Pacific Gas and Electric Company®

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PG&E Letter DCL-08-097

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

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

Dear Commissioners and Staff:

In accordance with 10 CFR 50.4 and 10 CFR 50.54(q), Pacific Gas and Electric Company is submitting changes to the Emergency Plan (E-Plan) for Diablo Canyon Power Plant, Units 1 and 2. Enclosure 1 provides a description of the changes.

As provided under 10 CFR 50.54(q), these changes have been made without prior NRC approval since they do not decrease the effectiveness of the E-Plan, and the plan, as changed, continues to meet 10 CFR 50.47(b) and 10 CFR 50, Appendix E. Revision bars in the right-hand margin note the changes.

These changes do not contain privacy/proprietary information identified in accordance with NRC Generic Letter 81-27. Enclosure 2 provides a listing of the applicable revision/change for each section of the E-Plan.

If there are any further questions regarding these changes, please contact Mr. Mark S. Persky of my staff at (805) 545-6275.

Sincerely,

James R. Becker
Site Vice President

ddm/4509/A0726433
Enclosures
cc: Michael S. Peck, NRC Senior Resident Inspector
Alan B. Wang, NRC Project Manager
cc/enc: Elmo E. Collins, (2) NRC Region IV

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DIABLO CANYON POWER PLANT, UNITS 1 AND 2, EMERGENCY PLAN CHANGE SUMMARY

GENERAL CHANGE DESCRIPTION

Section 6: Emergency Measures

6.3.2: Off-site Dose Calculation

Emergency Plan Section 6.3.2 was revised to implement a change in the Plant Data Network (PDN) computer in the control room to determine the R-2 calculation from EP R-2, "Release of Airborne Radioactive Materials Initial Assessment."

The Diablo Canyon Emergency Plan – Applicable Revision/Change by Section

• Section 1 – Definitions & Acronyms	Rev. 4, Change 04
• Section 2 - Scope and Applicability	Rev. 4, Change 02
• Section 3 - Summary of Emergency Plan	Rev. 4, Change 00
• Section 4 - Emergency Conditions	Rev. 4, Change 09
• Section 5 - Organizational Control of Emergencies	Rev. 4, Change 09
• Section 6 - Emergency Measures	Rev. 4, Change 08
• Section 7 - Emergency Facilities and Equipment	Rev. 4, Change 11
• Section 8 - Maintaining Emergency Preparedness	Rev. 4, Change 06
• Section 9 – Recovery	Rev. 4, Change 01
• Section 10 – References	Rev. 4, Change 01
• Appendix A – Procedures	Rev. 4, Change 04
• Appendix B – Offsite Agency Support Documentation	Rev. 4, Change 00
• Appendix C – Non-Applicable NUREG-0654 Standards	Rev. 4, Change 00
• Appendix D – Emergency Action Level Technical Basis Manual	Rev. 4, Change 00

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6. EMERGENCY MEASURES

6.1 ACTIVATION OF EMERGENCY RESPONSE ORGANIZATION

The four emergency classification levels require a varying degree and scope of emergency response. The Interim Site Emergency Coordinator will immediately initiate actions to limit the consequences of the event and to return the plant to a safe and stable condition. The emergency organization for a Notification of Unusual Event consists of the normal shift personnel. Normally, no further site emergency staff 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 or partially activate an Emergency Response Facility to limit the consequences of an event prior to meeting the requirements of a declared emergency and to return the plant to a safe and stable condition.

For Alert, Site Area Emergency, or General Emergency, the Technical Support Center (TSC), Operational Support Center (OSC), and Emergency Operations Facility (EOF) will be staffed and activated by the emergency response organization (ERO).

6.1.1 ERO Notification

When a plant emergency has been declared at the Alert, Site Area Emergency, or General Emergency level, the emergency response organization (ERO) will be notified to activate.

The ERO notification process will be initiated within approximately 10 minutes of the emergency declaration.

6.1.2 Emergency Response Facility Activation

The on shift staff will be augmented by the minimum staff ERO within approximately 60 minutes of the initiation of ERO notification.

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

Following emergency response facility activation, the transition of emergency responsibilities from the normal operating organization to the emergency response organization will progress as described later in this section, with the ERO assuming responsibilities as described in Section 5.

Minimum staff ERO is defined as DCPP management, administrative, and technical support personnel who will augment the on-shift minimum plant staff in emergency situations as specified in Section 5 and NUREG-0654, Table B-1.

Minimum staff position vacancies may be filled by other qualified individuals not already filling a minimum staff position.

The phrase "approximately 60 minutes" reflects a goal and an expectation, rather than a nominal 60-minute limit. ERO augmentation within 70 minutes, will be considered acceptable towards meeting the goal of approximately one hour.

NOTE: The Recovery Manager reporting from San Francisco area may require 2.5 hours to reach the EOF and is exempted from the 60 minute augmentation requirement. Until the Recovery Manager arrives, the Advisor to the County will act as the interim Recovery Manager.

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. The transition from the normal operating organization to the On-Site Emergency Organization involves three basic steps: 1) filling appropriate positions on an interim basis with personnel who are immediately available at the time of the emergency; 2) notifying plant personnel who are off-site, or are on-site but who may not be aware of the emergency, that their assistance is required; and 3) filling positions in the emergency organization with appropriate plant personnel as they arrive at the TSC or OSC.

1) Notification of Shift Manager/Shift Foreman

   The first step in the event of an emergency is to notify the Shift Manager/Shift Foreman. To accomplish this the individual discovering the emergency shall immediately report it to the Control Room and the Shift Foreman/Shift Manager would be informed.

2) Notification of On-Site Personnel by Site Emergency Signal or Fire Signal

   The Shift Manager (Interim Site Emergency Coordinator) shall make an initial evaluation of the situation and, if warranted, shall authorize the sounding of the emergency signal (described in Section 7).

   If the emergency involves a fire, the person who discovers the fire will dial 779, which rings in the Control Room. The SM will sound the fire alarm and make a PA announcement stating the nature and location of the emergency and the response being requested. The fire alarm is a separate and distinct signal.

6.1.4 Initial Deployment of On-Shift Personnel

The initial deployment of on-shift personnel is strongly dependent upon the extent of the emergency and the time it occurs. To illustrate this, a possible sequence of events is considered below for a major radiological release incident that occurs when a minimum crew is available on-site.

1) The person discovering the incident would communicate it to the Control Room and the Shift Manager would be informed.

2) The Shift Manager would classify the emergency and assume the position of Interim Site Emergency Coordinator (ISEC). The Interim Site Emergency Coordinator would have the Control Operator sound the Emergency Signal. The operators would then report to the Control Room unless they were engaged in a critical operation.

3) The Interim Site Emergency Coordinator would instruct the Shift Foreman to supervise the operators in making appropriate plant control manipulations to respond to the event.

4) Licensed Operators would form the operations group and operate plant equipment and controls from the Control Room.

