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September 12, 2018

PG&E Letter DCL-18-064

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk 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
<u>License Amendment Request 18-01</u>
Request to Revise Emergency Plan Response Organization Staffing and Augmentation

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 Nos. DPR-80 and DPR-82 for Units 1 and 2 of the Diablo Canyon Power Plant (DCPP), respectively. The enclosed license amendment request (LAR) proposes to revise the Emergency Plan for DCPP to extend staff augmentation times for Emergency Response Organization functions.

The changes in this LAR are not required to address an immediate safety concern. PG&E requests approval of this LAR by September 12, 2019. PG&E requests the license amendments be made effective upon NRC issuance, and to be implemented within 180 days from the NRC approval of the license amendments to permit program changes and training.

The enclosure to this letter contains the evaluation of the proposed change along with the following attachments:

Attachment 1: Proposed Emergency Plan Sections (Mark-up)

Attachment 2: Proposed Emergency Plan Sections (Retyped)

Attachment 3: NUREG-0654 Table B-1 Comparative Chart

Attachment 4: Offsite Response Organization Concurrence Letters

Attachment 5: Map of Offsite Pressurized Ion Chamber Locations

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

This amendment application does not involve a significant hazard consideration as determined per 10 CFR 50.92, "Issuance of amendment." Pursuant to 10 CFR 51.22, "Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review," Section (b), no environmental impact statement or environmental assessment needs to be prepared in connection with the issuance of this amendment.

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, "Notice for public comment; State consultation," PG&E is sending a copy of this proposed amendment to the California Department of Public Health.

If you have any questions or require additional information, please contact Mr. Hossein Hamzehee at 805-545-4720.

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

Executed on September 12, 2018.

Sincerely.

James M. Welsch

Vice President, Nuclear Generation and Chief Nuclear Officer

mirm/4557/SAPN 50993706

Enclosure

CC:

Diablo Distribution

cc/enc: Kriss Kennedy, NRC Region IV Administrator

Chris W. Newport, NRC Senior Resident Inspector

Gonzalo L. Perez, Branch Chief, California Department of Public Health

Balwant K. Singal, NRC Senior Project Manager

Evaluation of Proposed Change

License Amendment Request 18-01 Request to Revise Emergency Plan Response Organization Staffing and Augmentation

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ATTACHMENTS:

- 1. Proposed Emergency Plan Sections (Mark-up)
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- 3. NUREG-0654 Table B-1 Comparative Chart
- 4. Offsite Response Organization Concurrence Letters
- 5. Map of Offsite Pressurized Ion Chamber Locations

1. SUMMARY DESCRIPTION

Pacific Gas & Electric Company (PG&E) proposes revisions to the Diablo Canyon Power Plant (DCPP), Units 1 and 2, Emergency Plan. PG&E completed a staffing analysis in July of 2018 of on-shift responsibilities resulting from the effects associated with the proposed changes. Additionally, PG&E also completed a functional analysis of the augmented Emergency Response Organization (ERO) positions based on extended response times and completion of Major Tasks as outlined in NUREG-0654/FEMA-REP-1, Revision 1. The analyses supported this request to make the following changes to the ERO while maintaining the site's ability to protect public health and safety.

- Remove maintenance personnel from on-shift.
- Remove administrative support positions for Technical Support Center (TSC), Operational Support Center (OSC), Emergency Operations Facility (EOF), and the Joint Information Center (JIC) from Appendix A Emergency Plan Figures.
- Apply the term 'facility activation' to TSC, OSC, and EOF facility response in a consistent manner as measured from event declaration.
- Reconfigure the Onsite (out-of-plant) (outside the protected area) Field Monitoring Team (FMT) to utilize one Chemistry and Radiation Protection (C&RP) Technician and one qualified driver.
- Extend the requirement for dispatch of the Offsite FMT from 60 to 90 minutes for an Alert or higher classification.
- Extend response time for some TSC, OSC, EOF, and JIC positions to 90 minutes.
- Operations Advisor, a 60-minute response position, reports to the control room (CR) to provide on-shift support for plant operational oversight, allowing the Shift Manager (SM) to focus on the event classification.

Revised figures delineating positions associated with facility activation are included in the proposed DCPP Emergency Plan. This change allows for the transfer of Classification, State/local Notification, Dose Assessment, Protective Action Recommendation (PAR), and Emergency Exposure functions from the CR in advance of 90 minutes when minimum staff positions are met as defined in the proposed Emergency Plan.

The changes in staff augmentation response times, reduction in the number of

augmented C&RP Technician responders and removal of maintenance personnel from on-shift are considered a reduction in Emergency Plan effectiveness as defined in 10 CFR 50.54(q)(1)(iv). In accordance with 10 CFR 50.54(q)(4), changes to a licensee's emergency plan that reduce the effectiveness of the plan may not be implemented without prior Nuclear Regulatory Commission (NRC) approval and are submitted as a license amendment request (LAR) in accordance with 10 CFR 50.90.

2. DETAILED DESCRIPTION

2.1 Proposed Changes

Brief descriptions of the proposed changes to the Emergency Plan are provided below. The justification for each change is discussed in Section 3.2. The specific wording changes of the Emergency Plan pages are provided in Attachments 1 and 2 to this enclosure as marked-up and retyped copies, respectively.

- a. Section 1, "Definitions," is revised to add the definition and criteria for facility activation.
- b. Section 4.1.2.2, "Alert Purpose," is reworded to reflect consistent application of 'facility activation' and 'staffed' in reference to emergency response facilities.
- c. Section 4.1.2.3, "Alert General Actions of Plant Staff," is revised to reflect emergency response staffing, and is also revised to reflect dispatch of monitoring teams at the Alert classification level.
- d. Section 4.1.3.3, "Site Area Emergency General Actions of Plant Staff," is reworded to reflect consistent application of 'facility activation' and 'staffed' in reference to emergency response facilities, and is also revised to reflect changing dispatch of the monitoring teams to the Alert classification level.
- e. Section 4.1.4.3, "General Emergency General Actions of Plant Staff," is reworded to reflect consistent application of 'facility activation' and 'staffed' in reference to emergency response facilities, and is also revised to reflect changing dispatch of the monitoring teams to the Alert classification level.
- f. Section 5.1.3, "Minimum On-Shift ERO Staffing Requirements," is revised to reflect change in number of minimum positions on-shift.
- g. Section 5.3.2, "Shift Manager," is revised to remove references to performance of Shift Technical Advisor (STA) functions.

- h. Section 5.3.3, "Shift Foreman," is revised to add reference to performance of the STA function.
- i. Section 5.3.6, "Shift Phone Talker," is revised to add reference to a second on-shift position provided to support federal notifications.
- Section 5.6.11, "Operations Advisor," is revised to reflect initial response to the Control Room.
- k. Section 5.6.16, "Administrative Advisor," is removed.
- I. Section 5.6.17, "TSC Administrative Support," is removed.
- m. Section 5.6.18, "SEC Admin Assistant," is removed.
- n. Section 5.7.8, "Onsite Field Monitoring Teams (FMTs)," is revised to reflect initial communications with the Work Control Shift Foreman.
- o. Section 5.7.9, "OSC Administrative Support," is removed.
- p. Section 5.8.17, "EOF Administrative Support," is removed.
- g. Section 5.8.18, "ED Admin Assistant," is removed.
- r. Section 5.9.10, "JIC Administrative Support," is removed.
- s. Section 5.10, "Transfer of Command and Control Functions," is added to clearly identify the process for transfer of command and control related activities.
- t. Section 5.18, "Table 5-1A," is revised to reflect proposed changes in onshift and augmented staffing. Additionally, Table 5-1A and Table 5-1B are combined into a single table relabeled "Table 5-1."
- u. Section 5.18, "Table 5-1B," is deleted and combined into new Table 5-1.
- v. Section 5.20, "Figure 5-2, TSC Organization," is revised to reflect new minimum staffing for facility activation.
- w. Section 5.21, "Figure 5-3, OSC Organization," is revised to reflect new minimum staffing for facility activation as well as delineate 60 and 90-minute response positions.
- x. Section 5.22, "Figure 5-4, EOF Organization," is revised to reflect new minimum staffing for facility activation and reflect reporting of the

Operations Advisor to the CR in 60 minutes.

- y. Section 5.23, "Figure 5-5, JIC Organization," is revised to reflect application of facility 'staffing' and removal of references to 'activation'.
- z. Section 6.1.2, "Emergency Response Facility Activation," is revised to reflect use of terms 'staffed' and 'activated' as well as timeframe for emergency response facility activation requirements.
- aa. Section 6.3, "Activation of the Corporate Emergency Organization," is revised to apply 'staffing' as reference to organizations not responsible for command and control functions.
- bb. Section 6.5.4, "Assessing Release magnitude," is revised to reflect use of term 'staffed' for the Unified Dose Assessment Center (UDAC) group in the EOF.
- cc. Section 6.7.3.4, "Evacuation Procedure," is revised to reflect removal of the term 'activated' for organizations not responsible for command and control functions.
- dd. Section 7.1.1.2, "Emergency Function," is revised to better reflect ability to transfer command and control to either the TSC or EOF.
- ee. Section 7.1.4.2, "Emergency Function," is revised to reflect that the TSC may have command and control prior to transferring to the EOF.

2.2 Reason for the Proposed Changes

The proposed change to extend augmented response timeframes and reduce the number of augmented C&RP Technicians is needed to address limitations on the number of personnel available to respond to the site in 60 minutes for Section 4, "Emergency Conditions." Increasing the augmentation times to 90 minutes increases the population of eligible personnel available to fill response positions and adds valuable expertise. The proposed change will not be applied as permission to delay response to an event.

The current DCPP Emergency Plan requires response by 10 C&RP Technicians in 60 minutes. The number of C&RP Technicians augmented responders meets NUREG-0654, Revision 1, Table B-1 values for augmented response. The proposed changes allow for replacement of the C&RP Technician currently used as the Onsite (out-of-plant) FMT driver, with other qualified personnel. The current DCPP Emergency Plan requires the dispatch of two (2) Offsite FMTs and one (1) Onsite (out-of-plant) FMT at 60 minutes following the declaration of a Site Area Emergency or higher classification. The

proposed change moves up the requirement for the dispatch of the Onsite (out-of-plant) FMT to 60 minutes following the declaration of an Alert or higher, and extends augmentation of the two (2) Offsite FMTs to 90 minutes following the declaration of an Alert or higher classification level. The extension of the augmentation time for the Offsite FMT is supported by the DCPP real-time radiation monitoring system which provides continuous measurement and reporting to CR, TSC, EOF, and local and state agencies of gamma radiation dose rates in the environment around DCPP so that informed decisions to protect the public can be made. Additional detail on the DCPP radiation monitoring system is provided in Section 3.2.4 of this Enclosure.

In the On-Shift Staffing Analysis (OSA) for the analyzed events, there were no actions requiring response by maintenance personnel for the first 90 minutes after event classification. The diverse and redundant nature of the emergency core cooling system (ECCS) obviates the need for maintenance activities as part of the initial response to an event. As a result, the proposed change removes maintenance positions from on-shift and makes maintenance positions available for augmentation at 60 and 90 minutes to address equipment repair activities. Details associated with ECCS are addressed in Section 3.2.5 of this Enclosure. The proposed change maintains the requirement for augmentation of the Electrical and Mechanical Maintenance positions at 60 minutes, and extends augmentation of an Instrument and Controls (I&C) Maintenance position to 90 minutes in accordance with NRC guidance documents.

The current DCPP Emergency Plan identifies 60-minute response positions in the TSC, OSC, EOF and JIC. The proposed change maintains 60-minute response requirements for 4 C&RP Technicians for performance of in-plant surveys, protective action functions, and Onsite (out-of-plant) FMT; as well as 1 Electrical and 1 Mechanical Maintenance position for the performance of initial trouble shooting activities. The proposed change revises the response location for the TSC Operations Advisor, a 60-minute augmented position, to the CR to support plant oversight activities. These changes provide the required resources for performance of oversight, assessment, and troubleshooting activities such that maintaining command and control functions in the CR for an additional 30 minutes does not result in any conflicting duties for on-shift personnel. These changes support the proposed change to extend response times for positions required for emergency response facility (ERF) activation to 90 minutes.

The TSC and OSC positions of Administrative Advisor, as well as TSC, OSC, EOF and JIC Administrative Support positions do not perform activities required to implement the DCPP Emergency Plan. As a result, PG&E proposes to remove these positions from the DCPP Emergency Plan and maintain appropriate administrative positions in the site emergency plan implementing procedures.

The proposed change adds the definition of 'facility activated' as it relates to ERF readiness to accept emergency response functions and standardizes the criteria to better align with NRC guidance. The proposed change defines activation criteria to clearly identify the positions which must be filled in the TSC, OSC, and EOF so that transfer of command and control functions (Classification, Notification, PARs, Dose Assessment, Emergency Exposure Authorization) from the CR can be completed and on-shift personnel can be relieved of these duties. For the OSC, 'facility activated' corresponds to the position required to transfer oversight of in-plant teams from the CR. The term 'staffed' is applied to the JIC which does not have responsibility for any command and control functions. Revised figures have been added to the DCPP Emergency Plan that delineate positions associated with facility activation. This change allows for the transfer of command and control functions from the CR in advance of 90 minutes when minimum staff positions are filled.

Crediting technological advances available for on-shift responders, crediting the onsite/offsite real-time radiation monitoring system, maintaining initial dispatch of an Onsite (Out-of-plant) FMT and maintenance personnel within 60 minutes of an Alert or higher classification, reducing the number of immediate C&RP Technician responders and extending the augmentation response times for TSC, OSC, and EOF positions to 60 and 90 minutes are practical and prudent alternate methods of ensuring effective emergency response.

Details associated with the revised ERO and key responsibilities and tasks as identified in NUREG-0654 Revision 1, are included in Section 3.2 of this Enclosure.

2.3 DCPP Emergency Plan Background

The DCPP Emergency Plan, Revision 3.03, was reviewed and approved by the NRC as documented by NRC Safety Evaluation Report, Supplement 20 dated December 1983 (Reference 1), and NRC letter from L.R. Norderhaug to J.O. Schuyler, dated December 1, 1983 (Reference 9). The ERO staffing plan was implemented in the DCPP Emergency Plan, Table 5.1-1, "Comparison of Minimum Diablo Canyon Shift Staffing with Table B-1 of NUREG-0654," and Table 6.1-1, "Comparison of Minimum Diablo Canyon Capability for Additions with Table B-1 of NUREG-0654." These figures provided the site commitment to meet the guidance for on-shift staffing and augmentation goals including 60-minute responders established in Table B-1 of NUREG-0654, Revision 1.

DCPP has four ERFs augmenting the on-shift staff: the TSC, the OSC, the EOF, and the JIC. During an emergency, the SM initially assumes emergency response command and control until relieved by the Site Emergency Coordinator (SEC) or Emergency Director (ED).

DCPP uses four standard levels of emergency classification as described in NUREG-0654, Revision 1. Augmentation of the on-shift staff for an Unusual Event is optional and is left to the discretion of the SM. At the Alert or higher emergency classification levels, the TSC, OSC, EOF, and JIC are 'facility activated.'

3. TECHNICAL EVALUATION

3.1 Technical Analysis

This section discusses technological changes in plant systems, dose assessment, procedures and training which have been implemented to better support on-shift functions and ease operator burden. An on-shift analysis utilizing NEI 10-05, "Assessment of On-Shift Emergency Response Organization Staffing and Capabilities," methodology determined that the proposed changes did not result in conflicting duties for on-shift personnel.

3.1.1 Plant Computer System

The original DCPP plant computer system for monitoring plant process parameters was the Westinghouse P-250. In addition, a separate safety parameters display system (SPDS) was implemented as part of the emergency response facility data system (ERFDS). The ERFDS for each unit was a computer based system consisting of a data acquisition system, two master receivers, two data handler computers, and two SPDS computers, each feeding a separate SPDS channel. Each SPDS channel was implemented with a color video monitor on the main control panel. Each channel also included a redundant video generator which provided a color video monitor in the TSC.

