Yes/No	Current NRC PI Key ERO	Current Procedure(s) E-Plan Section(s)
1	TSC	Site Emergency Coordinator TEC	E-TEC1: Establish the emergency response organization in the TSC			E-TCA1/P-TCA1: Oversee TSC communications staff	No	Yes	Yes	E-Plan, Section 5.6.1; EP G-1, Section 3.2; EP G-3, Section 3.3; EP G-4, Section 3.5; EP G-5, Section 3.2; EP RB-1, Section 3.1; EP RB-2, Section 4.1; EP RB-3, Section 3.2; EP RB-10, Section 3.2; EP EF-1, Section 3.1; EP EF-9, Section 3.2
2			E-TEC2/P-TEC1: Relieve the Shift Manager Supervisor after the TSC is activated	Modify	Revise the Shift Manager to the Shift Supervisor to reflect reassigned responsibilities	E-TCA4/P-TCA4: As directed by the Site Emergency Coordinator, n otify plant staff and other affected individuals and organizations of the emergency and their assignments				
3			E-TEC3/P-TEC2: Until relieved by the Emergency Director at the EOF, provide direction for all emergency response operations performed by Company personnel in the SLO area							
4			E-TEC4/P-TEC3: Until relieved by the Emergency Director at the EOF, request assistance as necessary for onsite or offsite radiation monitoring from Federal agencies, either through the County/State emergency response organization once established, or directly							
5			E-TEC5/P-TEC4: Until relieved by the Emergency Director at the EOF, authorize any PARs	Eliminate	The performance of PARs is no longer supported in the TSC. This function is directly transferred from on-shift to the EOF.					
6			E-TEC6/P-TEC5: Until relieved by the Emergency Director at the EOF, authorize changes in the Emergency Classification and NRC notification of offsite authorities	Modify	The performance of state/local Notification is no longer supported in the TSC. This function is directly transferred from on-shift to the EOF.					
7			E-TEC7/P-TEC6: Until relieved by the Emergency Director at the EOF, authorize any extraordinary emergency measures, such as the use of Company personnel exposure limits							
8			E-TEC8/P-TEC7: Until relieved by the Emergency Director at the EOF, a A uthorize the ingestion of potassium iodine to onsite personnel	Modify	Clarifies this task for onsite personnel will always remain with the SEC.					
9			E-TEC9/P-TEC8: Until relieved by the Emergency Director at the EOF, authorize the ingestion to potassium iodine to offsite monitoring personnel							
10			E-TEC10/P-TEC9: Until relieved by the Emergency Director at the EOF, approve information for inclusion in media releases							
11			E-TEC11: Until relieved by the Emergency Director at the EOF, authorize overtime and other expenses associated with maintaining an appropriate onsite Emergency Organization throughout the emergency response period							
12			E-TEC12/P-TEC10: Until relieved by the Emergency Director at the EOF, authorize the evacuation of the plant site and specify the appropriate evacuation route and offsite assembly area if applicable							
13			E-TEC13: Coordinate and direct all onsite activities							
14			E-TEC14/P-TEC11: Maintain liaison with offsite emergency support groups providing onsite assistance and support the Emergency Director in the development of a coordinated recovery action plan for onsite							
15			E-TEC15: Recommend changes in the Emergency Classification to the Emergency Director							
16			E-TEC16: Manage TSC operations - collect and analyze technical information to assess plant conditions							
17			E-TEC17: Manage TSC operations - provide technical counsel in support of the Control Room							
18			E-TEC18: Manage TSC operations - assess radiological release potential							
19			E-TEC19: Manage TSC operations - determine actual or potential release rates							
20			E-TEC20: Manage TSC operations - onsite exposure monitoring and contamination control							
21			E-TEC21: Manage TSC operations - repair plant components or system as required by the emergency and/or consequences							
22			E-TEC22: Provide management direction to the Control Room through the Operations Advisor							
23			E-TEC23: Provide management direction to the OSC through the OSC Director							
24			E-TEC24: Notify plant staff and other affected individuals and organizations of the emergency and a A ssign plant staff personnel to positions in the Onsite Emergency Organization as appropriate	Modify	Combined with E-TCA4/P-TCA4 transferred task					
25			E-TEC25/P-TEC12: Establish and maintain onsite personnel accountability							
26			P-TEC13: Appoints the Evacuation Coordinator, if not already done so by the Shift Manager Supervisor	Modify	Revise the Shift Manager to the Shift Supervisor to reflect reassigned responsibilities					
27			P-TEC14: Determines TSC habitability, the need to relocate TSC personnel to a backup location, and authorizing the relocation of other on-site ERO personnel as requested.							
28										