5) The third Shift Foreman would act as the Emergency Evaluation Coordinator (EEC) and provide 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 EEC is primarily responsible for evaluation of this aspect of the emergency.

6) The Interim SEC would assign personnel to perform emergency notifications to San Luis Obispo County, California State OES and the Nuclear Regulatory Commission, until the TSC has been activated.

7) The Interim SEC would assign personnel to perform emergency response organization personnel call-out, PG&E management notifications and notification of the NRC Resident Inspectors until activation of the TSC.

8) The Nuclear Operators and Health Physics Technicians would be available as required for operating equipment, radiological monitoring, notification, or other tasks as they are identified. The Diablo Canyon Security Watch Commander would ordinarily continue normal duties.

9) As other individuals begin to arrive at the site, they will respond to their assigned emergency facility.

6.1.5 Notification of Off-Site Plant Personnel

The Emergency Response Organization (ERO) is grouped in to teams for rotating ERO "on call" duty assignments. On call ERO personnel maintain their availability for callout to ensure that staffing emergency response facilities are available. All ERO personnel (on call and off duty) will be called out for an event at an Alert, or higher emergency classification level. If a minimum staffing position cannot be filled by the person on call, qualified personnel available will be assigned. The "on-call" positions ensure minimum required staffing for emergency response facilities is available. These key positions have been selected to be compatible with the staff augmentation goals recommended by NUREG-0654, Table B-1. The minimum staff requirements are provided in Section 5 per the criteria of NUREG-0654, Table B-1.

Call-out of personnel is accomplished by pagers or telephone. Typical driving time for personnel living in the nearby communities to arrive on-site between 30 to 60 minutes, depending on where they live. On-shift personnel are fully capable of controlling and taking appropriate mitigating actions should those off-site persons called out be delayed.

6.1.6 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 Plan describes the physical nature of these warning systems, and this section describes on-site personnel response.

6.1.6.1 Site Emergency Signal

1) The 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.

2) All personnel and visitors upon receiving initial site access training are issued a wallet type card which provides site emergency signal response information. Upon receipt of the emergency signal, on-site personnel are trained to immediately report to predestinated assembly areas unless otherwise directed by the site PA system.

3) 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.

6.1.6.2 Containment Evacuation Signal

The containment evacuation signal utilizes the 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.

6.1.6.3 Fire Signal

In the event the fire alarm is sounded, the Fire Fighters 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.

6.1.6.4 Criticality Monitor

The criticality alarms in the fuel handling areas and nearby hot machine shop are horns 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.

6.1.7 Activation of Corporate Emergency Organization

The Corporate Emergency Organization is discussed in Section 5.

The Corporate Emergency Organization can be activated by the Site Emergency Coordinator by notifying the designated on-call Recovery Manager. If for any reason this individual cannot be reached, the Corporate Plan can be activated by calling the Corporate Security or Corporate Emergency Planning Department in San Francisco. These positions are available on a 24-hour basis.

The Nuclear Power Generation Business Unit is promptly notified of any occurrence that would be reported under the provisions of the Emergency Plan. The extent to which corporate resources are activated is based on staged mobilization depending on the nature of the occurrence.

6.1.8 Activation of 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 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 classifications. 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 the power plant to the Sheriff's Office 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 form is used. This form provides for such entries as the classification of the emergency, if a radioactive release is taking place, potentially affected population and areas, and what protective measures may be necessary. Follow-up messages provided to off-site authorities provide a comprehensive description of the incident with a characterization of the radioactivity release and appropriate recommended protective measures.

6.2 ASSESSMENT ACTIONS

In Section 4, a brief description of the basic assessment process is discussed for each of the postulated emergencies that were described. This section contains a more detailed discussion of the four most important assessment functions; namely, the proper functioning of emergency cooling systems for emergencies involving possible degradation of the core heat sink, the assessment of core condition in such a circumstance, the estimation of the magnitude of a release, and the determination of the environmental consequences of a release.

6.2.1 Verifying Proper Operation of the Emergency Core Cooling System (ECCS)

The design basis of the ECCS is to prevent a radioactive release by protecting the three major fission product barriers: the fuel cladding, the reactor coolant system piping, and the containment structure. A breach of all three barriers is necessary before radioactive contamination is released to the atmosphere that might pose a hazard to the health and safety of the public. If a Loss of Coolant Accident (LOCA) or Steam Generator Tube Rupture (SGTR) occurs, the reactor protection system will automatically trip the reactor and initiate the ECCS.

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

- Verify the reactor is shutdown.
- Verify the operation of the ECCS equipment.
- Diagnose the accident.
- Provide corrective actions to mitigate or alleviate the problem.

If the expected action is not obtained or the equipment does not function properly, the EOPs direct alternate, remedial responses. Criteria for upgrading to a general emergency during a LOCA event are found in the Emergency Action Level Classifications.

6.2.2 Assessing Challenges to Fission Product Barriers

During the implementation of the EOPs, the Emergency Evaluation Coordinator (EEC) is responsible for monitoring the reactor's critical safety functions to ensure that the remaining fission product barriers are not breached. These functions are:

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

Upon completion of the initial accident diagnosis, the EEC 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 utilized to mitigate the problem.

6.2.3 Assessing Core Damage

Preliminary core damage assessment uses parameters such as reactor vessel water level and core temperatures to confirm that conditions do not exist which can lead to core damage. This is quantified through the use of containment hydrogen and area radiation monitor readings.

Long-term core damage assessment methodology uses reactor coolant and containment air sample analysis to determine the extent of core damage more accurately.

6.2.4 Assessing Release Magnitude

During the initial stage of an off-site release, the Emergency Evaluation Coordinator will make a preliminary dose assessment of any off-site release to determine the accident classification per Emergency Plan Implementing Procedures. After UDAC is activated, they will take over these responsibilities and perform more detailed calculations. These calculations use various radiation monitors, ventilation flow rates, wind speed, direction and stability classification, and the 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.

6.3 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.

6.3.1 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.

6.3.2 Off-Site Dose Calculation

The scope of off-site dose calculation is to establish methodologies for performing early phase dose assessments used for evaluating the need to evacuate, shelter, or implement other appropriate protective actions for individuals located within the DCPP Basic Emergency Planning Zones (EPZ).

In the event of an accident at the Diablo Canyon Power Plant (DCPP) involving an actual or a potential release of radioactive materials, projected off-site doses to members of the public will be determined primarily using the EP R-2 program on a Plant Data Network (PDN) computer in the Control Room, or the Emergency Assessment and Response System (EARS) once UDAC is staffed. As a back-up method, in the event EARS is not operational, a PC-based dose calculation program is available which employs a manual dose calculation methodology. The manual calculations can also be performed without a PC using dose calculation implementing procedures. The EARS and manual dose calculations methodologies are both based on the current stochastic and deterministic risk models, developed originally by the International Commission on Radiation Protection (ICRP) in publication numbers 26, 30, and 60.