The current DCPP plant computer is the plant process computer (PPC) which provides displays and alarms that are used to assist plant operators in performing their work. The PPC system does this by presenting the operator with process data representing either the current or historical state of the plant. Plant signals can be displayed as trends of plant parameters, as alarms of abnormal conditions, and can provide a data base of information from which the operators can select data of interest. The PPC system interfaces with both safety-related and non-safety-related instrument systems; the solid state protection system; the main annunciator; plant data network; and miscellaneous plant systems,

thereby providing activation of CR alarms for many plant conditions and data input for the emergency assessment and response system (EARS), the meteorological data system, and SPDS. The PPC is designed to be fed from a separate power source for each unit. The PPC utilizes uninterruptible power for at least 4 hours during a loss of AC power to assist the plant operators when shutting the plant down. The workstations are the plant operator's primary human-machine interfaces (HMI) to the PPC. The HMI network is configured such that the failure of either of the network interfaces that connect the displays to the PPC servers, does not cause a complete loss of operator displays in the CR.

Benefits of the upgraded system include:

- programming capability for automated response such as indication of critical parameter alarms,
- improved plant monitoring capability for emergency functions,
- fewer keystrokes required to switch between graphical displays,
- real time plant data available through graphical displays, and
- real time read-only plant data available on any desktop computer in the ERFs.

3.1.2 Dose Assessment

Specifically designed displays have been developed for obtaining the necessary information for performing dose assessment. These displays are available through the PPC and include specific information related to area radiation monitor (ARM) readings, process radiation monitor readings, effluent release paths, and meteorological data.

3.1.2.1 Previous on-shift dose assessment

In 1983, dose assessment was performed using the EARS which operated on a mainframe located in the TSC using a terminal in the CR. The system received data from offsite and onsite monitors and provided plume projection maps and other assessment related information to centers located both offsite and onsite. Manual dose assessment capability existed as a backup to the automated system.

3.1.2.2 Current on-shift dose assessment

The dose assessment process currently used by the site is an EARS/ meteorological information and dose assessment system (MIDAS) methodology, capable of performing dose assessment using multiple, simultaneous releases. MIDAS includes a region-specific meteorology input atmospheric dispersion model which accounts for non-linear plume transport due to meteorology differences created by sea breeze, hill, and valley influences. Each EARS/MIDAS workstation has the capability to graphically display plume projection maps. Displayed information may be selected from several forms of calculated data and map presentations with superimposed plume boundaries, dose rates, airborne concentrations, population centers, and evacuation routes. This system auto-populates the necessary meteorological and radiation monitor data as well as allowing for manual input by users as desired. Backup dose assessment capability is maintained by using laptops (where data is entered manually).

3.1.3 Call-Out Systems Improvements

In 1983, key emergency organizations established "on-call" supervisors. The positions were selected to be compatible with the capabilities of additional staff, to assist the shift staff as outlined in NUREG-0654 Table B-1. Call-out of personnel was accomplished by telephone call trees or with individual radio pagers. When an emergency occurred, individuals were called in order of the following priority:

- a. Plant Manager
- b. Plant Superintendent
- c. Power Plant Engineer
- d. Technical Assistant to the Plant Manager

The SEC would then decide additional staffing above the minimum required by the classification. Those personnel would then be individually notified by telephone.

Improvements incorporated to the ERO notification process since that time include the use of a voice automated notification system, an offsite, web based, hosted third party application that provides rapid notifications via multiple devices. The system includes use of independent systems that provide primary and secondary sources for the call out process to improve system reliability.

3.1.4 Procedure Improvements

3.1.4.1 Emergency Operating Procedures (EOPs)/Abnormal Operating Procedures (AOPs)

Since the original Emergency Plan approval, EOPs and AOPs have been improved through industry initiatives and plant-specific enhancements. These procedures are developed in accordance the generic guidelines provided by Pressurized Water Reactor Owners Group as well as the Westinghouse Owners Group (WOG) Emergency Operating Procedure Guidelines, NUREG-0899, "Guideline for the Preparation of Emergency Operating Procedures," and NUREG-1358, "Lessons Learned from the Special Inspection Program for Emergency Operating Procedures." EOPs and AOPs now have a symptom-based approach which requires the operating crews to perform less assessments and interpretations of plant conditions.

3.1.4.2 Emergency Plan Implementation Procedures

The DCPP classification methodologies were based off of NEI 99-01, Revision 4 (Reference 4), except for security emergency action levels (EAL)s which were based on NEI 99-01, Revision 5. In 2017, DCPP received approval to implement NEI 99-01, Revision 6, EAL scheme (Reference 5). Both revisions utilize human factored wall boards and formatting to improve classification efficiency.

3.1.5 Training Improvements

3.1.5.1 Operations Training

Training is used to strategically drive and sustain improved performance at DCPP. Training is administered through the application of the Systematic Approach to Training to ensure that training is conducted to the industry-accepted standards required to achieve and maintain accreditation by the National Academy of Nuclear Training.

A Program of Instruction (POI) is developed for each biennial training cycle to ensure all necessary items are covered. The POI includes use of the dynamic plant reference simulator to provide Operations crews with hands-on experience and practice in normal, abnormal, and emergency plant conditions to include implementation of Emergency Plan actions. The POI also specifies simulator performance evaluations for licensed operator requalification training. Evaluation scenarios are designed to be realistic and provide an opportunity for performance evaluation during a wide range of plant operating conditions including emergency conditions that require implementation of the DCPP

Emergency Plan. Scenarios can vary in both length and complexity.

3.1.5.2 STA Training

The DCPP STA training was developed to train the STA as an advisor to the CR team in accordance with ACAD 14-002, "Guidelines for the Training and Qualification of Shift Technical Advisors." The INPO guidelines describe STA related activities and are reflected in Operations Department procedures. These activities include performance of independent assessments of plant parameters, monitoring critical safety function (CSF) status trees, providing recommendations on appropriate corrective actions to restore plant parameters to acceptable values, and assessing whether core damage has occurred or appears imminent. The POI for DCPP's initial STA training includes general as well as plant specific training on transient and accident analysis, mitigating core damage, accident assessment, CR design and layout (including instrumentation and controls in the plant CR), Technical Specifications, operating procedures, and plant systems. These elements enable the STA to perform the roles described in ACAD 14-002, "Guidelines for the Training and Qualification of Shift Technical Advisors."

3.1.6 On-Shift Staffing Changes

Since the original DCPP Emergency Plan approval, on-shift staffing has increased with respect to performance of the major Emergency Plan functions and tasks. In the current DCPP Emergency Plan, a total of 25 individuals are identified for on-shift staffing, which is an increase from the regulatory guidance provided by NUREG-0654, Revision 1, total of 10 individuals. This staffing is also more than the number of individuals which were required by the DCPP Emergency Plan, Revision 3.03, total of 18 individuals. A comparative chart depicting on-shift and augmented staffing based on NUREG-0654, Revision 1, DCPP Emergency Plan Revision 3.03, the current DCPP Emergency Plan, and proposed revisions is included in Attachment 3.

3.1.7 Improvement Summary

The improvements to staffing, equipment, procedures and training that have occurred since the initial approval of the DCPP Emergency Plan have resulted in significant increase in on-shift capabilities and knowledge. Based on these improvements, PG&E concluded that there would be no significant degradation or loss of any functional task as a result of the proposed change. The proposed on-shift staffing levels continue to allow the on-shift operations staff to focus on event mitigation, and also support the SM maintaining responsibility for event classification for an additional 30 minutes without conflicts.

3.2 Functional Analysis

This analysis evaluates the effect of extending the augmentation times on the ability of the on-shift staff to perform the major tasks for the major functional areas of the DCPP Emergency Plan. The analysis demonstrates that no degradation or loss of function would occur as a result of the proposed change.

The following is the result of the functional analysis performed for the major functional areas as described in NUREG-0654, Revision 1, Table B-1. In general, the analysis is organized to provide details for each functional area for (a) DCPP Emergency Plan Revision 3.03, (b) the current DCPP Emergency Plan, and (c) the proposed DCPP Emergency Plan.

3.2.1 Plant Operations and Assessment of Operational Aspects

NUREG-0654, Revision 1, assumes that the function of plant operations and assessment of operational aspects is performed by on-shift staff throughout the emergency.

- a. In Revision 3.03 of the DCPP Emergency Plan, the on-shift staffing of 18 exceeded the guidance of NUREG-0654, Revision 1, Table B-1.
- b. The current DCPP Emergency Plan has an additional non-licensed operator and reactor operator, as well as two (2) senior reactor operators (SROs) to support this function and to support any of the major tasks such as repair and corrective actions or operational accident assessments. These changes improved the availability of Operations personnel to perform specified functions.

Additional personnel have been included in the existing on-shift complement for a total on-shift staffing of 25 personnel. This represents an increase of 15 when compared to the regulatory guidance stated in NUREG-0654, Revision 1, Table B-1 and an increase of 7 when compared to the last NRC approved DCPP Emergency Plan in 1983. The additional staff on-shift helps ensure response to emergency events without requiring immediate augmentation.

c. In the proposed change, the Operations Advisor, a 60-minute response position, reports to the CR to provide on-shift support for plant operational oversight. The Shift Foreman qualification is a desired prerequisite for the Operations Advisor position. Access to the experience and qualification of the Operations Advisor as an

augmented resource provides the CR with added support for the purposes of tracking plant response and providing oversight to maintenance and radiation protection (RP) resources augmented at 60 minutes. This change provides for specific support of command and control activities associated with plant operation, allowing the SM to focus on the event classification. With the removal of ancillary duties related to plant operations, the SM is able to maintain responsibility for event classification and direction of emergency response activities for an additional 30 minutes without conflicts.

3.2.2 Emergency Direction and Control

NUREG-0654, Revision 1, guidance indicates that the on-shift Emergency Coordinator assumes this function as a collateral duty where responsibility for overall direction of facility response may be transferred when ERFs are activated.

- a. In Revision 3.03 of the DCPP Emergency Plan, the Shift Foreman would assume the duties of SEC and would be responsible for emergency response efforts until relieved by a senior plant management individual designated as the SEC. No time requirements were established with the relief process; however, activation of the TSC and EOF were required at the declaration of Alert or higher and onsite facilities were expected to be staffed within approximately 60 minutes after initial classification.
- b. Revision 3.19 of the DCPP Emergency Plan identified the staffing time for the SEC in the TSC and the Interim Recovery Manager in the EOF as approximately 60 minutes. The current revision of the DCPP Emergency Plan maintains Revision 3.19 response requirements for the TSC, OSC, and EOF.
- c. The proposed change provides for the Operations Advisor, a 60-minute response position, to report to the CR to provide on-shift support for plant operational oversight. This change provides for specific support of command and control activities associated with plant operation, allowing the SM to focus on the event classification function as the ED. With the removal of ancillary duties related to plant operations, the SM is able to maintain responsibility for event classification and direction of emergency response activities for an additional 30 minutes without conflicts.

3.2.3 Notification/Communication Function

Per NUREG-0654 Revision 1, the notification/communication function included major tasks to notify licensee, state, local, and federal personnel and maintain communications.

Licensee Notification

- a. Revision 3.03 of the DCPP Emergency Plan identified notification of licensee off duty personnel as a responsibility of the Shift Foreman. This notification was completed at an Alert or higher classification for personnel assigned to respond to the TSC, OSC, and EOF.
- b. In Revision 4.03, a dedicated on-shift position was added for performance of notification functions. In Revision 4.15, this position was renamed Shift Phone Talker. The current DCPP Emergency Plan maintains the Revision 4.15 performance of ERO notification by the Shift Phone Talker on-shift.
- There are no changes to the performance of ERO notification function as part of the proposed plan.

State, Local and Federal Notification

- a. In Revision 3.03 of the DCPP Emergency Plan, the Shift Foreman would assign a Control Operator to function as the Liaison Coordinator for performance of notification of offsite agencies and organizations. The offsite agency notification function transitioned to the Liaison Coordinator position in the TSC. The TSC Liaison Coordinator was a 60-minute response position.
- b. In Revision 4.03, the on-shift communicator became a dedicated position. In Revision 4.11, the augmented response position in the TSC was renamed Agency/ENS Communicator. In Revision 4.15, the on-shift position was renamed Shift Phone Talker. In Revision 4.16, on-shift responsibilities for federal notifications were assigned to a licensed operator as an ancillary duty while responsibility for State and local notifications remained with the Shift Phone Talker. The current DCPP Emergency Plan maintains the on-shift and augmented organization for the state, local, and federal notification functions as described in Revision 4.16.
- c. The proposed DCPP Emergency Plan maintains the on-shift organizational structure for performance of state and local notifications and reassigns a licensed operator previously credited for operational function to a communication function for

performance of the federal notification. The change provides for support of the Notification function and was validated during the OSA to ensure that there were no conflicting duties for on-shift personnel as a result of this change. The reassignment in support of this function does not result in a net change of Operations on-shift staffing. Assignment of a licensed operator for performance of the federal notification function provides sufficient on-shift support for performance of this function by on-shift resources for an additional 30 minutes.

Notification/Communication Function Summary

Notification of licensee personnel is accomplished through an automated call-out process, which is initiated by the Shift Phone Talker. The proposed change does not impact the call-out process or the notification of licensee personnel.

The proposed revision to the DCPP Emergency Plan maintains on-shift staffing for the performance of the state and local notification function, assigns a dedicated resource for performance of federal notifications, and extends augmented response time from 60 to 90 minutes. The reassignment of an on-shift resource allows the Offsite Notification function to remain with the CR staff for an additional 30 minutes, prior to transitioning to the TSC or EOF within 90 minutes under the proposed revision as outlined in Section 3.2.2 of this Enclosure.

3.2.4 Radiological Accident Assessment and Support of Operational Accident Assessment Function

Per NUREG-0654, Revision 1, the Radiological Accident Assessment and Support of Operational Accident Assessment functional area includes the EOF Director, Offsite Dose Assessment, Offsite surveys, In-Plant and Onsite (Out-of-plant) surveys and Chemistry/Radiochemistry major tasks.

EOF Director Major Task

Revision 3.03 of the DCPP Emergency Plan identified the TSC and EOF as being facility activated at the Alert or higher classification. Initial direction and coordination of onsite emergency operations functions were transitioned from the Shift Foreman in the CR to the SEC in the TSC. Details regarding direction and control of emergencies are discussed in Section 3.2.2 of this Enclosure, as well as in the analysis of the command and control task below.

Assessment, Evaluation and Recovery Task

- a. In Revision 3.03 of the DCPP Emergency Plan, the Shift Foreman, serving as the SEC, was in charge of all activities at the site. The Shift Foreman/SEC maintained responsibility for emergency assessment and evaluation functions until relieved by the TSC SEC at an Alert or higher classification. Although there was no specific response time identified for the TSC SEC, the TSC and EOF were expected to be staffed within approximately 60 minutes after event classification.
- b. In Revision 3.19, of the DCPP Plan, the TSC SEC and Interim Recovery Manager in the EOF were added as 60-minute response positions. The current revision of the DCPP Emergency Plan maintains the Revision 3.19 response requirements for the TSC and EOF.
- c. In the proposed revision, responsibility for plant assessment is assigned to a Unit Shift Foreman, augmented at 60 minutes by an Operations Advisor. Personnel filling the Operations Advisor position are current and/or former SRO license holders who fill plant management roles and are responsible for oversight of plant operational activities as a part of their normal duties. The proposed change separates ongoing plant operation and response from the SM emergency event duties.

Assessment, Evaluation and Recovery Task Summary

The proposed change to the DCPP Emergency Plan adds an augmented resource to the CR at 60 minutes in support of activities related to ongoing plant response. This change allows the SM to focus on DCPP Emergency Plan activities.