Attachment 4
DIABLO CANYON POWER PLANT ERO STAFFING ASSESSMENT MATRIX

	A	B	C	D	E	F	G	H	I	J
1	Facility	ERO Position/ Acronym	Tasks Defined by DCPPEmergency Plan (‘E-’ are E-Plan and ‘P-’ are procedure tasks)	Task Disposition (Eliminated/ Reassigned To)	Justification/ Implementing Action	Tasks Transferred to this Position per this Assessment	Position Eliminated for PSEP	Current Min Staff Yes/No	Current NRC PI Key ERO	Current Procedure(s) E-Plan Section(s)
29	TSC	TSC Director TSCD	E-TSCD1/P-TSCD1: Set up and staff the TSC and provide assistance to the Site Emergency Coordinator in performance of their response activities	Eliminate	Performed by E-TEC1 and E-TEC24		Yes	No	No	E-Plan, Section 5.6.2; EP EF-1, Section 3.2
30			E-TSCD2/P-TSCD2: Ensure adequate staffing is available in the TSC	Eliminate	Performed by E-TEC1 and E-TEC24					
31			E-TSCD3/P-TSCD3: Coordinate ongoing TSC operations	Eliminate	Performed by E-TEC16 through E-TEC21					
32	TSC	Operations (Ops) Communicator - CR TOPS	E-TOPS1/P-TOPS1: Maintain continuous communications from the Control Room with the TSC, transmit and receive technical data and procedural activities between the facilities	Eliminate	Based on reduced scope and consequences of accidents associated with defueled reactors, communication between the ERFs can occur directly between the facility leads without reduction in emergency response capability. The Communications Advisor (E-TCA3) performs this activity, which is reassigned to the Operations Advisor.		Yes	No	No	E-Plan, Section 5.6.13; EP EF-1, Section 3.13
33	TSC	Agency/ENS Coordinator TENS	E-TENS1/P-TENS1: Maintain communications with the NRC over the ENS telephone line				No	Yes	No	E-Plan, Section 5.6.14; EP EF-1, Section 3.14
34			E-TENS2/P-TENS2: Perform state and local notifications if EOF is not available	Eliminate	The performance of state/local Notification is no longer supported in the TSC. This function is directly transferred from on-shift to the EOF.					
35	TSC	Communications Advisor TCA	E-TCA1/P-TCA1: Oversee TSC communications staff	Reassign to the Site Emergency Coordinator			Yes	Yes	Yes	E-Plan, Section 5.6.12; EP G-3, Section 3.4; EP RB-10, Section 3.6; EP EF-1, Section 3.12
36			E-TCA2/P-TCA2: Perform or oversee all offsite notifications when the Site Emergency Coordinator has responsibilities for classifications, notifications, and PARs	Eliminate	The performance of state/local notification and PARs is no longer supported in the TSC. This function is directly transferred from on-shift to the EOF. The performance of NRC notification is assigned to the Agency/ENS Coordinator (E-TENS1).					
37			E-TCA3/P-TCA3: Maintain continuous communications with the Control Room, transmit and receive technical data and procedural activities between the facilities	Reassign to the Operations Advisor						
38			E-TCA4/P-TCA4: ~~As directed by the Site Emergency Coordinator, n~~ otify plant staff and other affected individuals and organizations of the emergency and their assignments	Modify and Reassign to the Site Emergency Coordinator	Revised since this is being assigned to the Site Emergency Coordinator.					
39	TSC	Radiological Advisor TRA	E-TRA1/P-TRA1: Coordinate emergency radiological response efforts			E-TRDP1/P-TRDP1: Enable TSC radiation monitors and habitability	No	No	Yes	E-Plan, Section 5.6.3; EP RB-1, Section 3.3; EP RB-3, Section 3.5; EP RB-5, Section 3.1; EP EF-1, Section 3.3
40			E-TRA2/P-TRA2: Advise the Site Emergency Coordinator on matters relating to radiological safety			E-TRDP2/P-TRDP2: Trend radiation levels in the plant				
41			E-TRA3/P-TRA3: Provide Radiological Engineering support to the TSC			E-TRDP3/P-TRDP3: Serve as the primary contact for ~~Site RP Coordinator~~ OSC Director in the TSC				
42			E-TRA4: Coordinate and supervise operation and control of radiological emergency data transmission systems, review and evaluation of data from these systems, and develop data and status updates for transmission offsite			E-TPPC1/P-TPPC1: ~~Assist the Reactor Engineer in reading the PPC data and p~~ P repare release pathway information for dose assessment purposes				
43			E-TRA5/P-TRA4: Prior to UDAC staffing, assist with PAR development based on Control Room or TSC dose assessment	Eliminate	The performance of PARs is no longer supported in the TSC. This function is directly transferred from on-shift to the EOF.	E-ORP2/P-ORP1/E-OCHM1/P-OCHM1: Direct in-plant surveys, direct analysis of in-plant samples , and establish radiation and/or contamination control and boundaries				
44			P-TRA5: Issue personnel dosimetry and ensure records keeping is implemented and maintained			E-ORP3/P-ORP2: Determine radiation protection access requirements for entry to radiologically controlled areas				
45			P-TRA6: Assess needs for training and dosimetry waivers and advise the Site Emergency Coordinator			E-ORP4/P-ORP3: Determine when an emergency exposure authorization is required and provide justification to the Site Emergency Coordinator or Emergency Director				
46			P-TRA7: Determine the decontamination facilities to be used under emergency conditions			P-ORP5: Evaluate when KI should be issued to onsite PG&E personnel ~~and~~ , coordinate the issuance and ingestion, ~~and keep the Radiological Advisor apprised~~				
47			P-TRA8: Ensure habitability conditions for occupied areas of the protected area are monitored			E-ORP6: Coordinate briefing and dispatch of personnel into affected plant areas with the OSC ~~Director Team Coordinator~~				
48			N/A			E-ORP7: Provide initial communications, dispatching, and coordinating the activities of the FMT until transferr of these responsibilities to the ~~FMT Communicator and~~ FMT Coordinator in the EOF.				
49			N/A			E-OCHM2: Maintain proper records and logs				
50										

Attachment 4
DIABLO CANYON POWER PLANT ERO STAFFING ASSESSMENT MATRIX

	A	B	C	D	E	F	G	H	I	J
1	Facility	ERO Position/ Acronym	Tasks Defined by DCPPEmergency Plan (‘E-’ are E-Plan and ‘P-’ are procedure tasks)	Task Disposition (Eliminated/ Reassigned To)	Justification/ Implementing Action	Tasks Transferred to this Position per this Assessment	Position Eliminated for PSEP	Current Min Staff Yes/No	Current NRC PI Key ERO	Current Procedure(s) E-Plan Section(s)
51	TSC	Engineering Advisor TEA	E-TEA1/P-TEA1: Ensure adequate Engineering support is available to support emergency response based on plant conditions and events				No	No	No	E-Plan, Section 5.6.6; EP EF-1, Section 3.6
52			E-TEA2/P-TEA2: Evaluate the safety consequences of the occurrence and advise the Site Emergency Coordinator of appropriate response actions and onsite and offsite recommended protective measures							
53			E-TEA3/P-TEA3: Advise the Site Emergency Coordinator on technical matters relating to nuclear and radiological safety							
54			E-TEA4/P-TEA4: Coordinate plant technical support							
55			E-TEA5/P-TEA5: Advise the Site Emergency Coordinator of actions and findings of support groups							
56			E-TEA6/P-TEA6: Assist the Site Emergency Coordinator in determining personnel deployment for emergency support assignments							
57			E-TEA7: Provide operation and control of emergency data transmission systems, and review and evaluate plant data							
58	TSC	Reactor Engineer TRE	E-TRE1/P-TRE1: Perform reactor engineering assessments, trends, and recommendations	Eliminate	Reactor engineering support is not required after fuel is removed from the reactor vessels		Yes	Yes	Yes	E-Plan, Section 5.6.10; EP RB-14, Section 3.1; EP RB-14A, Section 3.2; EP EF-1, Section 3.10
59	TSC	Mechanical Engineer TME	E-TME1/P-TME1: Perform mechanical engineering assessments, trends, and recommendations	Eliminate	Based on reduced scope of operating plant systems, this task can be addressed as-needed by the Engineering Advisor in E-TEA1 and E-TEA4.		Yes	No	Yes	E-Plan, Section 5.6.8; EP EF-1, Section 3.8
60			P-TME2: Providing technical expertise for maintenance investigation and troubleshooting.	Eliminate						
61	TSC	Electrical Engineer TEE	E-TEE1/P-TEE1: Perform electrical engineering assessments, trends, and recommendations	Eliminate	Based on reduced scope of operating plant systems, this task can be addressed as-needed by the Engineering Advisor in E-TEA1 and E-TEA4.		Yes	No	Yes	E-Plan, Section 5.6.9; EP EF-1, Section 3.9
62			P-TEE2: Providing technical expertise for maintenance investigation and troubleshooting.	Eliminate						
63	TSC	Operations Advisor TOA	E-TOA1/P-TOA1: Provide general operational advice and assistance to the Site Emergency Coordinator and TSC Staff			E-TMA1/P-TMA1: Coordinate maintenance activities between TSC and OSC	No	No	Yes	E-Plan, Section 5.6.11; EP EF-1, Section 3.11
64			E-TOA2: Report initially to the Control Room to relieve the Shift Manager Supervisor of plant operational oversight responsibilities	Modify	Revise the Shift Manager to the Shift Supervisor to reflect reassigned responsibilities	E-TMA2/P-TMA2: Advise the TSC staff on plant equipment repairs assessment, site materials capabilities, and resource status as required				
65			E-TOA3: 2: Report to the TSC SEC upon Command and Control being transferred from the Shift Manager Supervisor to either the Site Emergency Coordinator or Emergency Director	Modify	Revise the Shift Manager to the Shift Supervisor to reflect reassigned responsibilities	E-TCA3/P-TCA3: Maintain continuous communications with the Control Room, transmit and receive technical data and procedural activities between the facilities				
66			P-TOA2: May orally authorize, with Site-RP-Coordinator Radiological Advisor concurrence, entry to RCAs prior to the completion of the related RWP in situations requiring immediate action	Modify	Revise the Site RP coordinator to the Radiological Advisor to reflect reassigned responsibilities					
67	TSC	Radiological Data Processor TRDP	E-TRDP1/P-TRDP1: Enable TSC radiation monitors and habitability	Reassign to the Radiological Advisor	Based on reduced scope and consequences of accidents associated with defueled reactors, this task can be completed by the Radiological Advisor without reduction in emergency response capability.		Yes	Yes	No	E-Plan, Section 5.6.4; EP EF-1, Section 3.4
68			E-TRDP2/P-TRDP2: Trend radiation levels in the plant	Reassign to the Radiological Advisor						
69			E-TRDP3/P-TRDP3: Serve as the primary contact for Site-RP-Coordinator OSC Director in the TSC	Modify and Reassign to the Radiological Advisor						
70			E-TRDP4/P-TRDP4: Perform offsite Dose Calculations if EOF is unavailable	Eliminate	Based on reduced scope and consequences of accidents associated with defueled reactors, this task is adequately performed by the EOF Dose Assessor.					
71	TSC	PPC Operator TPPC	E-TPPC1/P-TPPC1: Assist the Reactor Engineer in reading the PPC data and p P repare release pathway information for dose assessment purposes	Modify and reassign to the Radiological Advisor	Delete portion related to the Reactor Engineer (TRE position deleted). Based on reduced scope and consequences of accidents associated with defueled reactors, this task can be completed by the Radiological Advisor without reduction in emergency response capability.		Yes	No	No	E-Plan, Section 5.6.7; EP EF-1, Section 3.7
72	TSC	Maintenance Advisor TMA	E-TMA1/P-TMA1: Coordinate maintenance activities between TSC and OSC	Reassign to the Operations Advisor	Based on reduced scope of operating plant systems, this task can be addressed as-needed by the Operations Advisor.		Yes	No	No	E-Plan, Section 5.6.5; EP EF-1, Section 3.5
73			E-TMA2/P-TMA2: Advise the TSC staff on plant equipment repairs assessment, site materials capabilities, and resource status as required	Reassign to the Operations Advisor						
74	TSC	Security Advisor TSA	E-TSA1/P-TSA1: Coordinate site security activities and advise the Site Emergency Coordinator on security matters				No	No	No	E-Plan, Section 5.6.15; EP G-4, Section 3.6; EP EF-1, Section 3.15
75			E-TSA2/P-TSA2: Perform accountability in the TSC							
76			E-TSA3/P-TSA3: Coordinate evacuation or early dismissal of nonessential site personnel							
77			E-TSA4/P-TSA4: Oversee the fitness for duty program in the TSC							