The ICRP risks models have been adopted by the Environmental Protection Agency (EPA) Regulatory Guide 400-R-92-001, "EPA Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," which serves as the source document for implementing Protective Action Guides (PAG) to protect the members of the public and emergency workers in the event of a radiological accident at DCPP.

The implementing procedures used for performing manual dose calculations are EP R-2, written for use by Control Room Operators, or EP RB-9 and 11, written for use by the UDAC dose assessment staff.

All manual dose calculation implementing procedures share the same basic methodologies. The differences are:

1) EP R-2 uses a more simplified set of assumptions to allow plant operators to perform manual dose calculations quickly with less chance of error, thus allowing operators to focus their efforts on returning the plant to a safe and stable condition. The R-2 calculation can also be done by invoking a computer based program, which automatically retrieves the necessary radiation monitor, meteorology, and flow rate information to perform the calculation.

2) EP RB-9 and 11 are intended to provide users greater accuracy for projecting dose, and this methodology is employed by the PC-based program installed as a backup to EARS.

6.3.3 Estimate the Magnitude of the Release and/or Release Rate

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

6.3.4 Determine If On-Site Personnel Assembly Areas are Affected

In the event of a major release, protection of on-site personnel is a high priority consideration. On-site monitoring is conducted to assure personnel safety in the assembly areas by performing dose rate and air sample surveys. Results of these surveys are transmitted to the Radiological Advisor who may recommend evacuation or other protective measures as warranted.

1) Determine whether the external dose rate has reached an action level for evacuation.

2) Determine whether iodine sampling is necessary.

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

   In general, air samples are immediately collected if the general γ dose rate exceeds 3 mR/hr, and can be deferred for dose rates below this. This criterion is based upon predicted noble gas/iodine release rates for major accidents. Air samplers used to detect and measure radioiodine concentrations in the DCPP vicinity have a measuring range between 1E-10 and 1E-6 μCi/cc.

6.3.5 Perform General Monitoring On-Site

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

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

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

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

The data gathered from on-site monitoring will be forwarded by satellite telephone to the Control Room or the TSC where that data can be evaluated by responsible assessment personnel. These personnel will then recommend protective actions, as appropriate, to the Site Emergency Coordinator. The Site Emergency Coordinator will make the decision to notify appropriate company or county personnel regarding release status and make appropriate action recommendations.

6.3.6 Establish Off-Site Monitoring

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

6.3.6.1 Identification of Monitoring Locations

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

1) Emergency Monitoring Locations

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

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

2) Real time monitoring and environmental sampling locations

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

3) Dairies

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

6.3.6.2 Environmental Measurements

The field monitoring teams have a standard series of samples and measurements that they are prepared to make. These samples and the major uses to which the various data can be put are discussed below.

1) External dose rate and/or count rate three (3) feet above ground.

   Measured external dose rates may be used in comparison of Effective Dose Equivalent (EDE) for verification of dose projection models.

2) Ground Surveys

   Count rate measurements made close to the ground using a shielded probe can provide an indication of the magnitude of ground contamination..

3) Air Samples

   Provide airborne radioiodine and particulate data if the plume is present. May be used for estimating internal exposure using dose conversion factors.

4) Vegetation Samples

   Provide information on vegetation contamination for evaluating food chain doses for ingestion pathway monitoring.

5) Soil Samples

   Provide information on ground contamination which is used to estimate food chain doses for ingestion pathway monitoring.

6) Liquid Samples

   Can be used to estimate ingestion doses for long-term program.

7) Smear Surveys

   Indicate need for decontamination measures. Smear samples may also be analyzed by a lab to determine isotopic content of ground deposition.

6.3.6.3 Assessment of Off-Site Field Monitoring Data

Environmental monitoring data serves as part of the basis for determining what protective actions are required to protect the public. The group in the Unified Dose Assessment Center (UDAC) has the function to assess this data and recommend protective actions to the county emergency response director. This group is composed of utility, county, state, and federal personnel. Details on the mechanisms by which this group functions are as follows:

1) Field monitoring teams will meet at a predetermined location to obtain emergency sampling kits, radios, etc., and will be dispatched to standard monitoring sites in affected areas. Samples will be collected and analysis made as discussed earlier in this section.

2) The locally obtained survey data will be communicated by satellite telephone to the Control Room (CR) or TSC initially or, once established, to the Unified Dose Assessment Center (UDAC) at the EOF using the County Brown radio network as the primary communications mode with satellite telephones available as a secondary backup. Results from samples requiring more detailed laboratory analysis will be forwarded to UDAC from the various laboratories using telecommunication links.

3) UDAC personnel will interpret this data and, based on this assessment, make recommendations to the decision-making body. The primary method for handling this data will be through operator use of the Emergency Assessment and Response System (EARS) with backup methods as necessary to provide reliability.

6.3.7 Backup Off-Site Dose Assessment Calculation Methods

Backup methods for assessing radiological doses due to an airborne release provide redundancy to the automated real-time system normally employed. The backup methods (manual calculation procedure, PC-based dose calculation program), utilize simpler models that have been standardized and accepted in the industry for assessing such off-site releases and form the basis for the more time-responsive automated system.

6.4 PROTECTIVE ACTIONS

6.4.1 Alerting of On-Site Personnel

On-site personnel are alerted that an emergency condition exists by the sounding of the site emergency signal. Visitors either have been briefed on the meaning of the plant emergency signals or are escorted by individuals knowledgeable on actions to be taken upon activation of the signals. This applies to visitors and contractors outside and within the plant Protected Area. This signal provides an immediate alert for all on-site personnel.

Supplementary alerting mechanisms for limited areas include the fire alarm, criticality monitor, and containment evacuation signals. A physical description of these alarm signals is included in Section 7 of this Plan.

On-site tests have been performed to verify the response time for on-site personnel when the site emergency signal is sounded. These tests, conducted with considerable numbers of construction workers on-site, have shown assembly and accountability of employees can be expected in approximately 30 minutes. Even with peak construction forces on-site (> 5000 total people), total site accountability required no more than 60 minutes. Agricultural workers on the bench land will be alerted by Security personnel per procedure.

6.4.2 On-Site Personnel Accountability

Several methods for personnel accountability are employed at the plant. Each of these is discussed below.

1) Plant Personnel

The accountability procedures for plant personnel are intended to provide rapid assessment of who is on-site at any given time and where they are located. Several means are employed for personnel accountability, including control of identification badges, supervisory control, and written accountability logs.

As a prelude to the following discussion, it should be noted that plant personnel are provided with automobile passes enabling them to pass the Avila Gate entrance to the site on a 24-hour basis.

a) Control of Identification Badges

Each person requiring long term site access for their employment is issued a Protected Area identification badge for personal identification. The Protected Area identification badge is required for unescorted access into the Protected Area. Personnel visiting the site are provided visitor identification badges that are activated for the visiting period. Visitor badges provide an easily identifiable visual indication when expired. All personnel with authorized site access can be uniquely identified as a visitor or individually using their Protected Area identification badge. Personnel issued Protected Area identification badges are required to maintain control over their badges.

b) Supervisory accountability

In general, it is the responsibility of supervisors to know which of their personnel are on-site and their work location. Personnel report to their designated work headquarters and inform their supervisors of their presence. The supervisors are then responsible for knowing the general whereabouts of their personnel during the remainder of the work period.

c) Computerized Security System

A computerized record is maintained of personnel who enter or leave the Radiological Controls Area, the Power Block, and the Protected Area. The computerized security system can be used to determine personnel accountability inside these areas.