Command and Control Task

- a. In Revision 3.03 of the DCPP Emergency Plan, the Shift Foreman, acting as the SEC, was responsible for event response until relieved by the SEC in the TSC at an Alert or higher classification. Upon staffing the EOF, overall command and control of the event was transitioned from the SEC in the TSC to the Advisor to the County Emergency Organization who served as the EOF Director until relieved by the Recovery Manager in the EOF.
- b. In Revision 4.11, the EOF lead position was retitled ED. The current DCPP Emergency Plan maintains Revision 4.11 sequence of transfer of command and control functions from the CR to the

- TSC or subsequently, to the EOF at an Alert or higher classification.
- c. The proposed change maintains the on-shift CR organization, provides for additional CR Operational support at 60 minutes and extends TSC and EOF augmentation to 90 minutes. Additionally, the change separates responsibilities for plant oversight activities from classification functions, allowing the SM to focus on DCPP Emergency Plan requirements for an additional 30 minutes without conflicts.

Command and Control Task Summary

The proposed revision to the DCPP Emergency Plan extends the requirement for staffing the TSC, OSC, and EOF at the Alert or higher event classification level by 30 minutes and identifies specific positions associated with command and control responsibilities based on guidance in NSIR/DPR-ISG-01, "Interim Staff Guidance: Emergency Planning for Nuclear Power Plants," (Reference 8) so that transfer of these functions may occur earlier in the response process. As a result, the proposed changes will not adversely impact performance of command and control functions and will maintain the existing requirements for overall direction and coordination of PG&E event response by the EOF ED position.

Offsite Dose Assessment Major Task

- a. In Revision 3.03 of the DCPP Emergency Plan, the capability for performance of dose assessment on-shift was provided for through use of the EARS computer. The DCPP Emergency Plan did not specify a position on-shift responsible for tracking system outputs. The dose assessment function transitioned to personnel at the UDAC in the EOF.
- b. In Revision 4.14a, performance of the dose assessment function on-shift was identified as an ancillary duty of the Work Control Shift Forman. The current DCPP Emergency Plan maintains performance of the dose assessment function by the on-shift Work Control Shift Foreman as noted in Revision 4.14a, as well as the transition to augmented ERO positions.
- c. In the proposed change, performance of offsite dose assessment remains the responsibility of the Work Control Shift Foreman in conjunction with performance of STA activities. Performance of these functions is supported by improvements which have been made to the dose assessment program resulting in minimal user

interface. Radiological dose assessment has benefited from technological advances that make it simpler and less time consuming. Current dose assessment capability includes the ability to perform dose assessment in "Quick" mode which uses a set of reasonable assumptions with effluent monitor and meteorological data automatically populated from plant data systems (EARS, etc.). This enables a dose assessment projection to be completed in very few key strokes. Along with plume maps, a Dose Summary Report is also automatically printed which summarizes the dose results and provides a very simple display of which protective action zones (PAZs) have projected doses exceeding the protective action guidelines. These plume and PAZ maps require essentially no interpretation when evaluating PAR decisions in accordance with the DCPP PAR procedure. The dose assessment software is maintained on dedicated workstations in the CR, TSC, EOF, and Alternate TSC/OSC and is maintained by DCPP work practices and is included in the DCPP Equipment Important to Emergency Response (EITER) Program. Complete or partial losses of the workstations or server result in automatic generation of maintenance tickets with the appropriate repair priority. Additionally, in the event that the workstations and server are out of service, dose assessment capability is maintained through the use of laptop computers with battery backup. Based on the technical improvements in the dose assessment process, and as validated during the shift staffing analysis, performance of dose projections and STA activities by operations personnel for an additional 30 minutes does not result in conflicts in the performance of on-shift duties.

Offsite Surveys Major Task

- a. In Revision 3.03 of the DCPP Emergency Plan, offsite monitoring teams were initiated by augmented resources upon verification that a significant release had occurred or at a Site Area Emergency or higher classification. Offsite surveys were completed by two two-man teams responsible for performance of surveys, sample collection, and communication of findings to the Radiological Emergency Manager in the EOF.
- b. The current DCPP Emergency Plan maintains the commitment for initiation of offsite surveys by augmented resources upon verification that a significant release has occurred or at a Site Area Emergency or General Emergency classification.
- c. In the proposed change, the requirement for performance of initial offsite surveys is extended from 60 minutes at a Site Area

Emergency or higher declaration, to 90 minutes from the declaration of an Alert or higher classification level. The extension of the offsite survey teams to 90 minutes is supported by the use of the DCPP real-time radiation monitoring system which provides continuous measurement and reporting to DCPP, local, and state agencies of gamma radiation dose rates in the environment around DCPP.

The monitoring system employs 13 pressurized ion chamber (PIC) detectors 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 ERFs. PIC detectors are maintained by DCPP work practices and are included in the DCPP EITER Program. Complete or partial losses of detectors result in automatic generation of maintenance tickets with the appropriate repair priority. The PIC may be powered either by 12 volt (V) batteries or by 120 V alternating current (ac). When operated in the ac mode, the batteries are charged while supplying power to the instruments. The PIC uninterrupted power supply units are replaced periodically as directed by site procedures.

Each PIC has a unique location number which is coded to prepared maps of different scales indicating exact locations of all monitoring stations.

The real-time radiation monitors locations were selected to provide radiation monitoring in the population centers surrounding DCPP and in as many of the land-based compass sectors as possible. In addition, consideration for placement is based on prevailing wind direction, wind speed, and the topography in the area of DCPP. A map showing the location of PIC monitoring points is included in Attachment 5 of this Enclosure.

The use of the DCPP real-time radiation monitoring system, combined with inputs from the onsite (out-of-plant) FMT, provides DCPP, local, and State decision makers with pertinent offsite radiation dose rate indications prior to the arrival of the 90-minute offsite survey team responders.

Onsite (out of plant) Surveys Major Task

a. Revision 3.03 of the DCPP Emergency Plan identified 2 augmented C&RP Technicians, responsible for performance of onsite

radiological monitoring out to the 0.5 mile site boundary. Onsite monitoring teams were initiated upon verification that a significant release had occurred or at a Site Area Emergency or higher classification. Near site (onsite/out-of-plant) surveys were completed by two-man teams responsible for performance of surveys around the plant site, sample collection, and communication of their findings to the Radiological Emergency Advisor and/or the Emergency Evaluations and Recovery Coordinator.

- b. The current DCPP Emergency Plan maintains the Revision 3.03 organizational structure for 2 C&RP Technicians augmented at 60 minutes for the performance of onsite surveys at a Site Area Emergency or higher classification. Sample points beyond the 0.5 mile range may be used as warranted by the event.
- c. The proposed change, dispatch of the onsite (out-of-plant) FMT is maintained at 60 minutes, however, will occur at the Alert classification level rather than at the Site Area Emergency classification level. Additionally, the composition of the onsite (outof-plant) FMT will be revised to include 1 C&RP Technician as the Team Leader and a qualified individual as the Team Driver.

In-Plant Surveys Major Task

- a. Revision 3.03 of the DCPP Emergency Plan identified 2 C&RP Technicians on-shift who were responsible for assessment of radiation exposures to personnel and administration controls over radiation work; and for chemical and radiochemical analysis of reactor coolant to determine reactor core and primary process system conditions. These resources were augmented by an additional 2 C&RP Technicians upon declaration of an Alert or higher.
- b. Revision 4.11 of the DCPP Emergency Plan included an expected 60-minute response time for augmented personnel. The current DCPP Emergency Plan maintains the Revision 3.03 requirement for 2 on-shift C&RP Technicians as well as the Revision 4.11 requirement for augmented response by an additional 2 C&RP Technicians at 60 minutes from an Alert or higher classification.
- c. The proposed change maintains the on-shift and 60 minutes augmented staffing of C&RP Technicians and adds 2 additional C&RP Technicians augmented at 90 minutes for performance of the in-plant survey function after classification of an Alert or higher.

Chemistry/Radiochemistry Major Task

- a. Revision 3.03 of the DCPP Emergency Plan identified 2 C&RP Technicians on-shift who were responsible for assessment of radiation exposures to personnel and administration controls over radiation work; and for chemical and radiochemical analysis of reactor coolant to determine reactor core and primary process system conditions. These resources were augmented by a Site C&RP Technician Coordinator, in addition to the 2 augmented C&RP Technicians upon declaration of an Alert or higher.
- b. In 2001, DCPP received NRC approval to reduce the number of chemistry tasks by eliminating some chemical analyses and deferring others for 8 to 24 hours after an accident condition via Post Accident Sampling Licensing Amendment, dated July 13, 2001 (Reference 3). Revision 4.00 of the DCPP Emergency Plan removed the Site C&RP Technician Coordinator position from the augmented response as a result of the approved change. The current DCPP Emergency Plan maintains the Revision 3.03 requirement for 2 C&RP Technician on-shift positions. Augmentation of 2 additional C&RP Technicians within 60 minutes of an Alert or higher declaration is maintained in accordance with the Revision 4.00 requirement.
- c. The proposed change maintains the 2 C&RP Technicians on-shift, however, removes the reference to performance of chemistry/radiochemistry activities on-shift and by augmented positions in accordance with recent NRC guidance. Removal of chemistry tasks permits resources to focus on RP activities in response to an event.

Off-site Dose Assessment, Off-site Surveys, Onsite (out of plant) Surveys, In-Plant Surveys and Chemistry /Radiochemistry Major Task Summary

The dose assessment, in-plant survey, offsite survey and chemistry/radiochemistry major tasks are impacted by the proposed change.

Performance of the dose assessment function by the Work Control Shift Foreman is facilitated by improvements in both the dose assessment and core damage assessment processes.

In-Plant survey tasks would be performed by an on-shift C&RP Technician and augmented by 2 C&RP Technicians at 60 minutes and an additional 2 C&RP Technicians at 90 minutes.

Offsite surveys would be performed by FMTs at 90 minutes from declaration of Alert or higher, rather than 60 minutes after declaration of a Site Area Emergency or higher. Each FMT includes a C&RP Technician as Survey Leader and a qualified FMT Driver. Initiation of environmental sampling at a lower classification level will continue to support timely performance of the function even with the extended dispatch time.

3.2.5 Plant System Engineering, Repair and Corrective Actions Function

Per NUREG-0654, Revision 1, the Plant System Engineering, Repair and Corrective Actions functional area includes Technical Support and Repair and Corrective Actions Major Tasks. NUREG-0654, Revision 1, Table B-1 notes that Mechanical Maintenance/Radwaste Operator and Electrical Maintenance/I&C Technician expertise may be provided by on-shift personnel assigned to perform other functions.

Technical Support Major Task

- a. Revision 3.03 of the DCPP Emergency Plan included an on-shift Shift Engineer position who acted as the Emergency Evaluations and Recovery Coordinator during an event. The Shift Engineer was responsible for initial classification and development of PARs as well as evaluation of core conditions. The position was augmented at 60 minutes by the Emergency Evaluations and Recovery Coordinator in the TSC. Augmented staffing by Electrical and Mechanical Engineering was required at 60 minutes after the event.
- In Revision 3.06, the Shift Engineer position on-shift was renamed STA whose primary focus was plant conditions and who acted in a support role for the Shift Foreman in evaluation of the emergency condition. In Revision 3.19, the Emergency Evaluations and Recovery Coordinator position was renamed the Reactor Engineer. In Revision 4.06, STA activities transitioned from a dedicated individual to a function which could be performed by an individual on-shift with the appropriate engineering expertise. This change was approved by NRC SER, "Conversion to Improved Technical Specifications for Diablo Canyon," dated May 28, 1999 (Reference 2). The current DCPP Emergency Plan maintains the Revision 4.06 requirement for the Reactor Engineer position augmented at 60 minutes from an Alert or higher classification. The Reactor Engineer position is responsible for performing reactor assessments, trends, and development of recommendations. Subsequent staffing by Electrical and Mechanical Engineering

continues to take place at 60 minutes after the event.

c. The proposed change maintains responsibility for core damage assessment with the Work Control Shift Foreman and extends augmented response of the Reactor, Electrical, and Mechanical Engineers by 30 minutes. Technological improvement in the DCPP data display systems via the PPC provides a wide range of plant parameters and associated alarms with detailed trending capability to support rapid and continuous monitoring of plant conditions.

The DCPP core damage assessment process is based on current WOG guidance which uses a combination of core exit temperature, containment radiation readings, and containment hydrogen concentrations to determine core status. This data is readily available for viewing and trending in the CR via the PPC to assist in rapidly assessing core conditions. Likewise, the status of the CSFs is graphically represented via color coded tabs at the top of the PPC display. The individual CSF status trees are available for viewing as well to include relevant data inputs.

Based on the technical improvements in the dose assessment process, performance of dose projections and core damage assessment activities by operations personnel for an additional 30 minutes does not result in conflicts in the performance of on-shift duties.

Repair and Corrective Actions Major Task

- a. In Revision 3.03 of the DCPP Emergency Plan included 2 Control Technicians on-shift. Control Technicians provided support for the performance of offsite notifications and were available as required for operating equipment or other tasks as identified. Augmented staff to address repair and corrective actions included 1 Mechanical Maintenance Coordinator, 2 Electrical Maintenance Coordinators, and 1 Instrument Maintenance Coordinator augmented within approximately 60 minutes of an Alert or higher classification.
- b. In Revision 4.03, the Control Technician positions were renamed Mechanical/Electrical/I&C. The current DCPP Emergency Plan maintains the Revision 4.03 on-shift maintenance craft staffing as well as augmented maintenance response within approximately 60 minutes at an Alert or higher classification.

c. The proposed change removes the 2 Electrical/I&C Maintenance Technicians from on-shift, maintains augmented response at 60 minutes with 1 Electrical Maintenance and 1 Mechanical Maintenance position and extends the response by an I&C Technician to 90 minutes. The DCPP engineered safety features (ESFs) are described in the paragraphs below. These ESFs are credited for removal of maintenance personnel from on-shift and extension of I&C Technician response times.

Chapter 3 of the DCPP Final Safety Analysis Report (FSAR) states that DCPP units are designed to comply with the Atomic Energy Commission for Nuclear Power Plant Construction Permits, published in July 1967. Although the DCPP design basis is the 1967 General Design Criteria (GDC), subsequent commitments to the GDC issued later are also noted within Chapter 3 of the DCPP FSAR as applicable.

Relative to ESFs performance capabilities, Section 3.1.8.5 of the DCPP FSAR specifies that the DCPP ESFs are designed in accordance with 1967 GDC 41 which states:

"Engineered safety features such as emergency core cooling and containment heat removal systems shall provide sufficient performance capability to accommodate partial loss of installed capacity and still fulfill the required safety function. As a minimum, each engineered safety feature shall provide this required safety function assuming a failure of a single active component."

Each of the ESFs is designed to tolerate a single failure during the period of recovery following an accident without loss of its protective function. This period of recovery consists of two segments: the short-term period and the long-term period. During the short-term period, the single failure is limited to a failure of an active component to complete its function as required. Should the single failure occur during the long-term period rather than the short-term, the related engineered safety system is designed to tolerate an active failure or a passive failure without loss of its protective function.

Relative to ECCS capabilities, Section 3.1.8.8 of the DCPP FSAR specifies that the DCPP ECCS is designed in accordance with 1967 GDC 44 which states:

"At least two emergency core cooling systems, preferably of different design principles, each with a capability for accomplishing abundant emergency core cooling, shall be provided. Each emergency core cooling system and the core shall be designed to prevent fuel and clad damage that would interfere with the emergency core cooling function and to limit the clad metal-water reaction to negligible amounts for all sizes of breaks in the reactor coolant pressure boundary, including the double-ended rupture of the largest pipe. The performance of each emergency core cooling system shall be evaluated conservatively in each area of uncertainty. The systems shall not share active components and shall not share other features or components unless it can be demonstrated that (a) the capability of the shared feature or component to perform its required function can be readily ascertained during reactor operation, (b) failure of the shared feature or component does not initiate a loss of coolant accident, and (c) capability of the shared feature or component to perform its required function is not impaired by the effects of a loss of coolant accident and is not lost during the entire period this function is required following the accident."