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78	OSC	OSC Director ODIR	E-ODIR1/P-ODIR1: Direct activities of OSC personnel			E/P-OMC1/OELE1/OIC1: Plan and coordinate resources to conduct assessment, maintenance, repair, or installation of special equipment	No	Yes	Yes	E-Plan, Section 5.7.1; EP G-4, Section 3.3; EP EF-2, Section 3.1; EP EF-9, Section 3.4
79			E-ODIR2/P-ODIR2: Coordinate a repair plan to recover from the emergency, in cooperation with the Site Emergency Coordinator and Maintenance Operations Advisor	Modify	Revised to reassigned ERO position TOA	E/P-OMC3/OELE3/OIC3: Provide technical advice to evaluation personnel in the TSC				
			E-ODIR3/P-ODIR3: Coordinate the fabrication and set up of any special equipment necessary at the direction of the Site Emergency Coordinator and Maintenance Operations Advisor	Modify	Revised to reassigned ERO position TOA	E-OTC1/P-OTC1: Coordinate plant access and ensure personnel entering a potentially hazardous plant area are informed of (a) plant status, (b) potential hazards, (c) safety and radiation equipment required, and (d) appropriate protective equipment required				
80			E-ODIR4/P-ODIR4: Coordinate the briefing , movement, and accountability of maintenance teams/ personnel	Modify	Revised to account for eliminated tasks E-OCHM4/P-OCHM3	E-OTC3/P-OTC3: Maintain the capability of communicating with personnel engaged in operations, maintenance, or chemistry, and radiation protection emergency response activities				
81			E-ODIR5/P-ODIR5: Provide OSC status updates to the TSC			E-OTC5/P-OTC5: Assist the Control Room and TSC/OSC in communicating with response teams				
82			P-ODIR6: Coordinate with Security and the TSC if requested to develop search and rescue plans			P-ORP4: Determines 85’ access control habitability and request Site Emergency Coordinator authorization to relocate 85’ access control to a backup location				
83			P-ODIR7: Determines OSC habitability and request Site Emergency Coordinator authorization to relocate OSC personnel to a backup location							
84										
85	OSC	Mechanical Maintenance Coordinator OMC	E-OMC1/P-OMC1: Plan and coordinate resources to conduct assessment, maintenance, repair, or installation of special equipment	Reassign to OSC Director			Yes	No	No	E-Plan, Section 5.7.2; EP EF-2, Section 3.3
86			E-OMC2/P-OMC2: Provide team status updates to the Team Coordinator	Eliminate	Team Coordinator position eliminated					
87			E-OMC3/P-OMC3: Provide technical advice to evaluation personnel in the TSC	Reassign to OSC Director						
88	OSC	Electrical Maintenance Coordinator OELE	E-OELE1/P-OELE1: Plan and coordinate resources to conduct assessment, maintenance, repair, or installation of special equipment	Reassign to OSC Director			Yes	No	No	E-Plan, Section 5.7.2; EP EF-2, Section 3.3
89			E-OELE2/P-OELE2: Provide team status updates to the Team Coordinator	Eliminate	Team Coordinator position eliminated					
90			E-OELE3/P-OELE3: Provide technical advice to evaluation personnel in the TSC	Reassign to OSC Director						
91	OSC	I&C Maintenance Coordinator OIC	E-OIC1/P-OIC1: Plan and coordinate resources to conduct assessment, maintenance, repair, or installation of special equipment	Reassign to OSC Director			Yes	No	No	E-Plan, Section 5.7.2; EP EF-2, Section 3.2
92			E-OIC2/P-OIC2: Provide team status updates to the Team Coordinator	Eliminate	Team Coordinator position eliminated					
93			E-OIC3/P-OIC3: Provide technical advice to evaluation personnel in the TSC	Reassign to OSC Director						
94	OSC	Team Coordinator OTC	E-OTC1/P-OTC1: Coordinate plant access and ensure personnel entering a potentially hazardous plant area are informed of (a) plant status, (b) potential hazards, (c) safety and radiation equipment required, and (d) appropriate protective equipment required	Reassign to OSC Director			Yes	No	No	E-Plan, Section 5.7.3; EP EF-2, Section 3.4
95			E-OTC2/P-OTC2: Maintain accountability of personnel dispatched from the OSC	Eliminate	Addressed by OSC Director (E-ODIR4)					
96			E-OTC3/P-OTC3: Maintain the capability of communicating with personnel engaged in operations, maintenance, or chemistry, and radiation protection emergency response activities	Reassign to OSC Director						
97			E-OTC4/P-OTC4: Ensure response teams have been briefed on plant conditions prior to dispatch	Eliminate	Repeat of E-OTC1					
98			E-OTC5/P-OTC5: Assist the Control Room and TSC/OSC in communicating with response teams	Reassign to OSC Director						
99			P-OTC6: Determines OSC habitability and request Site Emergency Coordinator authorization to relocate OSC personnel to a backup location	Eliminate	Repeat of P-ODIR7					