Personnel entering the Radiological Control Area must obtain written authorization in the form of a Routine Work Permit (RWP) or a Special Work Permit (SWP).

A log of all visitors to the Protected Area is maintained by the security staff.

d) Emergency assembly and accountability process

(1) Assembly - At the sounding of the site emergency signal, all non-essential site personnel are to report to their normal work locations and await further instructions. All personnel essential for emergency response and safe operation of the plant (ERO member, Plant Operations, Security, or Medical) will assemble at designated assembly areas or Emergency Response Facilities.

(2) Accountability - At the sounding of the site emergency signal all individuals remaining within the Power Block are accounted for and the names of missing individuals are determined within 30 minutes. Once established, accountability is maintained throughout the course of the event. Should un-accounted for personnel be determined missing, search and rescue operations are initiated. Accountability is coordinated by the Diablo Canyon Watch Commander and results forwarded to the Site Emergency Coordinator.

2) Visitors

The following assembly procedures are employed for visitors at DCPP. A visitor, as used in this section, refers to anyone who is not a member of the plant staff or is not employed with their normal work location at the site. This includes persons from outside the company as well as company personnel who are not assigned to the plant.

a) Assembly Process

(1) Prior to being allowed escorted entry into the Protected Area, visitors are required to sign the Visitor Log at the security building when they arrive.

(2) In general, visitors will have business with one or more plant personnel and their accountability while in the Protected Area will be the responsibility of their escort personnel. During plant start-up, refueling outages, or other special conditions, certain visitors may work for extended periods in the plant. In some cases, visitors may require unescorted access privileges while in the plant. Where these personnel are assigned to established work areas, instructed and badged as plant personnel, they may be treated as members of the plant staff for purposes of personnel accountability.

(3) Each visitor is escorted when in a Radiological Controls Area unless instructed in the basic fundamentals of the company's radiation protection program, including: identification of emergency and evacuation signals and action to be taken if they are sounded, identification of possible radiation hazards locations, and use of applicable protection and monitoring devices.

Visitors are assigned to an assembly area. Accountability is accomplished by checking the names of each person against the visitors log.

6.4.3 Evacuation of On-Site Nonessential Personnel

Evacuation of on-site nonessential personnel is one important protective action considered in emergency situations. Nonessential personnel include visitors and contractor personnel, and any other on-site individuals not having emergency response assignments.

1) Evacuation Criteria

The decision to evacuate nonessential personnel shall be made by the Site Emergency Coordinator.

Since nonessential personnel are not emergency workers, they typically would be evacuated in the event of a SITE AREA or GENERAL EMERGENCY; however, in certain situations it may be desirable to evacuate these individuals at the ALERT level

The Site Emergency Coordinator's decision to evacuate nonessential personnel will be based on the desire to protect the health and safety of these individuals within the constraints of the situation. It is desired to keep nonessential personnel exposures as low as reasonably achievable, and to the extent possible, lower than annual federally established limits for members of the public.

Anytime evacuation is considered it must be weighed against the consequences of not evacuating. In certain cases evacuation may result in higher evacuee exposures than if individuals remain in a shielded or otherwise protected area. In these cases evacuation would be inappropriate.

2) Evacuation Route Considerations

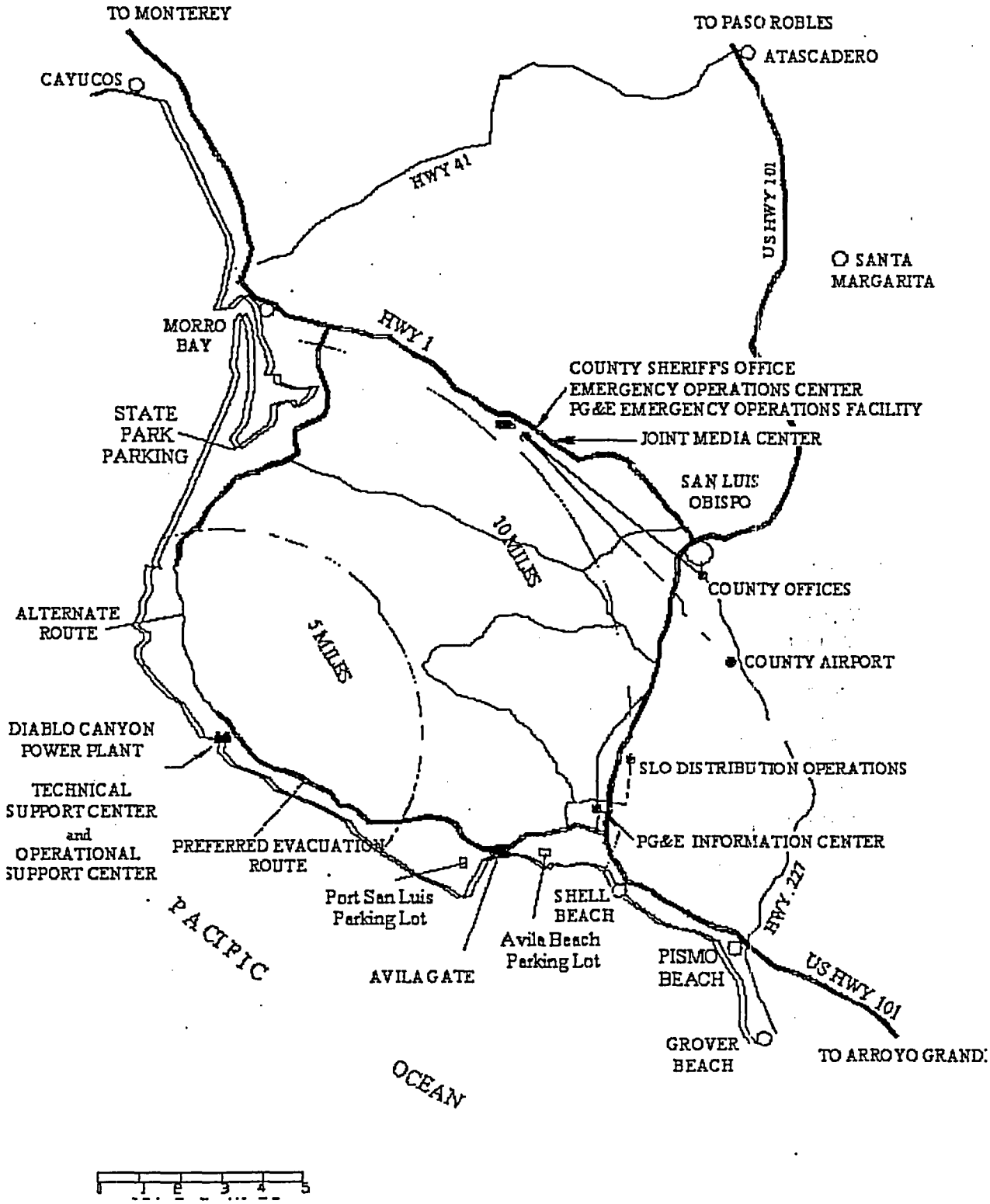
Two routes are available for evacuation from the site. The preferred route is south along the access road to Avila Gate. If conditions prevent the use of the southern route, the evacuation can take a northern route through Montana de Oro State Park. The southern route is preferred because the road is better. The northerly route would only be used in the event of northern wind with a large-scale radiological release or if the southern route is impassable or unsafe.