The DCPP ECCS design conforms to 1967 GDC 44 and consists of passive accumulators with two centrifugal charging pumps, two safety injection pumps, and two residual heat removal pumps, ensuring that emergency core cooling is provided even if there should be a failure of any single component in any system. The ECCS employs a passive system of accumulators that do not require any external signals or source of power for their operation to cope with the short-term cooling requirements of large reactor coolant pipe breaks. Two independent and redundant high-pressure flow and pumping systems, each capable of the required emergency cooling, are provided for small break protection and to keep the core submerged after the accumulators have discharged following a large break. These systems are arranged so that the single failure of any active component does not interfere with meeting the short-term cooling requirements.

Relative to emergency power for ESFs to include the ECCS, Section 3.1.8.3.1 of the DCPP FSAR specifies that the DCPP electric power systems are designed in accordance with 1971 GDC 17 which states:

"An onsite electric power system and an offsite electric power system shall be provided to permit functioning of structures, systems, and components important to safety. The safety function for each system (assuming the other system is not functioning) shall be to provide sufficient capacity and capability to assure that (1) specified acceptable fuel design limits and design conditions of the reactor coolant pressure boundary are not exceeded as a result of anticipated operational occurrences and (2) the core is cooled and containment integrity and other vital functions are maintained in the event of postulated accidents.

The onsite electric power supplies, including the batteries, and the onsite electric distribution system, shall have sufficient independence, redundancy, and testability to perform their safety functions assuming a single failure.

Electric power from the transmission network to the onsite electric distribution system shall be supplied by two physically independent circuits (not necessarily on separate rights of way) designed and located so as to minimize to the extent practical the likelihood of their simultaneous failure under operating and postulated accident and environmental conditions. A switchyard common to both circuits is acceptable. Each of these circuits shall be designed to be available in sufficient time following a loss of all onsite alternating current power supplies and the other offsite electric power circuit, to assure that specified acceptable fuel design limits and design conditions of the reactor coolant pressure boundary are not exceeded. One of these circuits shall be designed to be available within a few seconds following a loss-ofcoolant accident to assure that core cooling, containment integrity, and other vital safety functions are maintained.

Provisions shall be included to minimize the probability of losing electric power from any of the remaining supplies as a result of, or coincident with, the loss of power generated by the nuclear power unit, the loss of power from the transmission network,

or the loss of power from the onsite electric power supplies."

The DCPP offsite power system is designed to supply offsite electrical power by two physically independent circuits. The 230 kV system provides startup and standby power, and is immediately available following a design basis accident to assure that core cooling, containment integrity, and other vital safety functions are maintained. The 500 kV system provides for transmission of the plant's electric power output. The 500 kV connection also provides a delayed access source of offsite power after the main generator is disconnected. A combination of the 230 kV and the 500 kV circuits provides independent sources of offsite power as required by 1971 GDC 17.

The onsite emergency power source consists of three diesel generators for each unit. Any two of the three diesel generators and their buses are adequate to serve at least the minimum required ESF loads of a unit after a major accident. The ESF loads and their onsite standby sources emergency diesel generators (EDGs) are grouped so the functions required during a major accident or transient coincident with a complete loss of the preferred power source are provided regardless of a single failure of an EDG.

Likewise, direct current (dc) loads for control of ESFs are provided by three redundant 125 Vdc buses. The 125 Vdc arrangement corresponds to the ac loads on the three redundant 4.16 kV and 480 V ESF buses. This arrangement ensures that a single active failure on a 125 Vdc bus only impacts its associated 4.16 kV and 480 V ESF bus.

The DCPP electrical power systems are designed such that the offsite and onsite systems have sufficient independence, capacity, and testability to permit the operation of the ESFs assuming a failure of a single active component in each power system.

Normal ESF operating status and deviations from this status to include the ECCS and associated power sources is controlled by the DCPP Technical Specifications.

System performance is tracked and trended by the site and demonstrates a high degree of reliability. System health requirements are maintained based on NRC performance indicators for system availability and functional failures which are

an integral part of the Reactor Oversight Process. Additionally, reliability is driven by Maintenance Rule performance criteria.

Crediting the robust ESFs capability and protection against single point failures provides the basis for removal of maintenance personnel from on-shift and maintaining augmentation response times for these positions at 60 minutes. Enhancements in EOPs and AOPs and operations training improvements implemented at DCPP further reduce the need for on-shift maintenance staff for immediate repair and corrective actions. As a result, the proposed changes will not result in a reduction in response capability.

Plant System Engineering, Repair, and Corrective Actions Function Summary

The Plant System Engineering, Repair, and Corrective Actions functions are not adversely impacted by the proposed change. Core thermal hydraulics major tasks will continue to be performed by on-shift personnel and transition to the TSC within approximately 90 minutes.

Changing the Operations Advisors' reporting location to the CR, at 60 minutes, supports extension of augmented maintenance and engineering response times to 60 and 90 minutes. The Operations Advisor is able to provide oversight and direction to personnel in the field such that the proposed changes do not adversely impact completion of this major task.

3.2.6 Protective Actions (In-Plant) Function

Per NUREG-0654 Revision 1, the Protective Actions functional area includes the RP major task, specifically Access Control, Health Physics (HP) Coverage for repair and corrective actions, search and rescue, first aid and firefighting, personnel monitoring, and dosimetry. NUREG-0654 Table B-1 notes that HP Technician expertise may be provided by onshift personnel assigned other functions.

- Revision 3.03 of the DCPP Emergency Plan provided for performance of in-plant protective actions as an ancillary duty of the 2 C&RP Technicians on-shift. These positions were augmented at 60 minutes by 4 additional C&RP Technicians.
- b. The current DCPP Emergency Plan maintains the on-shift and augmented C&RP Technician response as stated in Revision 3.03 of the DCPP Emergency Plan.

c. The proposed revision maintains the second on-shift C&RP Technician responsibility for this function, and reduces the number of C&RP Technicians augmented at 60 minutes from 4 to 1 and provides for an additional C&RP Technician augmented at 90 minutes. The proposed revision also removes the reference to performance of Chemistry/Radiochemistry activities on-shift and by augmented positions in accordance with recent NRC guidance. Justification for these changes are addressed in the paragraphs below.

Access Control/Dosimetry

The performance of access control and dosimetry activities is primarily completed through the use of personal electronic dosimeters (PEDs) which are obtained prior to entry into radiologically controlled areas (RCA). The PED is also used as a "key" to unlock turnstiles to gain access to the RCA. Radiation work permits (RWPs) establish the necessary preset warnings/alarms associated with the PED. The access control software system is provided at the RCA access point and verifies entry requirements for the RWP which include dose limit, dose rate limit, RWP requirements, and dose margin. Additionally, site procedures provide for rapid entry into the RCA by Operations personnel through use of "grab and go" PEDs.

Use of the PED and RWP process has reduced the need for access control/dosimetry oversight by an C&RP Technician for initial response actions to an event. Due to the use of improvements in access control technology, extension of the 2 C&RP Technicians for performance of protective actions from a 60-minute response time to 90 minutes does not adversely impact performance of the access control/dosimetry major tasks.

HP Coverage for Repair and Corrective Actions, Search and Rescue First Aid and Firefighting

C&RP Technician coverage for response action activities will continue to be performed by the second on-shift C&RP Technician; therefore, functions associated with this major task will not be adversely impacted by the proposed change.

Personnel Monitoring

The performance of personnel monitoring for on-shift event responders is provided by an on-shift C&RP Technician. Improvements in plant computer systems, as discussed in Section 3.1.2 and Section 3.2.4, allow information on plant radiological conditions to be made readily

available to C&RP Technicians. Additionally, DCPP uses remote monitoring tools as a means of adding administrative barriers to protect against unplanned exposure. Remote monitoring via telemetry is available for ARMs, continuous air monitors and individual PED readouts. Remote monitoring data is provided via computer display and available to C&RP Technicians (location) allowing the protective action C&RP Technician to monitor plant conditions and immediate identification of changes in plant status so that updates to plant personnel can be completed in a timely manner. This use of technology enables the on-shift staff to assess plant conditions quickly and efficiently, and with fewer distractions.

Habitability

Performance of habitability activities are associated with the ERFs after they are staffed by augmented personnel. As augmentation of emergency response staffing and C&RP Technicians occurs simultaneously for each facility under the proposed change, performance of this function is not adversely impacted.

Protective Actions (In-Plant) Function Summary

The proposed change maintains the second on-shift C&RP technician for the Protective Action/HP Coverage task, reduces the number of C&RP Technicians augmented for this function from 4 to 2 with 1 C&RP Technician augmented at 60 minutes and the second C&RP Technician augmented at 90 minutes. PG&E has implemented improvements in technology in the areas of electronic dosimetry and access control which reduce the need for C&RP Technician actions in each of these areas during the early stages of event response.

Additionally, an extension of the response time for 1 C&RP Technician responsible for monitoring/habitability coincides with the 90-minute activation time for ERFs as described in the proposed DCPP Emergency Plan.

The use of improved technology for plant monitoring, dosimetry, and access control ensures that performance of these functions is not adversely impacted by the proposed change.

3.2.7 Firefighting Function

Per NUREG-0654, Revision 1, the firefighting functional area is addressed by use of a fire brigade and managed in accordance with site Technical Specifications.

- a. In Revision 3.03, of the DCPP Emergency Plan, firefighting response by site personnel was not specifically discussed. The DCPP Emergency Plan described offsite support as provided by California Department of Forestry. In Revision 3.19 of the DCPP Emergency Plan, a reference to the firefighting function was added and referenced the fire brigade as described in the site FSAR. In Revision 4.14 of the DCPP Emergency Plan, 5 fire brigade members were specifically identified as on-shift resources for this function.
- b. The current DCPP Emergency Plan maintains the Revision 4.1.4 requirement for 5 on-shift fire brigade members as well as augmentation by local fire support resources.
- c. The proposed change maintains this commitment by including the 5 on-shift fire brigade members currently identified in Table 5-1A of the DCPP Emergency Plan. Fire protection staffing was evaluated in accordance with the requirements of 10 CFR 50 Appendix E.IV.A.9 and is not impacted by the proposed change.

3.2.8 Rescue Operations and First-Aid Function

NUREG-0654, Revision 1, Table B-1 notes that this function may be provided by on-shift personnel assigned to perform other functions.

- a. DCPP Emergency Plan Revision 3.03, provided for first aid treatment for injured personnel by qualified on-shift personnel. In Revision 4.1.4, first aid response became an ancillary duty of the members of the fire brigade.
- b. The current DCPP Emergency Plan maintains this commitment through the use of on-shift First Aid Responders.
- c. The proposed change does not alter this requirement; therefore, the Rescue Operations and First Aid functional area is not impacted by the proposed change.

3.2.9 Site Access Control and Personnel Accountability Function

The site access control and personnel accountability functional area is addressed by Security personnel in accordance with the Site Security Plan.

a. In DCPP Emergency Plan Revision 3.03, site access control and accountability was identified as a function of the Security Officer onshift. In Revision 3.14, the onsite Security Officer position was

renamed the DCPP Watch Commander.

- b. The current DCPP Emergency Plan maintains the Revision 3.1.4 requirement.
- c. The proposed change continues to identify Security Plan personnel as being responsible for performance of this major task. As a result, the site access control and personnel accountability functional area is not impacted by the proposed change.

3.3 Conclusions

The proposed changes continue to support the functional areas of the DCPP Emergency Plan, continue to ensure the protection of the health and safety of the public and site personnel, and will not present a significant burden to the on-shift personnel.

Elimination of on-shift maintenance positions, given the diverse and redundant capabilities of plant systems, does not adversely affect the site's ability to respond to an event.

Additionally, realignment and extension of the C&RP Technician staffing augmentation response times from a total of 10 C&RP individuals at 60 minutes to a total of 4 additional C&RP Technicians at 60 minutes and a total of 5 C&RP Technicians at 90 minutes, does not adversely affect the performance of radiological assessment or protective action functions associated with event response. PG&E has incorporated new technologies in access control, dosimetry, telemetry, and in-plant monitoring capability to ensure that the emergency response functions identified in the DCPP Emergency Plan will continue to be performed. The proposed changes do not result in a reduced ERO capability to effectively respond to an emergency.

The proposed change extends the times at which the offsite sampling teams are dispatched by 30 minutes; however, sampling teams will be dispatched at an Alert or higher classification rather than at a Site Area Emergency or General Emergency. Initiation of environmental sampling at a lower classification will continue to support effective performance of the function even with the extended dispatch time. The proposed changes continue to support the functional areas of the DCPP Emergency Plan, continue to ensure the protection of the health and safety of the public and site personnel, and will not present a significant burden to the on-shift personnel.

Therefore, the proposed changes continue to ensure the DCPP Emergency Plan will meet the requirements of 10 CFR 50.54(q)(2), the requirements of 10 CFR 50 Appendix E, and the planning standards of 10 CFR 50.47(b).

4. REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

Title 10 Code of Federal Regulations 50.47(b)(1) and (2):

- (b) The onsite and, except as provided in paragraph (d) of this section, offsite emergency response plans for nuclear power reactors must meet the following standards:
 - (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.
 - (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 onsite response activities and Off-site support and response activities are specified.

The existing DCPP Emergency Plan includes onsite and offsite emergency response plans that meet the requirements listed above. This LAR proposes to remove maintenance personnel from on-shift and extend some of the current staff augmentation response times from 60 minutes to 90 minutes. The DCPP Emergency Plan will continue to have onsite and offsite emergency response plans that meet 10 CFR 50.47(b). The proposed change was also reviewed with offsite response organizations. The review determined that the proposed changes continue to support offsite staffing and performance of emergency response activities.

Relevant portions of <u>Title 10 Code of Federal Regulations 50.54(q)</u> are as follows:

- (q) Emergency Plans
 - (1)(iv) Reduction in effectiveness means a change in an emergency plan that results in reducing the licensee's capability to perform an emergency planning function in the event of a radiological emergency.

- (2) A holder of a license under this part, or a combined license under part 52 of this chapter after the Commission makes the finding under § 52.103(g) of this chapter, shall follow and maintain the effectiveness of an emergency plan that meets the requirements in appendix E to this part and, for nuclear power reactor licensees, the planning standards of § 50.47(b).
- (4) The changes to a licensee's emergency plan that reduce the effectiveness of the plan as defined in paragraph (q)(1)(iv) of this section may not be implemented without prior approval by the NRC. A licensee desiring to make such a change after February 21, 2012 shall submit an application for an amendment to its license. In addition to the filing requirements of §§ 50.90 and 50.91, the request must include all emergency plan pages affected by that change and must be accompanied by a forwarding letter identifying the change, the reason for the change, and the basis for concluding that the licensee's emergency plan, as revised, will continue to meet the requirements in appendix E to this part and, for nuclear power reactor licensees, the planning standards of § 50.47(b).

The existing DCPP Emergency Plan meets the planning standards of 10 CFR 50.47(b) and 10 CFR 50 Appendix E as required by 10 CFR 50.54(q)(2). This LAR proposes to remove maintenance personnel from shift and increase some of the staff augmentation response times from 60 minutes to 90 minutes. These proposed changes are considered a reduction in effectiveness as defined in 10 CFR 50.54(q)(1)(iv) and require submittal based on 10 CFR 50.54(q)(4). Therefore, PG&E is submitting this LAR pursuant to 10 CFR 50.90.

The DCPP Emergency Plan will continue to meet the requirements of 10 CFR 50.54(q)(2) by maintaining the effectiveness of the Emergency Plan such that it meets the requirements of 10 CFR 50 Appendix E, and the planning standards of 10 CFR 50.47(b).