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100	OSC	Site RP Coordinator ORP	E-ORP1: Provide personnel exposure monitoring and record keeping	Eliminate	Repeat of P-TRA5		Yes	No	No	E-Plan, Section 5.7.4; EP RB-3, Section 3.4; EP RB-2, Section 4.4; EP RB-4, Section 3.5; EP RB-8, Section 3.1; EP RB-12, Section 3.4; EP EF-2, Section 3.4; EP EF-9, Section 3.5
101			E-ORP2/P-ORP1: Direct in-plant surveys and establish radiation and/or contamination control and boundaries	Reassign to Radiological Advisor	Based on reduced scope and consequences of accidents associated with defueled reactors, this task can be completed by the Radiological Advisor without reduction in emergency response capability.					
102			E-ORP3/P-ORP2: Determine radiation protection access requirements for entry to radiologically controlled areas	Reassign to Radiological Advisor						
103			E-ORP4/P-ORP3: Determine when an emergency exposure authorization is required and provide justification to the Site Emergency Coordinator or Emergency Director	Reassign to Radiological Advisor						
104			E-ORP5: Keep the Radiological Advisor, OSC Director, and Team Coordinator informed of actions and findings	Eliminate						
105			E-ORP6: Coordinate briefing and dispatch of personnel into affected plant areas with the OSC <i>Director Team Coordinator</i>	Modify and Reassign to Radiological Advisor	Based on reduced scope and consequences of accidents associated with defueled reactors, this task can be completed by the Radiological Advisor without reduction in emergency response capability.					
106			E-ORP7: Provide initial communications, dispatching, and coordinating the activities of the FMT until transfer of these responsibilities to the <i>FMT-Communicator and</i> FMT Coordinator in the EOF.	Modify and Reassign to Radiological Advisor	Based on reduced scope and consequences of accidents associated with defueled reactors, this task can be completed by the Radiological Advisor without reduction in emergency response capability.					
107			P-ORP4: Determines 85' access control habitability and request Site Emergency Coordinator authorization to relocate 85' access control to a backup location	Reassign to OSC Director	Based on reduced scope and consequences of accidents associated with defueled reactors, this task can be completed by the OSC Director without reduction in emergency response capability.					
108			P-ORP5: Evaluate when KI should be issued to onsite PG&E personnel <i>and</i> , coordinate the issuance and ingestion, <i>and keep the Radiological Advisor apprised</i>	Modify and Reassign to Radiological Advisor	Based on reduced scope and consequences of accidents associated with defueled reactors, this task can be completed by the Radiological Advisor without reduction in emergency response capability.					
109	OSC	Chemistry Coordinator OCHM	E-OCHM1/P-OCHM1: Direct radiological and chemical analysis of in-plant samples	Reassign to the Radiological Advisor	Based on reduced scope and consequences of accidents associated with defueled reactors, this task can be completed by the Radiological Advisor without reduction in emergency response capability.		Yes	No	No	E-Plan, Section 5.7.5; EP RB-12, Section 3.1, 3.2; EP RB-15, Section 3.2; EP EF-2, Section 3.6
110			E-OCHM2: Maintain proper records and logs	Reassign to the Radiological Advisor						
111			E-OCHM3/P-OCHM2: Keep the Radiological Advisor informed of actions and findings	Eliminate						
112			E-OCHM4/P-OCHM3: Coordinate, brief, and dispatch personnel into the plant for sampling or analysis with the Site Radiation Protection Coordinator and Team Coordinator	Eliminate	Addressed by modified E-ODIR4					
113	OSC	Operations Coordinator OOPS	E-OOPS1/P-OOPS1: Coordinate operation's response outside the Control Room	Eliminate	Addressed generically by OSC Director (E-ODIR1 and E-ODIR2)		Yes	No	No	E-Plan, Section 5.7.6; EP EF-2, Section 3.7
114			E-OOPS2/P-OOPS2: Ensure the Control Room is updated on status of OSC team assignments	Eliminate	Addressed by E-OTC5 reassigned to the OSC Director					
115	OSC	On-site Field Monitoring Team OFMT	E-ORPT1: Perform radiation surveys around the plant site and obtain appropriate samples for analysis	Reassign to RP Technicians			Yes	No	No	E-Plan, Section 5.7.7
116			E-ORPT2: Maintain initial communications with the <i>Radiological Advisor Site-RP Coordinator</i> and subsequently with the FMT Coordinator for reporting of monitoring results and maintaining cognizance of the emergency situation	Modify and Reassign to RP Technicians	Revised to reassigned ERO position TRA					
117	OSC	Maintenance, RP, Chemistry, and Operations personnel OCRP	E-OCRP1: Provide support in planning and performing task in discipline.	Eliminate all but RP	Based on reduced scope and consequences of accidents associated with defueled reactors, these additional personnel can be called in as needed.	E-ORPT1: Perform radiation surveys around the plant site and obtain appropriate samples for analysis	Yes, except RP. Reduced RP from 6 to 2 (1 for radiological assessment and 1 for in-plant protective actions)	No	No	E-Plan, Section 5.7.8
118			N/A			E-ORPT2: Maintain initial communications with the <i>Radiological Advisor Site-RP Coordinator</i> and subsequently with the FMT Coordinator for reporting of monitoring results and maintaining cognizance of the emergency situation				