Alternate off-site assembly areas are available for each route. For the southern route, evacuees can meet at the PG&E Information Center, the frontage road along U.S. 101 north of the Information Center, the Port San Luis Parking Lot, or the parking lot at Avila Beach. For the northern route, evacuees can meet at the Ranger Station in the State Park. Preferred locations would be determined by selecting a direction away from the wind direction of movement. If it is a precautionary evacuation, locations nearer the site would be suitable, otherwise the more distant locations would be preferred.

The decision on which route and rendezvous point to be used shall be made by the Site Emergency Coordinator.

Evacuation routes are illustrated below.

Evacuation Routes for On-Site Personnel



3) Evacuation Procedure

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

a) The Site Emergency Coordinator will authorize the evacuation and determine which route and assembly areas shall be used. This information will be transmitted to the Evacuation Coordinator, appointed by the Site Emergency Coordinator.

b) The Liaison 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.

c) 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.

d) 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 in the field monitoring team (FMT) kit storage areas.

e) A C&RP Technician will leave with each group of evacuees, to monitor doses as the evacuation proceeds.

f) 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 pocket 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.

g) If evacuated non-essential personnel arriving at the 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 Information Center. The showers are stocked with soap, shampoo, towels, clothing, and other decontamination supplies.

h) The evacuation team leader is responsible for personnel accountability, communication with the Evacuation Coordinator and all other activities at the off-site assembly area.

6.4.4 Use of On-Site Protective Equipment and Supplies

Certain protective measures may be utilized to reduce the exposure to emergency workers.

6.4.4.1 Respiratory Protective Equipment

The quantities and types of respiratory protective equipment available for an emergency are discussed in Section 7. Respirators for routine plant use are also available for emergency use.

Before an emergency worker may use a respirator, prerequisite requirements for respirator training, fitting and medical surveillance must be satisfied. If all respirator program requirements are not satisfied, no credit should be taken for the respirator when estimating exposure reduction prior to exposure (i.e., respirator Protection Factor = 1).

It is the responsibility of the Radiological Advisor or Radiological Manager to determine when respiratory protective equipment use is appropriate, and to select the correct equipment for the expected radiological conditions. The use of respirators should consider maintaining TEDE ALARA for the individual worker; respirators should not be used exclusively for reducing radioiodine or lens of the eye exposure.

6.4.4.2 Protective Clothing

Protective clothing is maintained on-site for routine use and is available in sufficient quantities for use during emergencies.

Protective clothing provides minor protection against penetrating external radiation sources, but is intended to keep contamination off the clothes and skin of individuals and to control the spread of contamination. Protective clothing should be worn when entering known or potentially contaminated areas and should be removed upon exiting.

6.4.4.3 Thyroid Blocking Agent

Stable potassium iodine (KI) tablets are stockpiled and maintained at various on and off-site locations for distribution to emergency workers for emergencies involving significant releases of radioiodine. KI protects an individual's thyroid from airborne radioiodines by blocking the thyroid with stable iodine prior to or during exposure. Since it is an FDA approved drug, the Site Emergency Coordinator or the Recovery Manager, with advice from the Radiological Advisor or the Radiological Manager, shall determine when the issue for use of KI would be appropriate.

6.4.4.4 Emergency Dosimetry

An ample supply of dosimetry, both self-reading and various types of thermoluminescent dosimeters (TLDs) are available at the Radiologically Controlled Area (RCA) access control point, ready for immediate issue to emergency workers.

Supplemental emergency dosimetry is stored in kits at various on and off-site locations. The purpose of the kits is for issuing dosimetry quickly to emergency workers that:

- are not RCA qualified, or
- need high range self-reading dosimetry, or
- cannot easily gain access to normal dosimetry storage areas.

Equipment for reading TLDs is available on-site. During an emergency, individuals that routinely operate the TLD reader will either be on-site or are available to be called in to provide the capability of reading TLDs within a few hours.

6.4.5 On-Site Contamination Control Measures

Diablo Canyon's contamination control program consists of radiation control standards that specify measures to minimize the potential for personnel contamination and the spread of contamination. These standards specify criteria for surveys, the establishment of contamination control areas and acceptable surface contamination levels. In the event of an emergency, these same criteria would be used to determine which additional areas of the site would require access control measures. Likewise, these criteria would be used to determine when area and equipment could be returned to normal use.

To assure on-site personnel do not receive excessive exposure from the ingestion pathways, drinking water and food supplies that have been within the boundary of a RCA, should not be consumed.

Equipment and supplies necessary to establish contamination control areas, and for the decontamination of equipment, areas, or personnel are routinely stored in the Auxiliary Building. Additional supplies are stored at the Learning Services Building and various off-site locations. Decontamination supplies are at the PG&E Information Center.

6.4.6 Alerting Off-Site Personnel

Off-site emergency support personnel are alerted by telephone or radio of emergency events and situations as discussed in Section 6.1.

1) Alerting the general public is the responsibility of local governmental authorities. Specifically, it is the responsibility of the SLO County Emergency Organization which is headed by the County Administrator in the role of County Emergency Services Director under the advisory direction of the County Board of Supervisors.