Relevant portions of <u>Title 10 Code of Federal Regulations Part 50 Appendix E.IV</u> are as follows:

A. Organization

The organization for coping with radiological emergencies shall be described, including definition of authorities, responsibilities, and duties of individuals assigned to the licensee's emergency organization and the means for notification of such individuals in the event of an emergency. Specifically, the following shall be included:

A.9. By December 24, 2012, for nuclear power reactor licensees, 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.

The existing DCPP Emergency Plan includes a description of the organization, including definition of authorities, responsibilities, and duties of individuals. The current DCPP Emergency Plan, Revision 4.18 is in compliance with 10 CFR 50 Appendix E.IV.A.9. This LAR proposes to remove maintenance personnel from shift and increase some of the staff augmentation response times from 60 minutes to 90 minutes. A staffing analysis has been performed to demonstrate continued compliance with 10 CFR 50 Appendix E.IV.A.9. The staffing analysis supports acceptability of this increase in staff augmentation times. The proposed changes to the DCPP Emergency Plan will continue to describe the authorities, responsibilities, and duties of these individuals. Therefore, with the changes proposed in the LAR, the requirements of 10 CFR 50 Appendix E continue to be met.

NUREG-0654/FEMA-REP-1, Revision 1 (Reference 6)

NUREG-0654/FEMA-REP-1, Revision 1, Section II.B.5 states, in part:

"Each licensee shall specify the positions or title and major tasks to be performed by the persons to be assigned to the functional areas of emergency activity. For emergency situations, specific assignments shall be made for all shifts and for plant staff members, both onsite and away from the site. These assignments shall cover the emergency functions in Table B-1 entitled, 'Minimum Staffing Requirements for Nuclear Power Plant Emergencies.' The minimum on-shift staffing levels shall be as indicated in Table B-1. The licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency. This capability shall be as indicated in Table B-1."

NUREG-0654, Revision 1 states general guidance concerning the onsite emergency organization to allow licensees some flexibility in the number of on-shift staff required by emergency plans for response to emergency events. NUREG-0654 guidance recommends that there be, in addition to on-shift personnel, 30-minute and 60-minute responders. The augmented ERO responders assume many managerial, engineering, and administrative duties from the on-shift personnel, allowing them to focus more fully on plant operations. The current DCPP Emergency Plan staffing in Table 5-1A and 5-1B meets the intent of NUREG-0654, Table B-1. This LAR proposes to remove

maintenance personnel from shift and extend some of the staff augmentation response times from 60-minute response to 90 minutes.

The proposed changes have been evaluated in a staffing analysis performed to meet 10 CFR 50 Appendix E.IV.A.9 requirements. Furthermore, the proposed DCPP Emergency Plan changes and evaluation documented in this submittal continue to meet the standards of 10 CFR 50.47 (b) and the requirements of 10 CFR 50 Appendix E.

The proposed changes to the DCPP Emergency Plan continue to meet the intent of NUREG-0654, Revision 1, Table B-1 (i.e., continue to cover the emergency functional areas in Table B-1). This change is in alignment with NUREG-0654, Revision 1, Section II.B.5.

4.2 Precedent

The proposed DCPP Emergency Plan changes are similar to changes approved for other licensees, including Susquehanna (ML030830543), Fermi (ML112450464), River Bend (ML012710218), Watts Bar (ML041810056), Point Beach (ML16118A154), Duane Arnold (ML17220A026), Monticello (ML17349A916), Prairie Island (ML17362A202), South Texas Project (ML18159A212), and Sequoyah (ML18159A461).

4.3 No Significant Hazards Considerations Determination

In accordance with the requirements of 10 CFR 50.90, PG&E requests an amendment to Facility Operating Licenses DPR-80 and DPR-82 of the DCPP to revise the Emergency Plan. Completion of an OSA of the ERO supported the removal of maintenance personnel from shift and extension of some of the staff augmentation response times from 60-minute response to 90 minutes as described. PG&E proposes to revise the ERO staff augmentation response times in the DCPP Emergency Plan.

PG&E has evaluated the proposed amendment against the criteria in 10 CFR 50.92 and has determined that the operation of the DCPP in accordance with the proposed amendment presents no significant hazards. The PG&E evaluation against each of the criteria in 10 CFR 50.92 follows.

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

Response: No.

The proposed increase in staff augmentation times has no effect on normal plant operation or on any accident initiator or precursors and does not impact the function of plant structures, systems, or components. The proposed change does not alter or prevent the ability of the ERO to perform their intended functions to mitigate the consequences of an accident or event. The ability of the ERO to respond adequately to radiological emergencies has been demonstrated as acceptable in a staffing analysis as required by 10 CFR 50 Appendix E.IV.A.9.

Therefore, the proposed DCPP Emergency Plan changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No.

The proposed change does not impact the accident analysis. The change does not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed), a change in the method of plant operation, or new operator actions. The proposed change does not introduce failure modes that could result in a new accident, and the change does not alter assumptions made in the safety analysis. This proposed change increases the staff augmentation response times in the DCPP Emergency Plan, which are demonstrated as acceptable through a staffing analysis as required by 10 CFR 50 Appendix E.IV.A.9. The proposed change does not alter or prevent the ability of the ERO to perform their intended functions to mitigate the consequences of an accident or event.

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

3. Does the proposed change 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 change is associated with the DCPP Emergency Plan staffing and does not impact operation of the plant or its response to transients or accidents. The change does not affect the Technical Specifications. The proposed change does not involve a change in the method of plant operation, and no accident analyses will be affected by the proposed change. Safety analysis acceptance criteria are not affected by this proposed change.

A staffing analysis and a functional analysis were performed for the proposed change on the timeliness of performing major tasks for the functional areas of the DCPP Emergency Plan. The analyses concluded that an extension in staff augmentation times would not significantly affect the ability to perform the required Emergency Plan tasks. Therefore, the proposed change is determined to not adversely affect the ability to meet 10 CFR 50.54(q)(2), the requirements of 10 CFR 50 Appendix E, and the emergency planning standards as described in 10 CFR 50.47 (b).

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

4.4 Conclusion

PG&E has evaluated the proposed change against the applicable regulatory requirements and acceptance criteria. The proposed DCPP Emergency Plan changes continue to assure that regulatory requirements and emergency planning standards associated with emergency response are met. Additionally, PG&E has reviewed the proposed change against functions related to offsite agency event response and determined that the proposed change continues to support offsite agency staffing and performance of offsite response functions.

Based on the above evaluation, PG&E has determined that operation of the facility in accordance with the proposed change does not involve a significant hazards consideration as defined in 10 CFR 50.92(c), in that it does 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.

5. ENVIRONMENTAL CONSIDERATION

PG&E has determined that the proposed change would not revise a requirement with respect to installation or use of a facility or component located within the restricted area, as defined in 10 CFR 20, nor would it change an inspection or surveillance requirement. The proposed amendment does not (i) involve a significant hazards consideration, or (ii) authorize a significant change in the types or a significant increase in the amounts of any effluent that may be released offsite, or (iii) result in a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for a categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, PG&E concludes that pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with the proposed amendment.

6. REFERENCES

- 1. NRC Safety Evaluation Report, Supplement 20 (SSER 20), dated December 1983.
- 2. NRC Letter to Pacific Gas and Electric Company. "Conversion to Improved Technical Specifications for Diablo Canyon Power Plant," dated May 1999.
- 3. NRC Letter to Pacific Gas and Electric Company, "Diablo Canyon Nuclear Power Plant, Unit s 1 and 2 Issuance of Amendment Re: Elimination of Post Accident Sampling Requirements," dated July 2001.
- 4. NRC Letter to Pacific Gas and Electric Company, "Diablo Canyon Power Plant, Units 1 and 2 Conversion of Emergency Action Levels Based on Nuclear Energy Institute's Letter 99-01, 'Methodology for Development of Emergency Action Levels,'" dated December 2007.
- 5. NRC Letter to Pacific Gas and Electric Company, "Diablo Canyon Power Plant, Units 1 and 2 Issuance of Amendments Re: Emergency Action Level Scheme Change," dated September 2017.

- 6. NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1, U.S. Nuclear Regulatory Commission and Federal Emergency Management Agency, November 1980.
- 7. NRC Inspection Manual, Inspection Procedure 71114.01, "Exercise Evaluation," May 29, 2012.
- 8. NSIR/DPR-ISG-01, "Interim Staff Guidance, Emergency Planning for Nuclear Power Plants." Revision 0, November 2011.
- 9. NRC letter from L. R. Norderhaug to J. O. Schuyler, dated December 1, 1983.

Enclosure Attachment 1 PG&E Letter DCL-18-064

Proposed Emergency Plan Sections (Mark-up)

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 DCPP EPZ are divided into 12 Protective Action Zones (PAZs) defined by local geographic boundaries (refer to section 2 of the DCPP Emergency Plan for a map of the EPZ).

Emergency Worker Dose

The dose received by a DCPP 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 Table 5-1 is 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.

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:

- Augment on-shift resources by activating the Technical Support Center (TSC),
 Operational Support Center (OSC), the Emergency Operations Facility (EOF) and
 staffing the Joint Information Center (JIC) Assure emergency personnel are readily
 available to respond if the situation becomes more serious, or to perform confirmatory
 radiation monitoring if required.
- 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) Augment on-shift resources by activating the Technical Support Center (TSC), Operational Support Center (OSC), the Emergency Operations Facility (EOF) and Joint Information Center (JIC).
- 3)2) Provide a dedicated individual (Advisor to County) for plant status updates to off-site authorities.
- 4)3) PG&E News Department will provide periodic media briefings (joint with off-site authorities).
- 5)4) Dispatch on-site and off-site monitoring teams. and associated communications as required.
- 6)5) Provide periodic plant status updates to off-site authorities (approximately every 45 minutes or immediately if situation warrants).
- 7)6) Provide periodic meteorological assessments to off-site authorities and, if any releases are occurring, dose estimates for actual releases.
- 8)7) Close out or recommend reduction in emergency classification level by verbal summary to off-site authorities, followed by written summary within 8 hours.

- Augment resources by activating the TSC, OSC, EOF, and staffing JIC if not already completedactivated earlier. 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.—and associated communications.
- 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 DCPP and others. Jointly assess monitoring results with DCPP.
- 7) Continuously assess information from DCPP 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.

4.1.4.3 General Actions of Plant Staff

- Promptly inform local, State, and off-site company support agencies of the nature of the GENERAL EMERGENCY condition and status.
- Augment resources by activating the TSC, OSC, EOF, and staffing JIC if not already completedactivated earlier. 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, and associated communications 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 Emergency Planning Zone and activate others to standby status.

5.1.1 Emergency Planning

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

The emergency planning manager is assigned the responsibility for preparation and maintenance of the DCPP 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 DCPP 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 DCPP 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 DCPP FSAR Chapter 13 for further organization details.

5.1.3 Minimum On-Shift ERO Staffing Requirements

At DCPP, a minimum staff of 225 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. 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.

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.A, 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 DCPP. An important part of this responsibility focuses on the coordination and development of both Company and DCPP 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

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. The Shift Technical Advisor functional qualification may also reside with the Shift Manager as a dual role.

- 1) Prior to being relieved, the Shift Manager 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 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 Nuclear Regulatory Commission
 - b) Maintain liaison with offsite emergency support groups.

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.

During an emergency, the Shift Manager assigns each Shift Foreman to an emergency position. One Shift Foreman is responsible for emergency communications.

The other Shift Foreman provides plant management representation in the Control Room and:

- 1) Manages operational activities.
- 2) Supervises the Control Room management in the operational control of the plant.
- 3) Advise the Site Emergency Coordinator on operational matters.
- 4) This position may be assigned other operational duties such as radwaste management as required by the situation.

The third Shift Foreman position is normally staffed by the Work Control Shift Foreman (WCSFM). The Work Control Shift Foreman will have either a Shift Technical Advisor or Incident Assessor 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 Work Control 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 WCSFM 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 Operators

These are positions in the normal plant organization that continue to perform plant operational manipulations in the emergency organization when not otherwise assigned.

5.3.5 Shift Technical Advisor

The Shift Technical Advisor (STA) 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 qualified licensed Senior Reactor Operator (SRO) acting in a dual functional role (preferably the Work Control Shift Foreman (WCSFM) with functional qualifications, but may be an on-shift individual with functional qualifications).

5.3.6 Shift Phone Talker

The Shift Phone Talkers are is a 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 an on-shift individual with the necessary functional qualifications. The Shift Manager may assign these tasks to another on-shift individual with appropriate functional qualifications.

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.

5.3.8 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.

- 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:

Performing reactor engineering assessments, trends and recommendations.

5.6.11 Operations Advisor

The Operations Advisor is responsible for the following activities:

- Reporting initially to the Control Room to provide additional event response support for the Operations Staff, including the provision of oversight of in-plant troubleshooting activities performed by augmented maintenance responders.
- 4)2) Providing general operational advice and assistance to the SEC and TSC Staff.

5.6.12 Communications Advisor

The Communications Advisor is responsible for the following activities:

- 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) From the Control Room maintaining continuous communications with the TSC, transmitting and receiving technical data and procedural activities between the facilities

5.6.14 Agency / ENS Communicator

The Agency 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 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.

5.6.16 Administrative Advisor

The Administrative Advisor is responsible for the following activities:

- 1) Providing administrative support.
- 2) Directing administrative staff to requested emergency response facilities.
- 3) Establishing 24 hour shift schedules for all emergency response facilities.
- 4) Executing administrative/logistical functions as directed.

5.6.17 TSC Administrative Support

The TSC Administrative support is responsible for the following activities:

1) Providing administrative support to the TSC staff.

5.6.18 SEC Admin Assistant

The SEC Admin Assistant is responsible for the following activities:

- 1) Providing administrative support to the SEC.
- 2) Maintaining SEC log.
- 3) Assisting SEC with communications.

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 Figure 5-3, OSC Organization, illustrates the OSC organization chart. Specific OSC position functions are:

5.7.2 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 Advisor.
- 3) Coordinating the fabrication and sets up of any special equipment necessary at the direction of the SEC and Maintenance Advisor.
- 4) Coordinating the movement and accountability of maintenance teams.
- 5) Providing OSC status updates to the TSC.

- 4) Determining when an emergency exposure authorization is required and providing justification to the SEC or ED.
- 5) Keeping the Radiological Advisor, OSC Director and Team Coordinator informed of actions and findings.
- 6) Coordinating briefing and dispatch of personnel into affected plant areas with the OSC Team Coordinator.

5.7.6 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.

5.7.7 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.

5.7.8 Onsite Field Monitoring Teams (FMTs)

The onsite Field Monitoring Team is 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 Work Control Shift Foreman and subsequently with the FMT Coordinator for reporting of monitoring results and maintaining cognizance of the emergency situation.

5.7.9 OSC Administrative Support

The OSC Administrative Support is responsible for the following activities:

1) Providing support as needed to maintain OSC records and status boards.

5.7.105.7.9 Maintenance, RP, Chemistry and Operations Personnel

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

1) Mechanical Maintenance personnel

- 3) Maintaining awareness of plant conditions and emergency response activities.
- 4) Assisting in the interface between DCPP and County EOC personnel.

5.8.15 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.

5.8.16 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 EOF Administrative Support

The EOF Administrative support is responsible for the following activities:

1) Providing communications, copying, distribution and other administrative support to the EOF staff.

5.8.18 ED Admin Assistant

The ED Admin Assistant is responsible for the following activities:

- 1) Providing administrative support to the ED.
- 2) Maintaining the ED log.
- Assisting the ED with communications.

5.8.195.8.17 UDAC Meteorologist

The UDAC Meteorologist is responsible for the following activities:

1) Determining current and forecast meteorological information.

- 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 Administrative Support

The JIC Administrative support is responsible for the following activities:

1) Providing administrative and distribution support as needed for the JIC Staff.