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119	EOF	Emergency Director EED	E-EED1/P-EED1: Provide direction for all emergency response operations performed by Company personnel				No	Yes	Yes	E-Plan, Section 5.8.1; EP G-1, Section 3.3; EP G-3, Section 3.5; EP OR-3, Section 3.1; EP RB-1, Section 3.2; EP RB-2, Section 4.1; EP RB-3, Section 3.3; EP RB-10, Section 3.3; EP EF-3, Section 3.1; EP EF-9, Section 3.3
120			E-EED2/P-EED2: Authorize any recommendations of the Company regarding evacuation, or other emergency measures including PARs, to non-Company emergency support groups							
121			E-EED3/P-EED3: Authorize changes in the Emergency Classification and notification of offsite authorities							
122			E-EED4/P-EED4: Authorize any extraordinary emergency measure, such as the use of Company emergency personnel exposure limits							
123			E-EED5/P-EED5: Authorize the ingestion of potassium iodine to offsite monitoring personnel and all FMTs							
124			E-EED6/P-EED6: Approve information for inclusion in media releases							
			E-EED7/P-EED7: Request assistance as necessary for onsite or offsite radiation monitoring from Federal agencies, either through the County/State Emergency Operations Center once established, or directly							
125			E-EED8/P-EED8: Maintain liaison with offsite emergency response organizations providing onsite assistance and of a coordinated recovery action plan for onsite							
126			E-EED9/P-EED9: Modify or re-organize the Emergency Response Organization based upon the type of accident and specific accident emergency response needs							
127			E-EED10/P-EED10: De-escalate the emergency classification and/or establish a recovery organization							
128			P-EED11: Determines EOF habitability and the need to relocate EOF personnel to a backup location							
129			P-EED1: Maintain communications with the NRC Executive Team Director during a hostile action based event							
130										
131	EOF	EOF Director EDIR	E-EDIR1/P-EDIR1: Direct the set up and staffing of the utility portion of the EOF and establish communications				No	No	No	E-Plan, Section 5.8.2; EP EF-3, Section 3.2
132			E-EDIR2/P-EDIR2: Provide administrative and management direction of the EOF staff in support of the event response							
133			E-EDIR3/P-EDIR3: Keep the Site Emergency Coordinator informed and serve as their contact at the EOF							
134			E-EDIR4/P-EDIR4: Coordinate access control of the EOF and UDAC portion of the building as well as the JIC with the facility security and County Sheriff's Watch Commander							
135			P-EDIR5: Oversee implementing the Fitness For Duty for the EOF staff							
136	EOF	Radiological Manager ERM	E-ERM1/P-ERM1: Develop radiological data and status information for evaluation by UDAC personnel and distribution to EOF and EOC personnel			E-EDAC1/P-EDAC1: Monitor the plant telephone bridge line	No	Yes	Yes	E-Plan, Section 5.8.3; EP RB-3, Section 3.6; EP RB-10, Section 3.8; EP EF-3, Section 3.3
137			E-ERM2: Direct the activities of field monitoring teams and the Offsite Emergency Laboratory			E-EDAC2/P-EDAC2: Direct and coordinate the DCPPEmergency Laboratory				
138			E-ERM3: In coordination with the UDAC Coordinator, maintain records, and provide findings in status reports			E-EDAC3/P-EDAC3: Coordinate the deployment of Field Monitoring Team in support of dose assessment activities				
139			E-ERM4/P-ERM2: Perform dose projections and provide radiological assessment information for the determination of PARs. ~~Advise the TSC of the PARs (Emergency Director not in EOF command), or f~~ Formulate PARs for Emergency Director approval	Modify	The performance of PARs is no longer supported in the TSC. This function is directly transferred from on-shift to the EOF.	E-EDAC4/P-EDAC4: Coordinate assessment and communications with offsite agency personnel in the UDAC				
140			E-ERM5/P-ERM3: Ensure proper exposure controls are taken for DCPPEmergency response personnel			P-EDAC5: Update the UDAC staff on the status of any plant release and of dose projection results				
141			N/A			P-EDAC6: Provide requested information about the release to the ~~JIC Technical Advisor – HP Public Information Officer~~				
142	EOF	Dose Assessor EDA	E-EDA1/P-EDA1: Perform dose projections using dose assessment computer models or manual dose calculations				No	Yes	Yes	E-Plan, Section 5.8.4; EP RB-16, Section 3.2; EP RB-17, Section 3.1; EP EF-3, Section 3.5
143			E-EDA2/P-EDA2: Update the Radiological Manager, ~~Dose Assessment Coordinator~~ , and UDAC staff on the status of any plant release and of dose projection results	Modify	The Dose Assessment Coordinator position was eliminated.					

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144	EOF	Dose Assessment Coordinator EDAC	E-EDAC1/P-EDAC1: Monitor the plant telephone bridge line	Reassign to Radiological Manager	Based on reduced scope and consequences of accidents associated with defueled reactors, this task can be completed by the Radiological Manager without reduction in emergency response capability.		Yes	No	Yes	E-Plan, Section 5.8.5; EP EF-3, Section 3.4
145			E-EDAC2/P-EDAC2: Direct and coordinate the DCPPE offsite dose assessment activities	Reassign to Radiological Manager						
146			E-EDAC3/P-EDAC3: Coordinate the deployment of Field Monitoring Team in support of dose assessment activities	Reassign to Radiological Manager						
147			E-EDAC4/P-EDAC4: Coordinate assessment and communications with offsite agency personnel in the UDAC	Reassign to Radiological Manager						
148			P-EDAC5: Update the UDAC staff on the status of any plant release and of dose projection results	Reassign to Radiological Manager						
149			P-EDAC6: Provide requested information about the release to the ~~JIC-Technical Advisor – HP Public Information Officer~~	Modify and Reassign to Radiological Manager						
150	EOF	FMT Coordinator EFCO	E-EFCO1/P-EFCO1: Dispatch and coordinate the activities of the Field Monitoring Teams (utility and County) and Offsite Emergency Lab			E-EFCM1/P-EFCM1: Establish and maintain communications with the Field Monitoring Teams	No	No	No	E-Plan, Section 5.8.6; EP RB-8, Section 3.2, 3.3; EP EF-3, Section 3.6
151			E-EFCO2/P-EFCO2: Provide recommendations regarding establishing controlled access areas and determining the boundaries of such areas in cooperation with County personnel assigned to the monitoring team			E-EFCM2/P-EFCM2: Record and report field monitoring survey, sample, and exposure information				
152			E-EFCO3/P-EFCO3: Coordinate monitoring activities for the Monitoring, Decontamination, and Reception Centers							
153			P-EFCO4: Coordinate congregate care center worker call-out process							
154			E-EFCM1/P-EFCM1: Establish and maintain communications with the Field Monitoring Teams	Reassign to FMT Coordinator	Based on reduced scope and consequences of accidents associated with defueled reactors, this task can be completed by the FMT Coordinator without reduction in emergency response capability.		Yes	No	No	E-Plan, Section 5.8.7; EP EF-3, Section 3.7
155			E-EFCM2/P-EFCM2: Record and report field monitoring survey, sample, and exposure information	Reassign to FMT Coordinator						
156	EOF	Field Monitoring Team Leaders and Drivers EFMT	E-EFMT1/P-EFMT1: Perform radiation surveys and obtain environmental samples to monitor and track any releases of radioactivity outside the Protected Area		Based on reduced scope and consequences of accidents associated with defueled reactors, the FMT tasks can be completed by two personnel		No	No	No	E-Plan, Section 5.8.8; EP RB-8, Section 3.4; EP EF-3, Section 3.8
157			E-EFMT2/P-EFMT2: Maintain communications with the FMT ~~Communicator Coordinator~~ to report environmental conditions and to obtain event information and instructions	Modify	Aligns with task reassignment					
158			E-EFMT3/P-EFMT3: Coordinate monitoring activities and reporting of results with the County personnel assigned to the monitoring team		Based on reduced scope and consequences of accidents associated with defueled reactors, the FMT tasks can be completed by two personnel					
159			E-EFMT4/P-EFMT4: Provide recommendations regarding establishing controlled access areas and determining the boundaries of such areas in cooperation with County personnel assigned to the monitoring team							
160			P-EFMT5: Assist in monitoring personnel and evaluating their exposure as required							
161			E-EHPN1/P-EHPN1: Monitor plant and environmental radiological data	Reassign to Communications Coordinator	Based on reduced scope and consequences of accidents associated with defueled reactors, this task can be completed by the Communications Coordinator without reduction in emergency response capability.		Yes	No	No	E-Plan, Section 5.8.9; EP EF-3, Section 3.9
162			E-EHPN2/P-EHPN2: Maintain radiological communications with the NRC on the HPN line	Reassign to Communications Coordinator						
163			E-EHPN3/P-EHPN3: Keep the Radiological Manager informed on the NRC requests and reporting activities	Reassign to Communications Coordinator						
164			P-EHPN4: Assist the ~~JIC Technical Advisor – HP Public Information Officer~~ to describe the release of radiological material attributable to the event	Modify and Reassign to Communications Coordinator	The JIC Technical Advisor - HP position was eliminated.					
165	EOF	Offsite Emergency Lab Analyst ELAB	E-ELAB1/P-ELAB1: Perform environmental sample analysis to monitor and track any releases of radioactivity outside the Protected Area	Eliminate	Support activity, not required for performance of Emergency Planning Functions. Position is removed from the E-Plan and is managed and controlled by EPIPs		Yes Relocated to EPIP	No	No	E-Plan, Section 5.8.10; EP EF-4, Section 3.2
166			E-ELAB2/P-ELAB2: Maintain communications with the FMT Communicator to report sample results and to obtain event information and instructions	Eliminate						
167			E-ELAB3/P-ELAB3: Perform habitability surveys and maintain contamination controls at the lab	Eliminate						
168	EOF	Engineering Liaison EENG	E-EENG1/P-EENG1: Activate and operate plant data computer systems for obtaining plant data		Based on reduced scope and consequences of accidents associated with defueled reactors, these tasks can be completed by one (1) Engineering Liaison without reduction in emergency response capability.		No, but reduced from 2 to 1	No	No	E-Plan, Section 5.8.11; EP EF-3, Section 3.11
169			E-EENG2/P-EENG2: Provide technical assistance to response personnel							
170			E-EENG3/P-EENG3: Notify and update INPO for any event of Alert or higher							
171			E-EENG4/P-EENG4: Disseminate plant status updates if automated systems fail							
172			P-EENG5: Notify and update Westinghouse Electric Corporation							