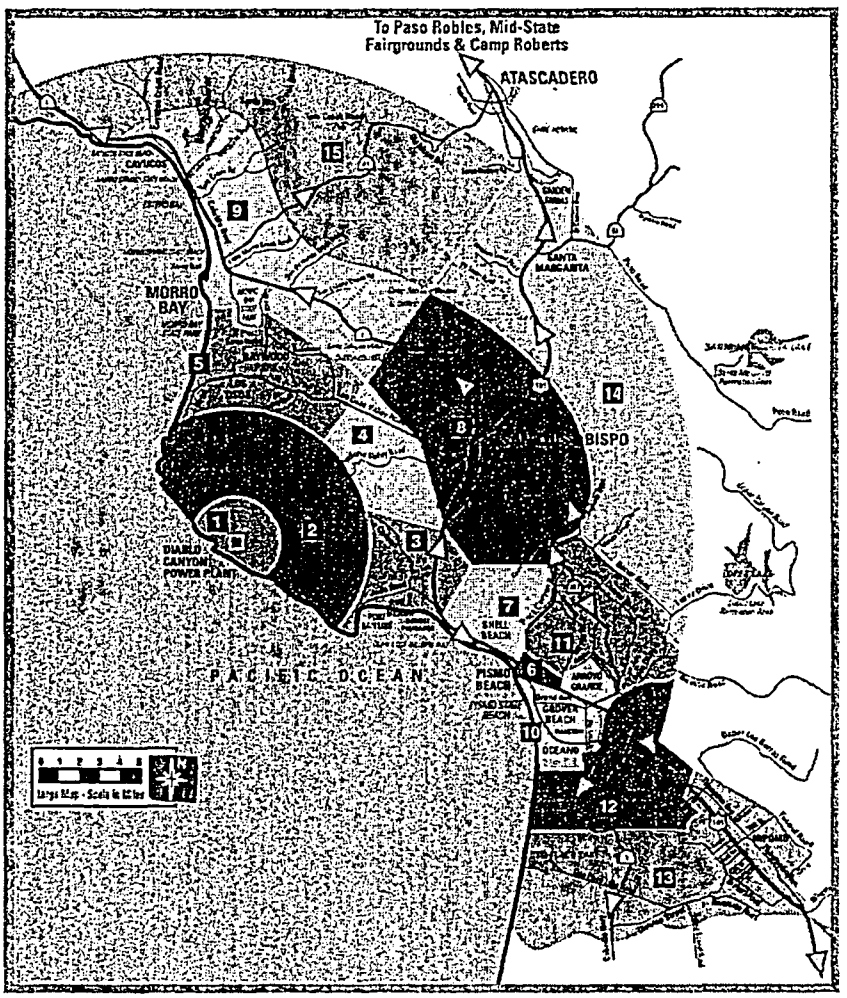
2) The lead agency for implementing the public alerting process is the SLO County Sheriff's office.

3) The Early Warning System is supplemented by special provisions for certain segments of the public as described in the SLO County Emergency Plan. Provisions are included in the plan for the Sheriff's office to promptly warn all persons in the Basic Emergency Planning Zone upon the determination general protective actions are necessary. For events of lesser significance, the timing, extent, and method of an emergency public warning (prior to the issuance of a normal media release) would be at the discretion of the County Emergency Organization.

6.4.7 Protective Actions for the General Public

The responsibility and authority for ordering protective actions for members of the public rests with the state and local emergency organizations. Maps used for describing the population distribution around the nuclear facility by evacuation zone is illustrated in the figures below.

Protective Action Zone and Public Education Zone



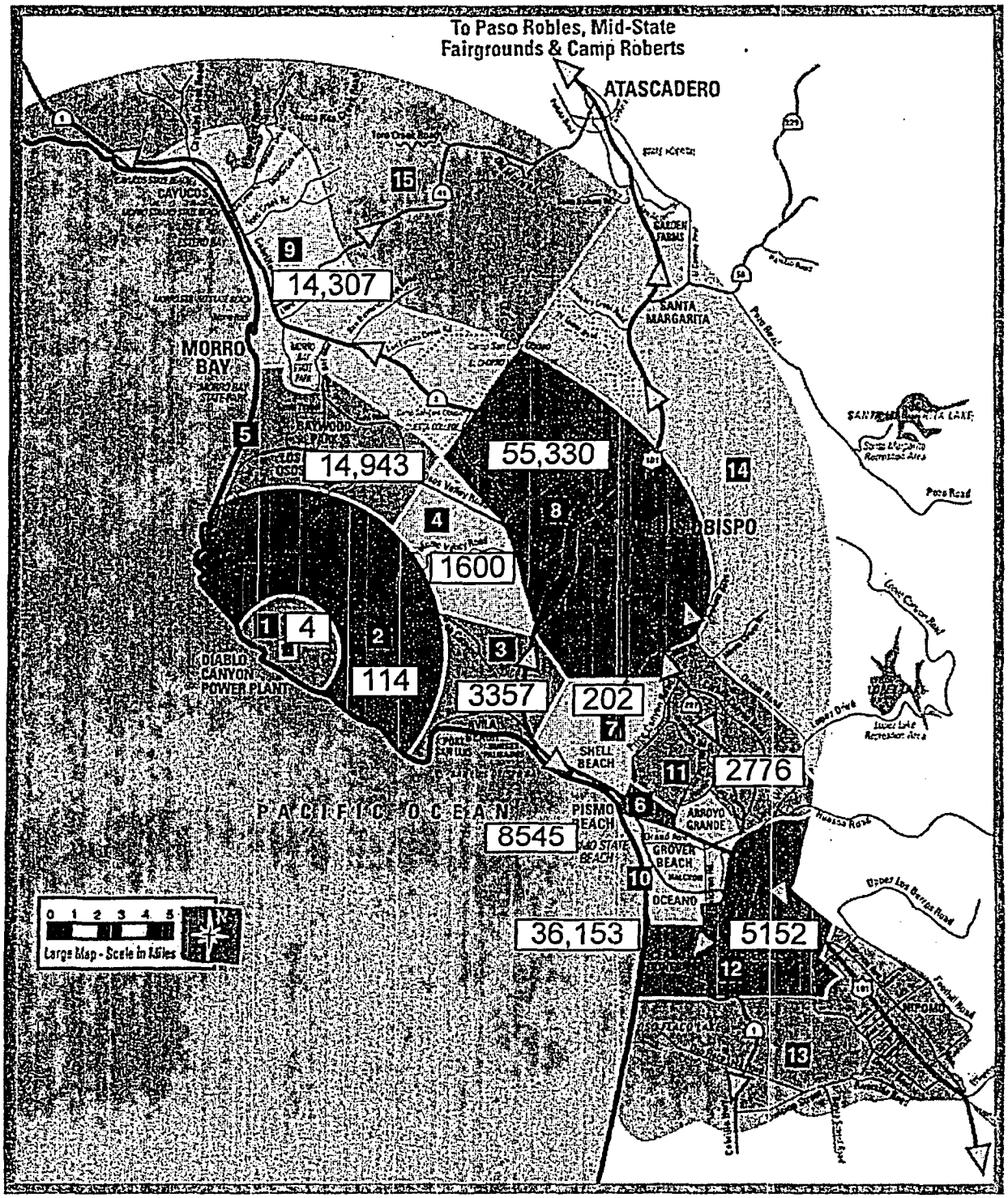
Protective Action Zones (PAZs)

1. 2 - mile
2. 6 - mile
3. Avila/San Luis Bay/See Canyon/Squire Canyon
4. Perfumo Canyon/Los Osos Valley
5. Baywood/Los Osos
6. City of Pismo Beach
7. Indian Knob/Price Canyon
8. San Luis Obispo Area
9. Morro Bay/Cayucos
10. Five Cities, Southern Portion
11. Orcutt Road, Lopez Drive, Route 227
12. Nipomo North of Willow Road