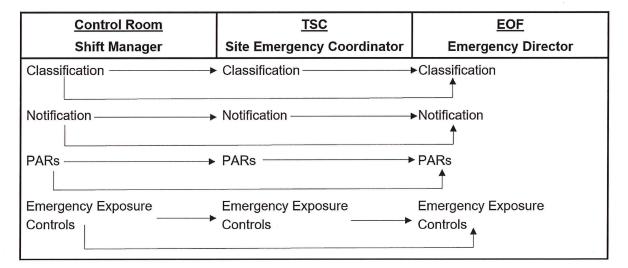
5.9.115.9.10 JIC Security

The JIC Security is responsible for the following activities:

1) Providing access control for JIC areas.

5.10 Transfer of Command and Control 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.



5.185.19 TABLE 5-1A5-1, DCPP ON-SHIFT AND AUGMENTED ERO MINIMUM STAFFING

Functional Area	Major Tasks	Emergency Positions	Shift Staffing ^(d)	
4. Diant On an Viene and		Shift Manager	1	
Plant Operations and Assessment of Operational	Control Room Staff	Unit Shift Foreman	2	
Aspects ^(c)	Control (Controllar)	Licensed Operator	5	
Vaheora		Nuclear Operator	5	
Emergency Direction and Control	Command and Control	Shift Manager	1 ^(a)	
	Licensee	Shift Foreman/RO	1(a)	
3. Notification & Communication	Local/ State	Shift Phone Talker (SRO/RO/NO)	1	
	Federal	Shift Foreman/RO	1(a)	
4. Radiological Assessment	Dose Assessment	Work Control Shift Foreman	1 ^(a)	
	In-plant Surveys	C&RP Technician	1	
	Chemistry	C&RP Technician	1	
5 PL (0 (5)	Technical Support	Work Control Shift Foreman	1	
5. Plant System Engineering,	D	Mechanical Maint (operations)	1(a)	
Repair, and Corrective Actions	Repair and Corrective Actions	Elect/I&C Maint (Maint, SCT)	2	
6. In-Plant PAs	Radiation Protection	C&RP Technician	2 ^(a)	
7. Firefighting		Fire Department	5	
8. 1st Aid and Rescue Ops		Industrial Fire Officers	2 ^(a)	
Site Access Control and Accountability	Security & Accountability	Watch Commander Security Personnel	1 (b)	
Accountability	Gecurity & Accountability	Security Personnel TOT	· · · · · · · · · · · · · · · · · · ·	

(a) May be filled by someone filling another position having functional qualifications.

(b) Per DCPP Security Plan.

(d) Respirator and self-contained breathing apparatus (SCBA) training requirements described in emergency planning program of instruction.

⁽c) Per Technical Specification 5.2.2.f, one of the on-shift SROs (Shift Manager, Unit Shift Foreman or Work Control Shift Foreman) is required to meet the qualification requirements specified by the Commission Policy Statement on Engineering Expertise on-shift.

5.18 TABLE 5-1B, DCPP AUGMENTED ERO MINIMUM STAFFING

	Functional Area	Major Tasks	Emergency Positions	y. 11 %	*60 Minute	Full Augmentation
2.	Emergency Direction and	Command and Control	Site Emergency Coordinator	(TSC)	1	,
	Control		Emergency Director	(EOF)	1	
		Facility Control	TSC Director	(TSC)		1
			EOF Director	(EOF)	1	
3.	Notification &	Emergency	Communications Coordinator	(EOF)	1	
	Communication	Communications	Agency/ENS Communicator	(TSC)	1	
			HPN Communicator	(EOF)		1
		Plant Status &	Communications Advisor	(TSC)		1
		Technical Activities	OPS Communicator	(CR)		1
			Engineering Liaisons	(EOF)		2
		In-Plant Team Control	Team Coordinator	(OSC)		1
		Governmental	Offsite Communicator	(EOF)	1	
				y EOC)		1
			Government Relations Coordinator	(EOF)		1
		2	General Office Technical Liaison	(EOF)		1
4.	Radiological Assessment	Offsite Dose	Radiological Manager	(EOF)	1	
		Assessment	Dose Assessment Coordinator	(EOF)		1
			Dose Assessor	(EOF)	1	
			UDAC Meteorologist			1
		Offsite Surveys	FMT Coordinator	(FOF)		1
			FMT Communicator	(EOT)		1
		744	Field Monitoring Team	(EOF)	4	
			Offsite Emergency Lab Analyst	(EOF)		1
		Onsite Surveys	Field Monitoring Team	(OSC)	2	
		In-plant Surveys	C&RP Technician	(OSC)	2	(d)
		Chemistry	C&RP Technician	,		(d)
			Chemistry Coordinator	(OSC)		
		RP Supervisory	Radiological Advisor	(TSC)		1
			Site RP Coordinator	(OSC)	1	

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Functional Area	Major Tasks	Emergency Positions		*60 Minute	Full Augmentation
Plant System Engineering,	Technical Support /	Engineering Advisor	(TSC)	-	1
Repair, and Corrective	Accident Analysis	Reactor Engineer	(TSC)	1	
Actions		Mechanical Engineer	(TSC)	1	
		Electrical Engineer	(TSC)	1	
		Operations Advisor	(TSC)	1	
		Radiological Data Processor	(TSC)		1
		PPC Operator	(TSC)		1
	Repair and Corrective	Mechanical Maintenance	(OSC)		(d)
	Actions	Electrical/I&C Maintenance	(SCT)		(d)
		Maintenance Advisor	(TSC)	1	
		OSC Director	(OSC)	1	
		Mechanical Coordinator	(OSC)	1	
		Electrical Coordinator	(OSC)	1	
		I&C Coordinater	(OSC)	1	
		Operations Coordinator	(OSC)		1
6. In-Plant Protective Actions	Radiation Protection	C&RP Technician		4	(d)
8. 1st Aid and Rescue Ops		Firefighters			(d)
Site Access Control and	Security &	Security Personnel		(e)	(e)
Personnel Accountability	Accountability	Security Advisor	(TSC)		1
		Security Liaison	(EOF)	(f)	1
10. Resource Allocation and	Logistics	Administrative Advisor	(TSC)		1
Administration		Security	(EOF)		1
	Administration	ED Admin Assistant	(EOF)		1
		SEC Admin Assistant	(TSC)		
-		Administrative Staff (TSC/	(EOF/OSC)		3
		UDAC Administrative Staff	(EOF)		1

Functional Area	Major Tasks	Emergency Positions		*60 Minute	Full Augmentation	
11. Public Information	Media Interface	Company Spokesperson	(JIC)		1	
		News Media Liaison - Corp	(JIC)		1	
		News Media Liaison - Site	(JIC)		1	
	Information	Public Info Officer	(JIC)	1		
	Development	Technical Advisor - OPS	(JIC)		1	
		Technical Advisor - HP	(JIC)		1	
		News Writer	(JIC)		1	
		Assistant PIO	(JIC)		1	
	Facility Operation and	JIC Director	(JIC)	1		
	Control	JIC Security	(JIC)		1	
		JIC Administrative Staff	(JIC)	1	1	
TOTAL:				32	40	

Notes:

^{*} Response time is based on optimum travel conditions.

⁽d) Personnel numbers depend on the type and extent of the emergency.

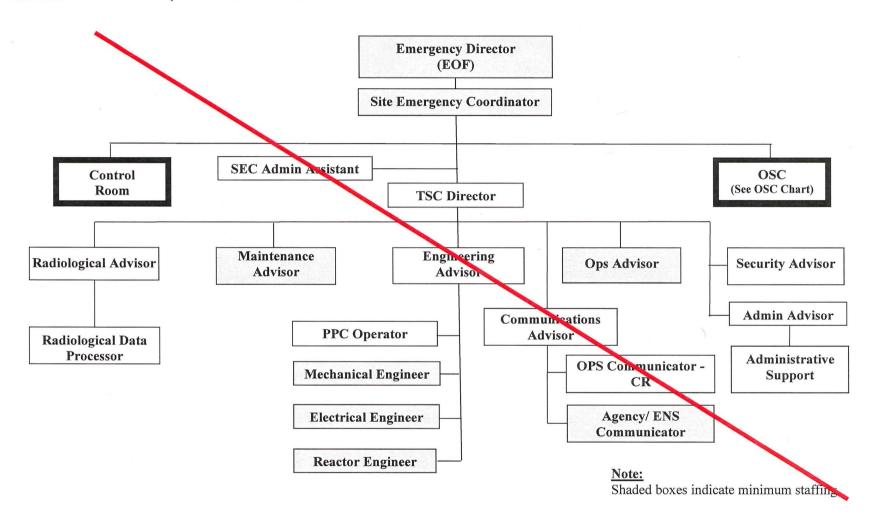
⁽e) Per DCPP Security Plan.

⁽f) Position only required for security related events.

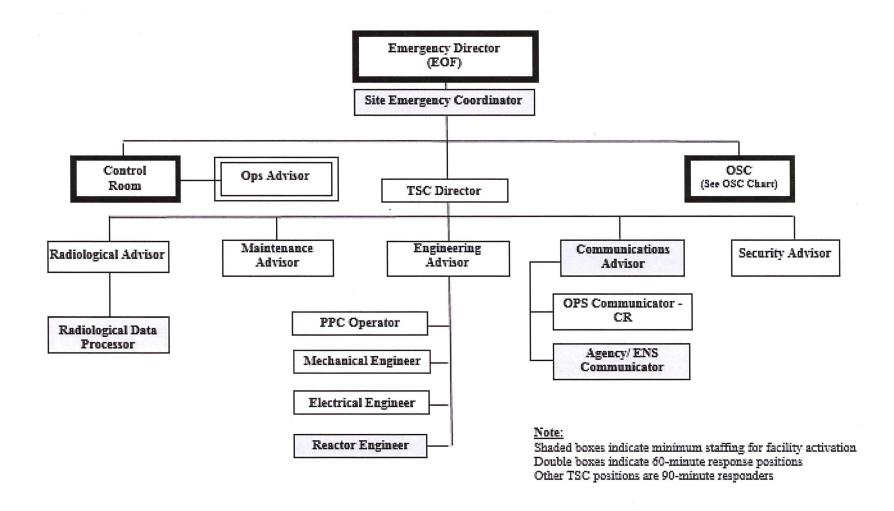
Functional Area	Major Tasks	Emergency Positions		Shift Staffing	60 Minutes	90 Minutes
Plant Operations and Assessment of Operational Aspects	Control Room Staff	Unit Shift Supervisor (SRO) Operations Advisor Control Room Operator (RO) Non-Licensed Operator (NO)		2 4 5	1	
Emergency Direction and Control	Classification	Shift Manager Site Emergency Coordinator Emergency Director	(TSC) (EOF)	1	_	1 1
Notification & Communication	Licensee, Local/Sate Federal	Shift Phone Talker (SRO/RO/NO Shift Phone Talker (SRO/RO))	1 1		
		Agency/ENS Communicator Communications Advisor Communications Coordinator Offsite Communicator	(TSC) (TSC) (EOF) (EOF)			1 1 1
Radiological Assessment	Dose Assessment	WC Shift Foreman (SRO) Rad Data Processor Radiological Manager Dose Assessor	(TSC) (EOF) (EOF)	1* 		1 1 1
	Offsite Surveys	FMT Leader (RP Technicians) FMT Driver				2 2
	On-Site(out-of-plant) Surveys	Team Leader (RP Technician) Team Driver		_	1 1	
	In-plant Surveys	RP Technician		2	2	2
Plant System Engineering, Repair, and Corrective Actions	Technical Support	WC Shift Foreman (SRO) / STA Reactor Engineer Electrical Engineer Mechanical Engineer	(TSC) (TSC) (TSC)	1		1 1 1
	Repair and Corrective Actions	Mechanical Maintenance Electrical Maintenance I&C Maintenance OSC Director	(OSC) (OSC) (OSC) (OSC)		1 1 —	 1 1
6. In-Plant PAs	Radiation Protection	RP Technician		2*	1	1
7. Firefighting	-	Fire Department		5	Local Support	Local Support
8. 1st Aid and Rescue Ops		Industrial Fire Officers		2*	Local Support	Local Support
Site Access Control and Accountability	Security & Accountability	Security Personnel		Per Security Plan	Local Support	Local Support
TOTAL:				22	8	21

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

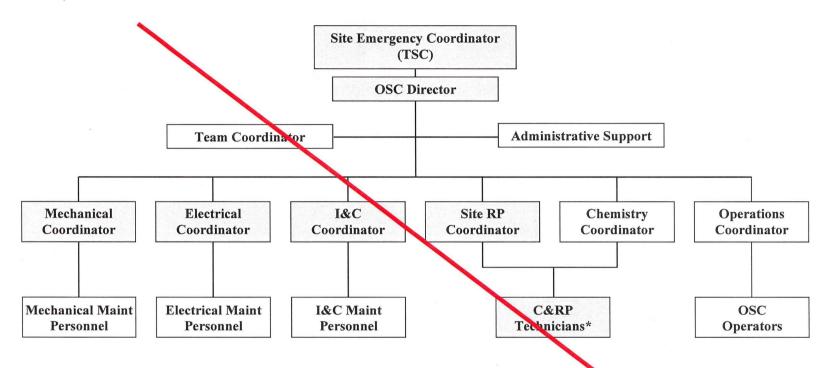
5.205.21 FIGURE 5-2, TSC ORGANIZATION



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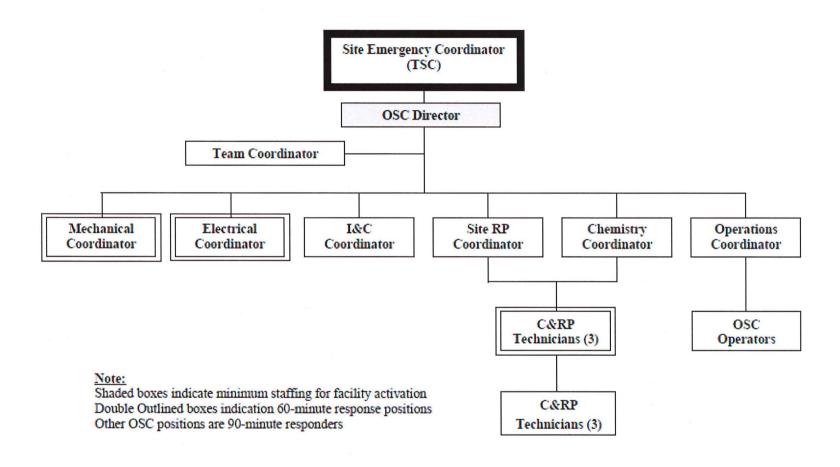
5.215.22 FIGURE 5-3, OSC ORGANIZATION



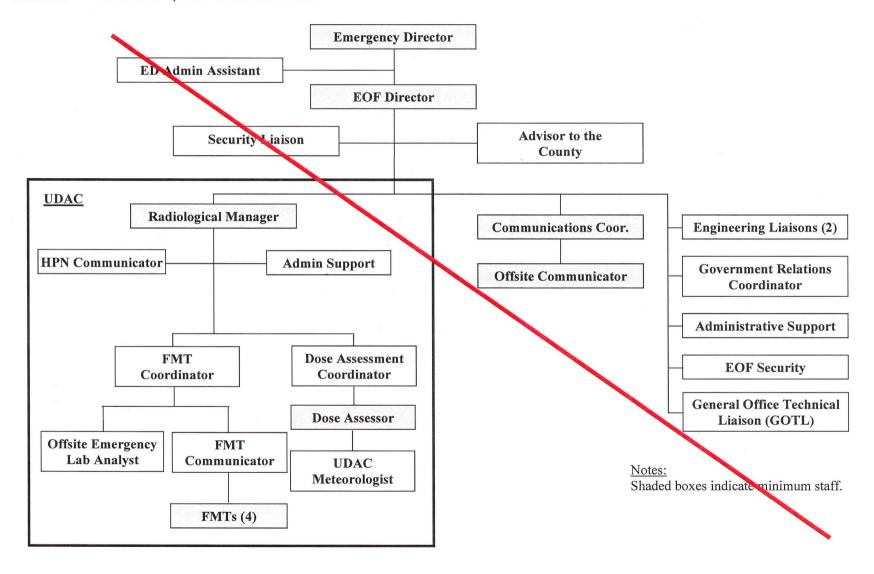
Note:

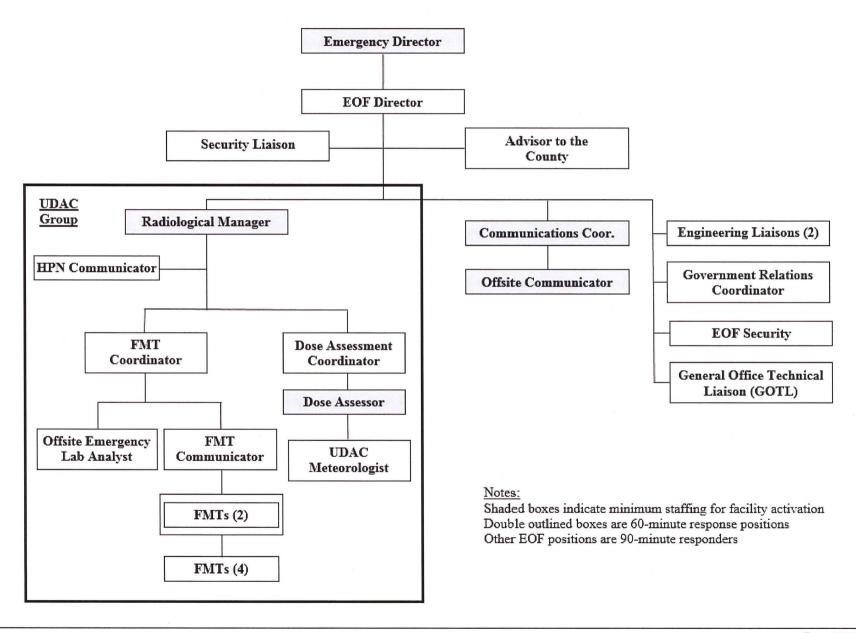
Shaded boxes indicate minimum staffing.