Attachment 4
DIABLO CANYON POWER PLANT ERO STAFFING ASSESSMENT MATRIX

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1	Facility	ERO Position/ Acronym	Tasks Defined by DCPP Emergency Plan (‘E-’ are E-Plan and ‘P-’ are procedure tasks)	Task Disposition (Eliminated/ Reassigned To)	Justification/ Implementing Action	Tasks Transferred to this Position per this Assessment	Position Eliminated for PSEP	Current Min Staff Yes/No	Current NRC PI Key ERO	Current Procedure(s) E-Plan Section(s)
173	EOF	Communications Coordinator ECC	E-ECC1/P-EEC1: Assist the Emergency Director in preparing and approving notifications			E-EHPN1/P-EHPN1: Monitor plant and environmental radiological data	No	Yes	Yes	E-Plan, Section 5.8.12; EP G-3, Section 3.6; EP RB-10, Section 3.7; EP EF-3, Section 3.12
174			E-ECC2/P-EEC2: Oversee the transmittal and distribution of notifications			E-EHPN2/P-EHPN2: Maintain radiological communications with the NRC on the HPN line				
175			P-EEC3: Support the Emergency Director with the PAR approval process			E-EHPN3/P-EHPN3: Keep the Radiological Manager informed on the NRC requests and reporting activities				
176			N/A			E-EOFC2/P-EOFC2: Notify corporate offices and individuals of the event				
177			N/A			P-EHPN4: Assist the <i>JIC Technical Advisor</i> – <i>HP Public Information Officer</i> to describe the release of radiological material attributable to the event				
178	EOF	Offsite Communicator EOFC	E-EOFC1/P-EOFC1: Transmit, receive, and document notification information	Eliminate	Addressed by the Communications Coordinator (E-ECC2)		Yes	Yes	No	E-Plan, Section 5.8.13; EP EF-3, Section 3.13
179			E-EOFC2/P-EOFC2: Notify corporate offices and individuals of the event	Reassign to Communications Coordinator	Based on reduced scope and consequences of accidents associated with defueled reactors, this task can be completed by the Communications Coordinator without reduction in emergency response capability.					
180	EOF	Advisor to the County EAVC	E-EAVC1/P-EAVC1: Assist the EOF Director with setup of the EOF	Eliminate	Assistance function already addressed by the EOF Director (E-EDIR1)		No	No	No	E-Plan, Section 5.8.14; EP EF-3, Section 3.14
181			E-EAVC2/P-EAVC2: Act as a technical specialist at the County EOF, informing County response staff member of plant conditions and recommended protective actions							
182			E-EAVC3/P-EAVC3: Maintain awareness of plant conditions and emergency response activities							
183			E-EAVC4/P-EAVC4: Assist in the interface between DCPP and County EOC personnel							
184	EOF	Government Relations Coordinator EGRC	E-EGRC1/P-EGRC1: Monitor actions and events from the EOF to provide information to other Government Relations Representatives and JIC personnel				No	No	No	E-Plan, Section 5.8.15; EP EF-3, Section 3.15
185			E-EGRC2/P-EGRC2: Coordinate communications between PG&E offices in Washington, D.C., Sacramento, and San Francisco							
186			E-EGRC3/P-EGRC3: Evaluate and respond to external Company governmental issues and informing the Emergency Director of corporate status and decisions							
187			E-EGRC4/P-EGRC4: Communicate PG&E public information from the JIC to County EOC and EOF personnel							
188			E-EGRC5/P-EGRC5: Support the development and review of information for use in media statements							
189			E-EGRC6/P-EGRC6: Coordinate with JIC staff for tracking and controlling rumors at the EOF							
190	EOF	Security ESEC	P-ESEC1: Provide building access controls for the EOF/county EOC	Eliminate	Security support can be called in as needed		Yes	No	No	E-Plan, Section 5.8.16; EP EF-3, Section 3.16
191	EOF	UDAC Meteorologist EUDCM	E-EUDCM1/P-EUDCM1: Determine current and forecast meteorological information	Eliminate	Support activity, not required for performance of Emergency Planning Functions. Position is removed from the E-Plan and is managed and controlled by EPIPs		Yes Relocated to EPIP	No	No	E-Plan, Section 5.8.17; EP EF-3, Section 3.19
192	EOF	Security Liaison ESECL	E-ESECL1/P-ESECL1: Provide assistance to the TSC Security Advisor and the EOF Director as requested	Eliminate	Assistance function already performed by Emergency Director and TSC Security Advisor		Yes	No	No	E-Plan, Section 5.8.18; EP EF-3, Section 3.10
193	EOF	General Office Technical Liaison EGOL	E-EGOL1/P-EGOL1: Provide a single point of contact between the EOF and the company emergency operations center	Eliminate	Support activity, not required for performance of Emergency Planning Functions. Position is removed from the E-Plan and is managed and controlled by EPIPs		Yes Relocated to EPIP	No	No	E-Plan, Section 5.8.19; EP EF-3, Section 3.20
194			E-EGOL2/P-EGOL2: Respond to the company emergency operations center when requested or directed to do so	Eliminate						
195			E-EGOL3/P-EGOL3: Coordinate with the Government Relations Coordinator to ensure alignment between DCPP and corporate response	Eliminate						