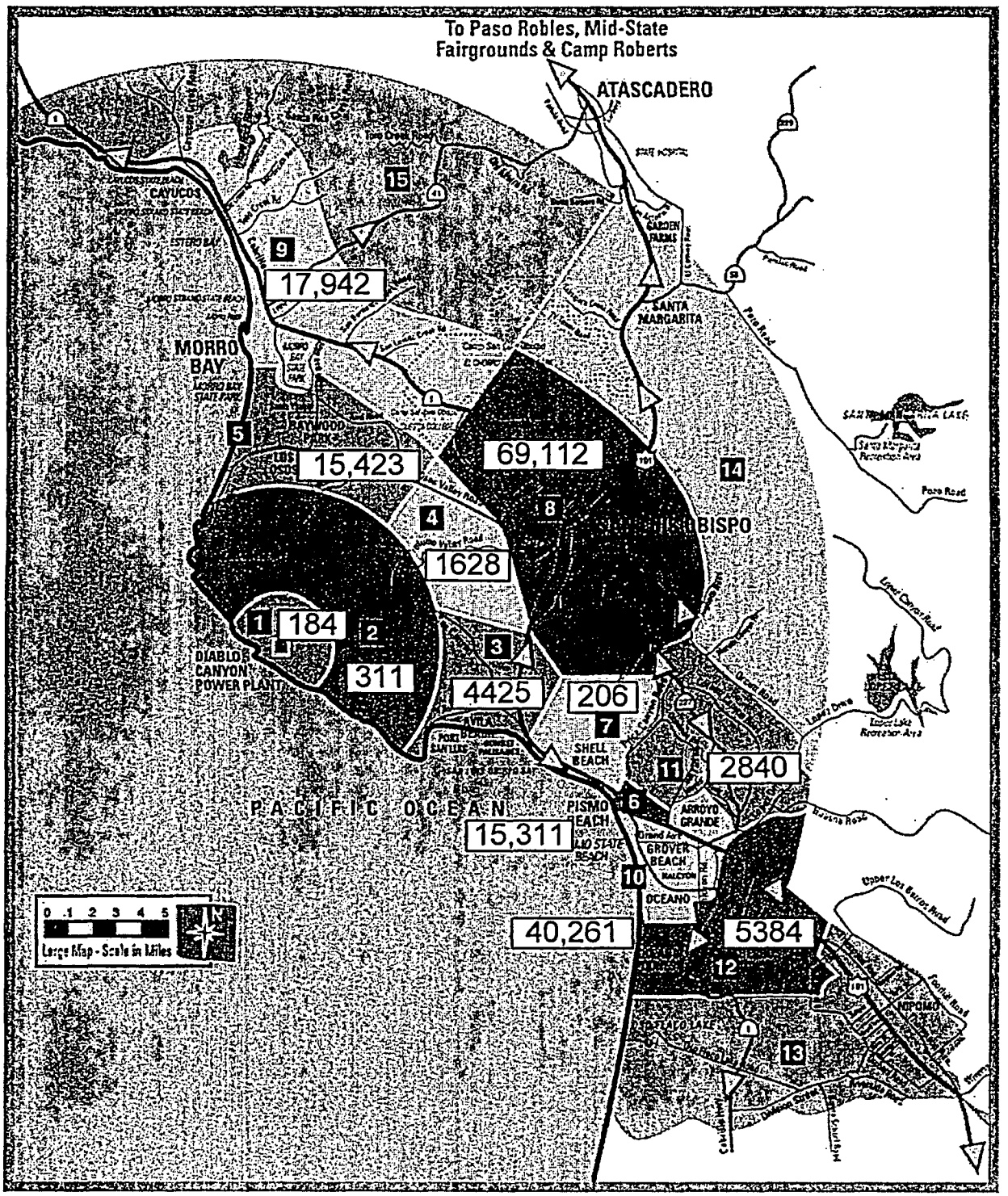
Public Education Zones (PEZs)

13. Nipomo
14. Cuesta Pass/Santa Margarita
15. Route 41/Cypress Mountain Dr.

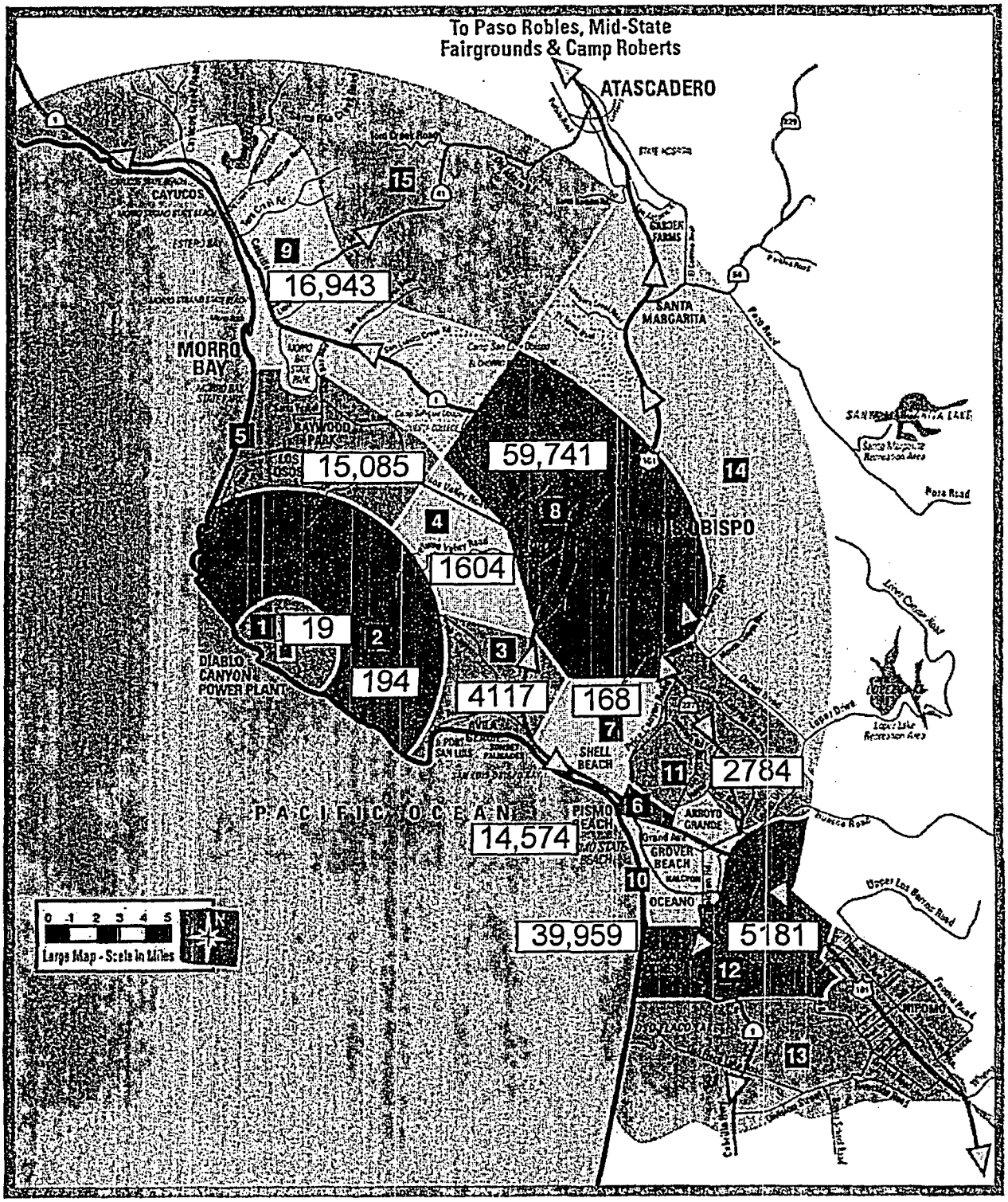
2002 Residential Population by Evacuation Zone