- * 8 C&RP Technicians:
 - 4 In-plant protective actions
 - 2 In-plant surveys
 - 2 FMT members

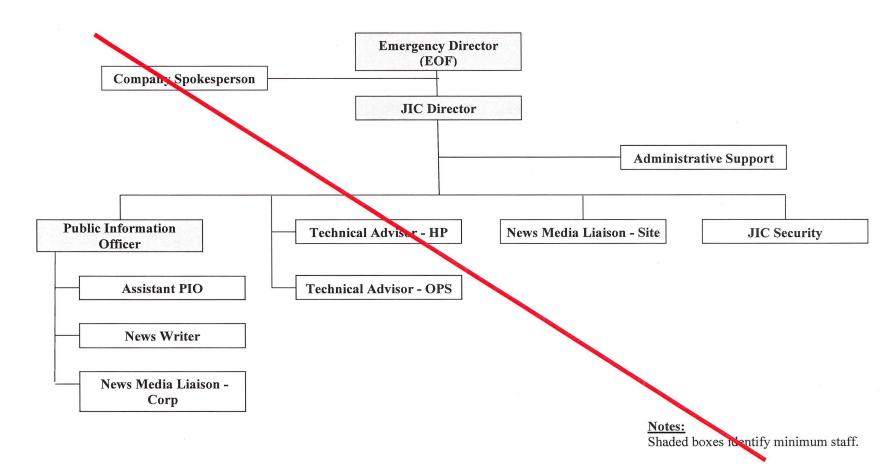


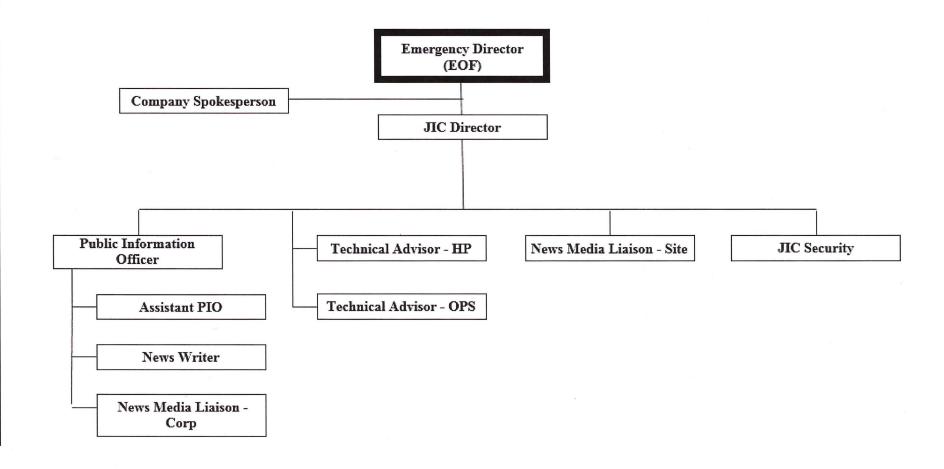
5.225.23 FIGURE 5-4, EOF ORGANIZATION





5.235.24 FIGURE 5-5, JIC ORGANIZATION





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 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 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 and activated by the augmented ERO.

The on-shift ERO will be augmented by the minimum staff ERO responders within approximately 690 minutes of event declaration (Alert or higher). Minimum staff ERO is defined as DCPP management, administrative, and technical 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.—The Atomic Safety and Licensing Board ruled in 1982, that DCPP is not required to augment the on-site staff within 30 minutes. The requirement for 30-minute responders was obviated by increased on-shift staffing as well as increasing the number of 60-minute responders.

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 Manager is not readily available, sounding of the site emergency signal requires Shift 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 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.

6.2.4 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 STAFFINGACTIVATION OF THE CORPORATE EMERGENCY ORGANIZATION

The Corporate Emergency Organization is discussed in Section 5.

The Corporate Emergency Organization can be staffed activated 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 activated 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 DCPP 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.

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.

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.

6.5.4 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. After the Unified Dose Assessment Center (UDAC) is staffedactivated, 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 DCPP.

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.

6.7.3.4 Evacuation Procedure

Following the alerting and accounting of on-site personnel, if evacuation is required, the following general steps would occur:

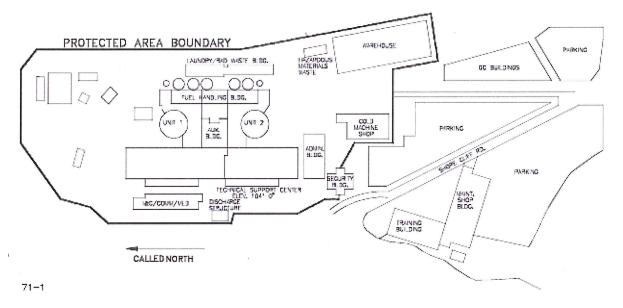
- 1) The Shift Manager or Site Emergency Coordinator will authorize the evacuation and determine which route and off-site assembly areas shall be used. This information will be transmitted to the Evacuation Coordinator, appointed by the Shift Manager or Site Emergency Coordinator.
- 2) The Communications 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 useactivated.

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 Manager's office is located adjacent to the Control Room. The Control Room has lavatory and kitchen facilities.

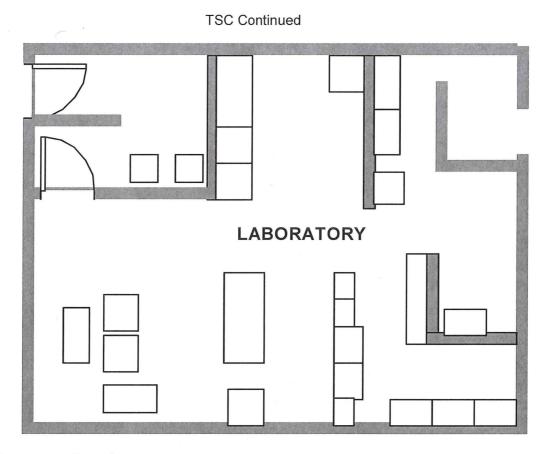


7.1.1.2 Emergency Function

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, of the TSC, 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.



7.1.4.2 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. 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 maywill be directed from this location. In addition, communications with off-site emergency response locations maywill be handled through the TSC.

Enclosure Attachment 2 PG&E Letter DCL-18-064

Proposed Emergency Plan Sections (Retyped)

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 DCPP EPZ are divided into 12 Protective Action Zones (PAZs) defined by local geographic boundaries (refer to section 2 of the DCPP Emergency Plan for a map of the EPZ).

Emergency Worker Dose

The dose received by a DCPP 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 Table 5-1 is 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.

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:

- Augment on-shift resources by activating the Technical Support Center (TSC), Operational Support Center (OSC), 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.

- 2) Augment resources by activating the TSC, OSC, EOF, and staffing 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 DCPP and others. Jointly assess monitoring results with DCPP.
- 7) Continuously assess information from DCPP 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.

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 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 Emergency Planning Zone and activate others to standby status.
- 7) Provide off-site monitoring results to DCPP and others. Jointly assess monitoring results.

5.1.1 Emergency Planning

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

The emergency planning manager is assigned the responsibility for preparation and maintenance of the DCPP 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 DCPP 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 DCPP 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 DCPP FSAR Chapter 13 for further organization details.

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. 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 DCPP. An important part of this responsibility focuses on the coordination and development of both Company and DCPP 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

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:
 - 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 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 Nuclear Regulatory Commission
 - b) Maintain liaison with offsite emergency support groups.

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.

During an emergency, the Shift Manager assigns each Shift Foreman to an emergency position. One Shift Foreman is responsible for emergency communications.

The other Shift Foreman provides plant management representation in the Control Room and:

- 1) Manages operational activities.
- 2) Supervises the Control Room management in the operational control of the plant.
- 3) Advise the Site Emergency Coordinator on operational matters.
- 4) This position may be assigned other operational duties such as radwaste management as required by the situation.

The third Shift Foreman position is normally staffed by the Work Control Shift Foreman (WCSFM). The Work Control Shift Foreman will have either a Shift Technical Advisor or Incident Assessor 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 Work Control 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 WCSFM 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 Operators

These are positions in the normal plant organization that continue to perform plant operational manipulations in the emergency organization when not otherwise assigned.

5.3.5 Shift Technical Advisor

The Shift Technical Advisor (STA) 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 qualified licensed Senior Reactor Operator (SRO) acting in a dual functional role (preferably the Work Control Shift Foreman (WCSFM) with functional qualifications, but may be an on-shift individual with functional qualifications).

5.3.6 Shift Phone Talker

The 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 an on-shift individual with the necessary functional qualifications. The Shift Manager may assign these tasks to another on-shift individual with appropriate functional qualifications.

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.

5.3.8 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.

- 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.

5.6.11 Operations Advisor

The Operations Advisor is responsible for the following activities:

- 1) Reporting initially to the Control Room to provide additional event response support for the Operations Staff, including the provision of oversight of in-plant troubleshooting activities performed by augmented maintenance responders.
- 2) Providing general operational advice and assistance to the SEC and TSC Staff.

5.6.12 Communications Advisor

The Communications Advisor is responsible for the following activities:

- 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) From the Control Room maintaining continuous communications with the TSC, transmitting and receiving technical data and procedural activities between the facilities

5.6.14 Agency / ENS Communicator

The Agency 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 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 Figure 5-3, OSC Organization, illustrates the OSC organization chart. Specific OSC position functions are:

5.7.2 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 Advisor.
- 3) Coordinating the fabrication and sets up of any special equipment necessary at the direction of the SEC and Maintenance Advisor.
- 4) Coordinating the movement and accountability of maintenance teams.
- 5) Providing OSC status updates to the TSC.

- 4) Determining when an emergency exposure authorization is required and providing justification to the SEC or ED.
- 5) Keeping the Radiological Advisor, OSC Director and Team Coordinator informed of actions and findings.
- 6) Coordinating briefing and dispatch of personnel into affected plant areas with the OSC Team Coordinator.

5.7.6 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.

5.7.7 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.

5.7.8 Onsite Field Monitoring Teams (FMTs)

The onsite Field Monitoring Team is 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 Work Control Shift Foreman and subsequently with the FMT Coordinator for reporting of monitoring results and maintaining cognizance of the emergency situation.

5.7.9 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

- 3) Maintaining awareness of plant conditions and emergency response activities.
- 4) Assisting in the interface between DCPP and County EOC personnel.

5.8.15 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.

5.8.16 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.

- 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:

 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.

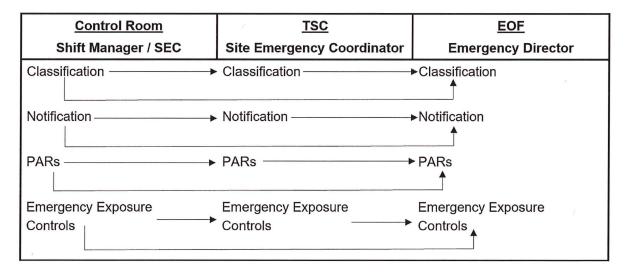
5.9.10 JIC Security

The JIC Security is responsible for the following activities:

1) Providing access control for JIC areas.

5.10 Transfer of Command and Control 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.

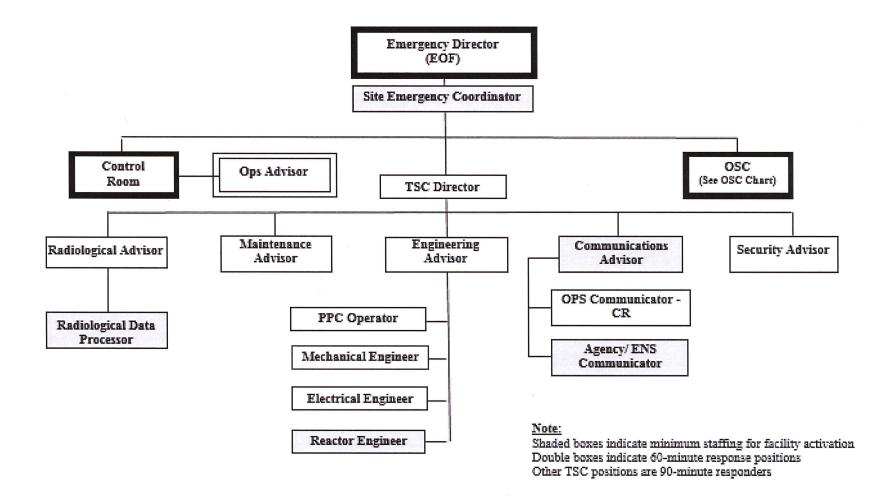


5.19 TABLE 5-1, DCPP ON-SHIFT AND AUGMENTED ERO MINIMUM STAFFING

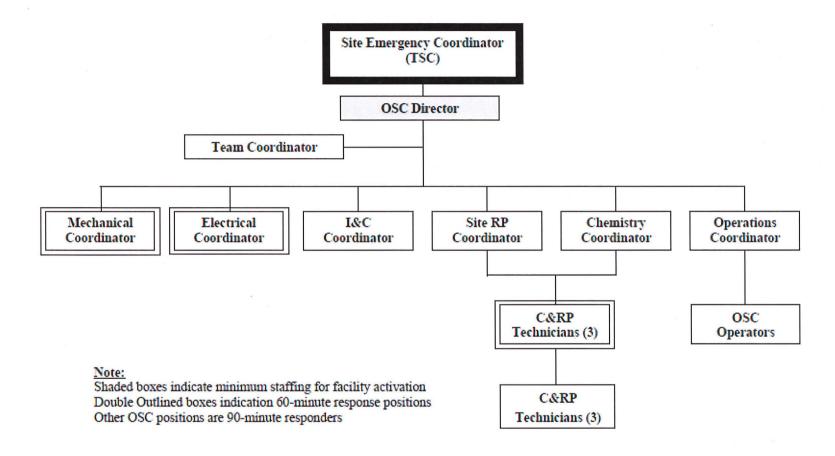
Functional Area	Major Tasks	Emergency Positions		Shift Staffing	60 Minutes	90 Minutes
Plant Operations and Assessment of Operational Aspects	Control Room Staff	Unit Shift Supervisor (SRO) Operations Advisor Control Room Operator (RO) Non-Licensed Operator (NO)		2 4 5	1	
Emergency Direction and Control	Classification	Shift Manager Site Emergency Coordinator Emergency Director	(TSC) (EOF)	1		1 1
Notification & Communication	Licensee, Local/Sate Federal	Shift Phone Talker (SRO/RO/NO Shift Phone Talker (SRO/RO))	1 1		
		Agency/ENS Communicator Communications Advisor Communications Coordinator Offsite Communicator	(TSC) (TSC) (EOF) (EOF)			1 1 1 1
Radiological Assessment	Dose Assessment	WC Shift Foreman (SRO) Rad Data Processor Radiological Manager Dose Assessor	(TSC) (EOF) (EOF)	OF)		1 1 1
	Offsite Surveys	FMT Leader (RP Technicians) FMT Driver				2 2
	On-Site(out-of-plant) Surveys	Team Leader (RP Technician) Team Driver			1 1	
	In-plant Surveys	RP Technician		2	2	2
 Plant System Engineering, Repair, and Corrective Actions 	Technical Support	WC Shift Foreman (SRO) / STA Reactor Engineer Electrical Engineer Mechanical Engineer	(TSC) (TSC) (TSC)	1		1. 1 1
	Repair and Corrective Actions	Mechanical Maintenance Electrical Maintenance I&C Maintenance OSC Director	(OSC) (OSC) (OSC) (OSC)		1 1 	
6. In-Plant PAs	Radiation Protection	RP Technician		2*	1	1
7. Firefighting	<u>-</u>	Fire Department		5	Local Support	Local Support
8. 1st Aid and Rescue Ops	_	Industrial Fire Officers		2*	Local Support	Local Support
9. Site Access Control and Accountability	Security & Accountability	Security Personnel		Per Security Plan	Local Support	Local Support
TOTAL:				22	8	21