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DIABLO CANYON POWER PLANT ERO STAFFING ASSESSMENT MATRIX

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1	Facility	ERO Position/ Acronym	Tasks Defined by DCPP Emergency Plan (‘E-’ are E-Plan and ‘P-’ are procedure tasks)	Task Disposition (Eliminated/ Reassigned To)	Justification/ Implementing Action	Tasks Transferred to this Position per this Assessment	Position Eliminated for PSEP	Current Min Staff Yes/No	Current NRC PI Key ERO	Current Procedure(s) E-Plan Section(s)
196	JIC	Company Spokesperson JCS	E-JCS1/P-JCS1: Consult with the Public Info Officer and other Company officials to provide the following in an emergency: (a) characterize Company responsibility for the event, (b) characterize concern for any impacts to public, and (c) describe Company emergency response actions				No	No	No	E-Plan, Section 5.9.1; EP EF-10, Section 3.3
197			E-JCS2/P-JCS2: Participate in media briefings to provide additional technical expertise and presentation of the Company at the senior leadership level							
198			E-JCS3/P-JCS3: Participate in the Emergency Director video conference briefings and assist with the development of media briefing talking points							
199			E-JCS4/P-JCS4: Work closely with Marketing and Communications staff to assist with community issues related to the emergency							
200	JIC	JIC Director JDIR	E-JDIR1/P-JDIR1: Act as a point of contact for other facility managers and maintain current emergency status information throughout the event				No	No	No	E-Plan, Section 5.9.2; EP EF-10, Section 3.1
201			E-JDIR2/P-JDIR2: Oversee the functional organization of the JIC, including facility setup, staffing, and operation, fitness-for-duty of ERO personnel (including behavioral assessments), coordinate additional resources and personnel, JIC security, administrative support, parking ,etc.							
202			E-JDIR3/P-JDIR3: Participate in intra facility video conference briefings to obtain approved public information							
203			E-JDIR4/P-JDIR4: Coordinate the collection of information and the development of draft media releases and media briefing talking points <i>by the- News Writer and Technical Advisors for approval</i> by the Public Info Officer	Modify	Remove eliminated positions					
204			E-JDIR5/P-JDIR5: Coordinate with the Public Info Officer on any changes, corrections, or additions to media releases and media briefing talking points and ensure that they are available for use in time for media briefings							
205			E-JDIR6/P-JDIR6: Coordinate with the Government Relations Coordinator for investigating unanswered questions posed by the media and resolving reported rumors							
206			E-JDIR7/P-JDIR7: Ensure the JIC is adequately staffed at all times during an emergency							
207			E-JDIR8/P-JDIR8: Communicate with the Company Spokesperson while in transit for providing status of facility readiness, where to go first, key issues for the NRC, etc.							
208	JIC	Public Info Officer JPIO	E-JPIO1/P-JPIO1: Coordinate media briefings and any follow-up media interviews including plant visits			E-JNW1/P-JENW1: Collect facts and develop media briefing talking points and media releases, as directed using approved information from video conferences, Emergency Notification forms and tailboard forms	No	No	No	E-Plan, Section 5.9.3; EP EF-10, Section 3.2
209			E-JPIO2/P-JPIO2: Serve as a PG&E Spokesperson and lead monitor during media briefings			E-JAPIO4/P-JAPIO4: Attend pre-briefings conducted with the SLO County Public Info Officer to review the agenda, logistics, and key messages used during each media briefing				
210			E-JPIO3/P-JPIO3: Review and approve public information prior to its release to the media and coordinate with the JIC Director for clarity			E-JAPIO7/P-JAPIO7: <i>Advise the Public Info Officer of rumors as reported by the, Review and assess media Marketing and Communications, or News Media Liaisons coverage and NRC Event Reports</i>				
211			E-JPIO4/P-JPIO4: Participate in intra facility video conference briefings to obtain approved public information			P-JAPIO9: Provide talking points to Marketing and Communications/EOC JIC				
212			E-JPIO5/P-JPIO5: Coordinate media briefings with the Company Spokesperson, Company officials, the SLO County Public Info Officer, and other participating government agencies							
213			E-JPIO6/P-JPIO6: Develop communications strategies, key messages, and other material for the media							
214			E-JPIO7/P-JPIO7: Identify Company Spokesperson(s) and other Company representatives at media briefings							
215			E-JPIO8/P-JPIO8: Provide regular communications to the Marketing Communications Department regarding the status of media briefings and approved and released information, and additional staffing needs							
216			P-JPIO9: Notify Marketing and Communications to activate the Marketing and Communications/EOC JIC Plan							

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DIABLO CANYON POWER PLANT ERO STAFFING ASSESSMENT MATRIX

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1	Facility	ERO Position/ Acronym	Tasks Defined by DCPPEmergency Plan (‘E-’ are E-Plan and ‘P-’ are procedure tasks)	Task Disposition (Eliminated/ Reassigned To)	Justification/ Implementing Action	Tasks Transferred to this Position per this Assessment	Position Eliminated for PSEP	Current Min Staff Yes/No	Current NRC PI Key ERO	Current Procedure(s) E-Plan Section(s)
217	JIC	Assistant PIO JAPIO	E-JAPIO1/P-JAPIO1: Under direction of the Public Info Officer, serve as a PG&E spokesperson	Eliminate	Addressed by the Public Info Officer (E-JPIO2)		Yes	No	No	E-Plan, Section 5.9.4; EP EF-10, Section 3.4
218			E-JAPIO2/P-JAPIO2: Provide communications to Marketing and Communications Department	Eliminate	Addressed by the Public Info Officer (E-JPIO8)					
219			E-JAPIO3/P-JAPIO3: Coordinate with the Public Info Officer and News Writer to ensure timely and accurate information is release to the public	Eliminate	Addressed by the Public Info Officer (E-JPIO3) because the News Writer position is eliminated					
220			E-JAPIO4/P-JAPIO4: Attend pre-briefings conducted with the SLO County Public Info Officer to review the agenda, logistics, and key messages used during each media briefing	Reassign to Public Info Officer						
221			E-JAPIO5/P-JAPIO5: Coordinate the development of media releases with the News Writer	Eliminate	Addressed by task E-JNW1 that as reassigned to the Public Info Officer					
222			E-JAPIO6/P-JAPIO6: Assist the Public Info Officer in coordinating media briefings and any other media interviews including plant visits	Eliminate	Assistance function already performed by the Public Info Officer (E-JPIO5)					
223			E-JAPIO7/P-JAPIO7: Advise the Public Info Officer of rumors as reported by the, Review and assess media Marketing and Communications, or News Media Liaisons coverage and NRC Event Reports	Modify and Reassign to Public Info Officer						
224			E-JAPIO8/P-JAPIO8: Help to develop key messages for use with the media and ensure formality and consistency of Company presentations during media briefings	Eliminate	Assistance function already performed by the Public Info Officer (E-JPIO6)					
225			P-JAPIO9: Provide talking points to Marketing and Communications/EOC JIC	Reassign to Public Info Officer						
226			P-JAPIO10: During a security event, may be assigned by the PIO to the ICP, if needed	Eliminate	ICP support can be called in as needed					
227	JIC	Technical Advisor - HP JTHP	E-JTHP1/P-JTHP1: Assist the News Writer in verifying and writing of approved media briefing talking points and media releases	Eliminate	News Writer position eliminated and reassigned to the Public Info Officer		Yes	No	No	E-Plan, Section 5.9.5; EP EF-10, Section 3.5
228			E-JTHP2/P-JTHP2: Coordinate with the EOF and JIC staff for maintaining current status of projected dose, radiological plant conditions, and field monitoring	Eliminate	Addressed by the JIC Director (E-JDIR1)					
229			E-JTHP3/P-JTHP3: Analyze radiological data for the JIC personnel	Eliminate	Addressed by the EOF Radiological Manager (reassigned P-EDAC6)					
230			E-JTHP4/P-JTHP4: Describe radiological conditions in layperson's terms during media briefings	Eliminate	Addressed by the Public Info Officer approval of public information (E-JPIO3)					
231	JIC	Technical Advisor - OPS JTOP	E-JTOP1/P-JTOP1: Assist the News Writer in verifying and writing of approved media briefing talking points and media releases	Eliminate	News Writer position eliminated and reassigned to the Public Info Officer		Yes	No	No	E-Plan, Section 5.9.6; EP EF-10, Section 3.6
232			E-JTOP2/P-JTOP2: Provide technical assistance to assure that approved information is accurately described in general and understandable terms for the media briefing talking points and media briefings	Eliminate	Addressed by the Public Info Officer approval of public information (E-JPIO3)					
233			E-JTOP3/P-JTOP3: Observe the Emergency Director video conference briefings and interpret technical information for the Public Info Officer, Assistant Public Info Officer, and the News Writer	Eliminate	Support activity, not required for performance of Emergency Planning Functions.					
234			E-JTOP4/P-JTOP4: Maintain current information on plant conditions and provide updates to the JIC Director, Public Info Officer, and the Company Spokesperson	Eliminate	Addressed by the JIC Director (E-JDIR1)					
235			E-JTOP5/P-JTOP5: Review NRC Event Reports for information on event and report discrepancies to the Public Info Officer	Eliminate	Addressed by modified task E-JAPIO7 reassigned to the Public Info Officer					
236			E-JTOP6/P-JTOP6: Assist JIC staff to ensure technically correct information is released	Eliminate	Assistance function already performed by the Public Info Officer (E-JPIO3)					
237			E-JTOP7/P-JTOP7: Present plant information to the media as directed by the Public Info Officer	Eliminate	Addressed by the Public Info Officer position (E-JPIO2)					