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

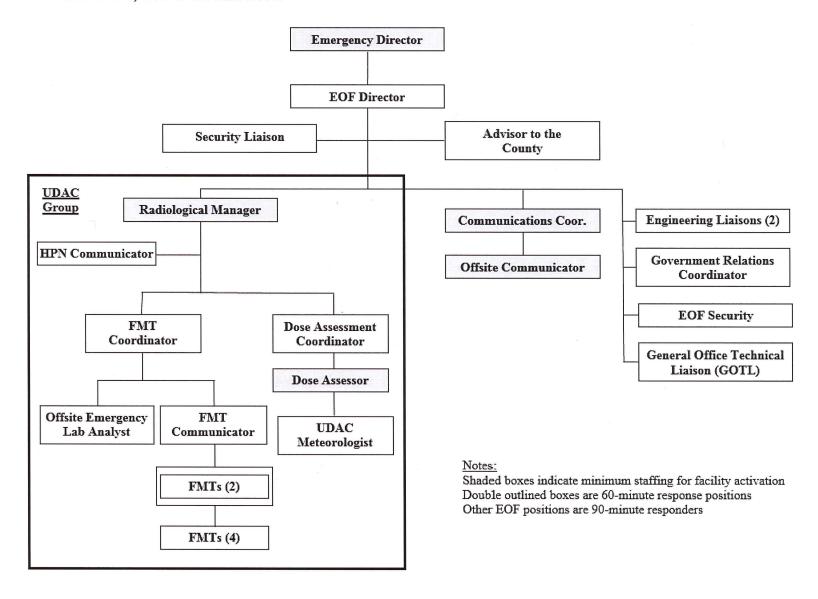
5.21 FIGURE 5-2, TSC ORGANIZATION



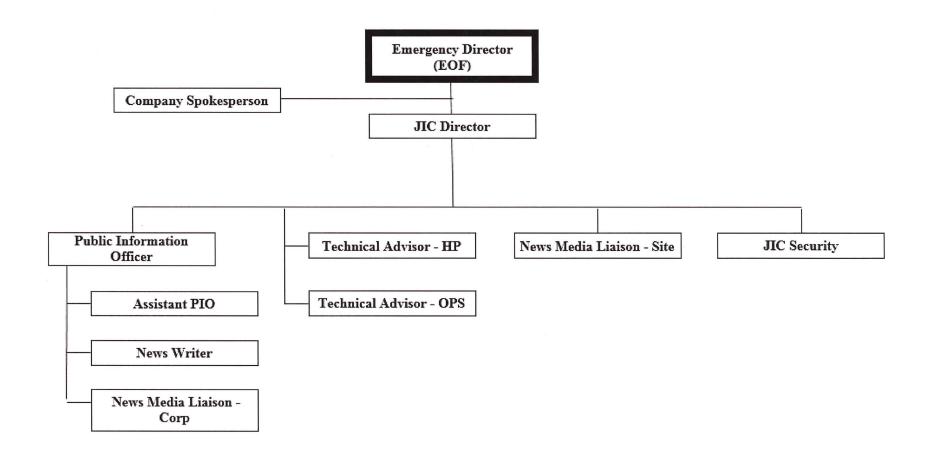
5.22 FIGURE 5-3, OSC ORGANIZATION



5.23 FIGURE 5-4, EOF ORGANIZATION



5.24 FIGURE 5-5, JIC ORGANIZATION



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 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 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 Manager is not readily available, sounding of the site emergency signal requires Shift 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 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.

6.2.4 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 DCPP 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.

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.

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.

6.5.4 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. 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 DCPP.

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.

6.7.3.4 Evacuation Procedure

Following the alerting and accounting of on-site personnel, if evacuation is required, the following general steps would occur:

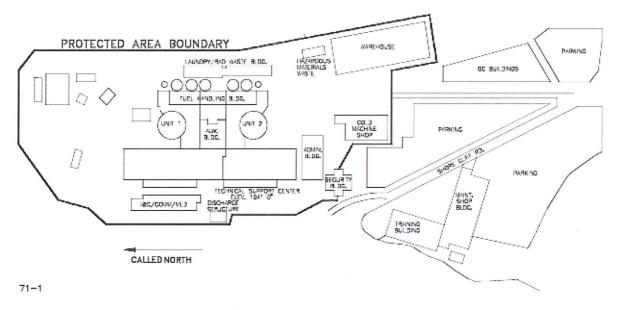
- The Shift Manager or Site Emergency Coordinator will authorize the evacuation and determine which route and off-site assembly areas shall be used. This information will be transmitted to the Evacuation Coordinator, appointed by the Shift Manager or Site Emergency Coordinator.
- 2) The Communications 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.

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 Manager's office is located adjacent to the Control Room. The Control Room has lavatory and kitchen facilities.

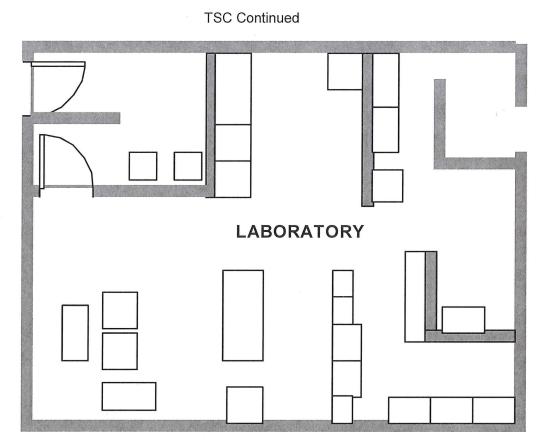


7.1.1.2 Emergency Function

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.



7.1.4.2 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. 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.

Enclosure Attachment 3 PG&E Letter DCL-18-064

NUREG-0654 Table B-1 Comparative Chart

Diablo Canyon (DCPP) Site On-Shift Table Comparison

Major Functional Area	Major Tasks	Position Title / Expertise	Table B-1 On-shift	DCPP Rev 3.03 On-Shift	DCPP Rev 4.18 On-Shift	DCPP Proposed On-shift
Plant Operation and Assessment of Operation		Shift Manager / Work Control Shift Foreman (SRO)	1	1	1	1
Aspects		Unit Shift Foreman (SRO)	1	2	2	2
		Licensed Operators (RO)	2	4	5	4
		Non-Licensed Operator (NO)	2	5	5	5
Emergency Direction and Control (Emergency Coordinator) ***		STA / Shift Supervisor or facility manager	1**	1**	1**	1**
Notification / Communication	Notify State/local and federal personnel, maintain	Shift Phone Talker	1****	1	1	1
	communication	Shift Phone Talker				1
Radiological Accident Assessment and Support of	Dose Assessment	Work Control Shift Foreman/STA (SRO)			1**	1**
Operational Accident	In-Plant surveys	C&RP Technician	1	1	1	1
Assessment	Chemistry / Radiochemistry	C&RP Technician	1	1	1	
Plant System Engineering	Technical support	Work Control Shift Foreman/STA (SRO)	1	1	1	1
Repair and Corrective Actions	Repair and Corrective Actions	Mechanical Maintenance	1**	1**		
		Electrical Maintenance	1**	1**		
		Inst & Control Maintenance		2	2	
Protective Actions (In-Plant)	Radiation Protection: a. Access Control b. HP Coverage for repair, corrective actions, search and rescue first-aid & firefighting c. Personnel monitoring d. Dosimetry	C&RP Technicians	2**		2**	1
Firefighting		Fire Department per Tech Specs			5	5
Rescue Operations and First-Aid			2**	2**	2**	2**
Site Access Control and Personnel Accountability	Security, firefighting communications, personnel accountability	Security personnel per security plan			1	
Total On-Shift	-		10	18	25	22

^{**} May be provided by shift personnel assigned other functions

***Overall direction of facility response to be assumed by EOF director when all centers fully manned

***May be performed by engineering aide to shift supervisor

DCPP Site 60 Minute Augmented ERO Table Comparison

Major Functional Area	Major Tasks	Position Title / Expertise	Table B-1 Augment (60 min)	DCPP Rev 3.03 (60 min)	DCPP Rev 4.18 (60 min)	DCPP Proposed (60 min)
Notification / Communication	Notify State/local and federal personnel, maintain communication		2	3	3	
Radiological Accident Assessment and Support	Emergency Response & Recovery Director	Senior Manager	1	1	3	1
of Operational Accident	Offsite Dose Assessment	Sr. HP Expertise		1	1	
Assessment	Offsite Surveys	C&RP Technician		2	2	
	_	Driver		2	2	
	Onsite (out of plant) Surveys	C&RP Technician	2	1	3 3 1 2	1
		Driver	1	1	1	1
	In-Plant surveys	C&RP Technician	1	2	2	2
	Chemistry / Radiochemistry	C&RP Technician	1	1	1	
	RP Supervision	Site RP Coordinator		~	1	
Plant System Engineering	Technical Support	Core/Thermal Hydraulics		1	1	
		Electrical	1	1	1	
		Mechanical	1	1	1	
		Ops Advisor (TSC)			1	
Repair and Corrective Actions	Repair and Corrective Actions	Mechanical Maintenance Advisor	1	1	1	
		Rad Waste Operator	1	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
		Mechanical Coordinator			1	1
	,	Electrical Maintenance	1	2	1	1
		I&C Technician		1	1	
		OSC Director		VON BUILD	1	
Protective Actions (In- Plant)	Radiation Protection: a. Access Control b. HP Coverage for repair, corrective actions, search and rescue first-aid & firefighting c. Personnel monitoring d. Dosimetry	RP Technicians	2	4	4	1
Public Information	Information Development	Public Info Officer			1	
	Facility Operation and Control	JIC Director			1	
Total Augmented ERO	· · · · · · · · · · · · · · · · · · ·		15	26	32	8

DCPP Site 90 Minute Augmented ERO Table Comparison

Major Functional Area	Major Tasks	Position Title / Expertise	Table B-1 Augment (90 min)	DCPP Rev 3.03 (90 min)	DCPP Rev 4.18 (90 min)	DCPP Proposed (90 min)
Notification / Communication	Notify State/local and federal personnel, maintain communication					4
Radiological Accident Assessment and Support of	Emergency Response & Recovery Director	Senior Manager				2
Operational Accident	Offsite Dose Assessment	Sr. HP Expertise				3
Assessment	Offsite and Onsite (out of	FMT Leader				2
	plant) Surveys	FMT Driver				2
	In-Plant surveys	C&RP Technicians				2
	Chemistry / Radiochemistry	Chem/HP Technicians				
Plant System Engineering	Technical Support	Core/Thermal Hydraulics				1
	*	Electrical Engineer				1
		Mechanical Engineer				1
Repair and Corrective	Repair and Corrective Actions	Mechanical Maintenance				
Actions		Electrical Maintenance		n) (90 min) (90 min		
		I&C Technician				1
		OSC Director				1
Protective Actions (In- Plant)	Radiation Protection: a. Access Control b. HP Coverage for repair, corrective actions, search and rescue first-aid & firefighting c. Personnel monitoring d. Dosimetry	C&RP Technicians				1
Total Augmented ERO	a. Dominous					21

Enclosure Attachment 4 PG&E Letter DCL-18-064

Offsite Response Organization Concurrence Letters



August 16, 2018

Mr. Mike Ginn Manager, Emergency Preparedness Diablo Canyon Power Plant P.O. Box 56 Avila Beach, CA 93424

Dear Mr. Ginn:

Thank you for the opportunity during the meeting on August 8, 2018 to review the Diablo Canyon Power Plant (DCPP) License Amendment Request (LAR) for proposed changes to Emergency Response Organization (ERO) staffing and augmentation. I appreciate the Emergency Preparedness (EP) representatives providing a briefing and assurances that the ERO will continue to support Offsite Response Organizations (OROs) for offsite radiological monitoring and assessment as well as timely notification and communication.

With this assurance, Cal OES supports the proposed LAR to the NRC for extension of the goal for staffing its augmented Emergency Response Organization (ERO) from the current goal of 60 minutes to 60/90 minutes.

Respectfully,

MICHAEL WARREN

Manager, Radiological Preparedness Unit

cc: Ron Alsop, County of San Luis Obispo Office of Emergency Services Kelly Van Buren, County of San Luis Obispo Office of Emergency Services



COUNTY OF SAN LUIS OBISPO

Administrative Office Office of Emergency Services Wade Horton, County Administrative Officer Ron Alsop, Emergency Services Manager

August 16, 2018

Mr. Mike Ginn Manager, Emergency Preparedness Diablo Canyon Power Plant PO Box 56 Avila Beach, CA 93424

Offsite Response Organization Acknowledgement of Opportunity to Review Pacific Gas and Electric Company's Diablo Canyon Power Plant (PG&E/DCPP) Proposed Emergency Plan Change to Augmented ERO Staffing Goal from 60 minutes to 60/90 minutes.

Dear Mr. Ginn:

Emergency Preparedness (EP) representatives from DCPP provided a briefing and reviewed with ORO stakeholders the proposed license amendment request (LAR) seeking NRC approval for extension of the goal for staffing its augmented Emergency Response Organization (ERO) from the current goal of 60 minutes to one of 60/90 minutes.

This review was conducted during a quarterly meeting on August 8, 2018 with Offsite Response Organizations (ORO) from the County of San Luis Obispo Office of Emergency Services (SLO County OES) and the California Governor's Office of Emergency Services (Cal OES).

During the referenced meeting, EP staff provided assurances that the proposed change will not adversely affect existing capabilities for prompt notification to ORO stakeholders of an Emergency Classification Level (ECL), for radiological monitoring and assessment support, and for ongoing communication and coordination of emergency information.

Sincerely.

Ron Alsop

Emergency Services Manager

Count of San Luis Obispo County Office of Emergency Services

Cc: Mike Warren, California Governor's Office of Emergency Services
Cindy Nolan, California Governor's Office of Emergency Services
Kelly Van Buren, County of San Luis Obispo Office of Emergency Services

Enclosure Attachment 5 PG&E Letter DCL-18-064

Map of Offsite Pressurized Ion Chamber Locations