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238	JIC	News Media Liaison - Site JNMS	E-JNMS1/P-JNMS1: Operate the computer and display system used to project graphics and other information during media briefings	Eliminate	Support activity, not required for performance of Emergency Planning Functions. Position is removed from the E-Plan and is managed and controlled by EPIPs		Yes Relocated to EPIP	No	No	E-Plan, Section 5.9.7; EP EF-10, Section 3.7
239			E-JNMS2/P-JNMS2: Assume the "News Media Liaison - Corporate" responsibilities on an interim basis until relieved by Company news personnel	Eliminate						
240			E-JNMS3/P-JNMS3: Record any unanswered questions by the Company Spokesperson or Public Info Officer during media briefings	Eliminate						
241			E-JNMS4/P-JNMS4: Distribute approved media documents	Eliminate						
242			P-JNMS5: Receive rumors and misinformation from the Marketing and Communications/EOC JIC	Eliminate						
243			P-JNMS6: Track rumors and misinformation, and provide them to the Assistant PIO	Eliminate						
244	JIC	News Media Liaison - Corp JNMC	E-JNMC1/P-JNMC1: Coordinate with media personnel arriving at the JIC and provide approved background information and facility orientation	Eliminate	Support activity, not required for performance of Emergency Planning Functions. Position is removed from the E-Plan and is managed and controlled by EPIPs		Yes Relocated to EPIP	No	No	E-Plan, Section 5.9.8; EP EF-10, Section 3.8
245			E-JNMC2/P-JNMC2: Act as an interface for the Marketing and Communications Department for the media in between briefings	Eliminate						
246			E-JNMC3/P-JNMC3: Record any unanswered questions by the Company Spokesperson or Public Info Officer during media briefings	Eliminate						
247			E-JNMC4/P-JNMC4: Advise the Public Info Officer of relevant information obtained from the media	Eliminate						
248			E-JNMC5/P-JNMC5: Distribute approved media documents	Eliminate						
249			P-JNMC6: During a security event, may be assigned by the PIO to act as an APIO to the ICP, if needed	Eliminate						
250	JIC	News Writer JNW	E-JNW1/P-JENW1: Collect facts and develop media briefing talking points and media releases, as directed using approved information from video conferences, Emergency Notification forms and tailboard forms	Reassign to Public Info Officer	Based on reduced scope and consequences of accidents associated with defueled reactors, this task can be completed by the Public Info Officer without reduction in emergency response capability.		Yes	No	No	E-Plan, Section 5.9.9; EP EF-10, Section 3.9
251	JIC	JIC Security JSEC	E-JSEC1/P-JSEC1: Provide access control for JIC areas	Eliminate	Support activity, not required for performance of Emergency Planning Functions.		Yes	No	No	E-Plan, Section 5.9.11; EP EF-10, Section 3.11

Enclosure 1
PG&E Letter DCL-21-062
PG&E Letter DIL-21-007

Attachment 5

OFFSITE RESPONSE ORGANIZATION CONCURRENCE LETTERS



March 24, 2021

Thomas Jones
Director, Strategic Initiatives
Pacific Gas and Electric Company
Diablo Canyon Power Plant
PO Box 56
Avila Beach, CA 93424

Subject: Review of Diablo Canyon Power Plant Proposed Post-Shutdown
Emergency Plan (PSEP) License Amendment Request (LAR)

Dear Mr. Jones:

On November 30, 2020, the California Governor's Office of Emergency Services (Cal OES) received the draft proposed changes to the Diablo Canyon Power Plant Emergency Plan from Pacific Gas and Electric Company (PG&E) for the PSEP LAR. Cal OES provided comments to the proposed changes on March 11, 2021 and PG&E provided responses on March 15, 2021. Based on PG&E's responses to our comments, Cal OES has no further comments on the proposed license amendment request at this time. Our staff found no issues that affect the State level response in the unlikely event of an accident at a defueled nuclear power plant.

If you have any questions concerning this correspondence, please contact me at (916) 845-8772.

Sincerely,

MICHAEL WARREN
Manager, Radiological Preparedness Unit

cc: Michael Ginn, DCP
Samantha Caldwell, DCP
Cindy Nolan, California Governor's Office of Emergency Services





COUNTY OF SAN LUIS OBISPO
ADMINISTRATIVE OFFICE – OFFICE OF EMERGENCY SERVICES
Wade Horton County Administrative Officer

March 24, 2021

Thomas Jones
Director, Strategic Initiatives
Pacific Gas and Electric Company
Diablo Canyon Power Plant
PO Box 56
Avila Beach, CA 93424

Subject: Review of Diablo Canyon Power Plant Proposed Post-Shutdown Emergency Plan
License Amendment Request

Dear Mr. Jones:

The County of San Luis Obispo has received and reviewed the proposed changes to the Diablo Canyon Power Plant Emergency Plan from Pacific Gas and Electric (PG&E) for the Post-Shutdown condition. On February 23, 2021, the County provided initial feedback on the proposed changes and have since reviewed responses provided by PG&E. Based on these responses, the County has no further comments on the proposed license amendment request at this time.

The County appreciates the continued coordination with PG&E and requests inclusion in any future revisions of the proposed Post Shutdown Emergency Plan.

Sincerely,

A handwritten signature in blue ink, appearing to read "Wade Horton", enclosed within a large, loopy blue oval.

Wade Horton
County Administrative Officer

Supplemental Action

Pacific Gas and Electric Company will take the following supplemental action in support of this submittal:

Supplemental Action	Due Date
Diablo Canyon Power Plant will perform a drill to confirm the ability of the post-shutdown Emergency Response Organization (ERO) to perform the necessary functions of each emergency response facility and to utilize the post-shutdown procedures being developed depicting the revised assignment of duties. State and local response organizations will be offered the opportunity to participate, and the Nuclear Regulatory Commission and Federal Emergency Management Agency will be provided advance notice and the opportunity to observe drill activities.	Prior to implementation of the Post-Shutdown Emergency Plan