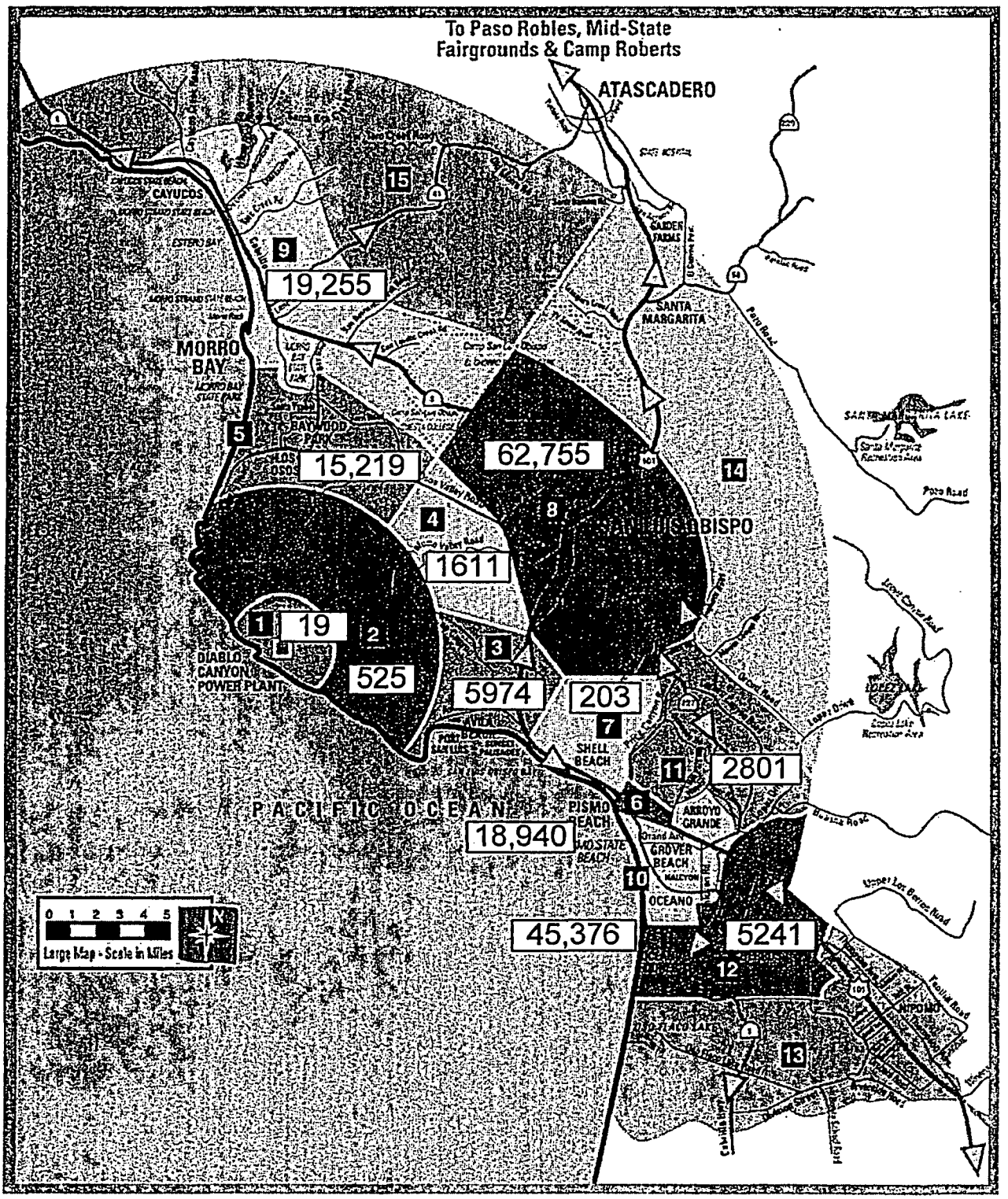
2002 Total Population Including Estimated Transients Normal Weekday



2002 Total Population Including Estimated Transients Nighttime



2002 total population including estimated, transients - Peak summer weekend



2002 Estimated Peak Populations and Evacuation Times by PAZ

Estimated Peak Populations and Evacuation Times by PAZ				
Protective Action Zone		Population	Estimated Cumulative Evacuation Time	
			Normal Weather	Adverse Weather
1	2-mile boundary	184	2.50	2.75
2	6-mile boundary	311	2.50	2.75
3	Avila Beach, Squire Canyon, See Canyon, San Luis Bay	4425	2.75	3.25
4	Los Osos Valley, Perfumo Canyon	1628	2.75	3.25
5	Baywood, Los Osos	15423	11.5	13.75
6	City of Pismo Beach	15311	11.5	13.75
7	Indian Knob, Price Canyon	206	11.50	13.75
8	San Luis Obispo	69112	11.50	13.75
9	Morro Bay, Cayucos	17942	13.00	15.50
10	Five Cities (Southern Portion)	40261	13.00	15.50
11	Orcutt Rd, Lopez Drive, Rt. 227	2840	13.00	15.50
12	Nipomo, North of Willow Rd.	5384	13.00	15.50

SOURCE: Reference 4

Public Protective Actions

The Interim Site Emergency Coordinator, Site Emergency Coordinator, or Recover Manager should recommend protective actions based on the following criteria.

4) Criteria Based Upon Nature of Emergency

Evacuation of some or all of the persons within protection action zones (PAZs) 1 and 2 may be recommended for any GENERAL EMERGENCY situation regardless of whether or not any radioactive materials have been released from the plant. In situations of a fast breaking event or security related event, sheltering all persons within appropriate PAZs may be recommended to increase their heightened awareness and readiness should immediate protective actions become necessary.

When plant conditions warrant (i.e., a release is imminent or occurring) a recommendation to take immediate actions, such as selective or general sheltering or evacuation may be made by the plant staff. Precautionary actions or general evacuation recommendations will be made by a joint assessment group as described in the County Emergency Plan and would be recommended by the plant staff.

5) Criteria Based Upon Public Exposure

Insofar as possible, evacuation of members of the general population should be carried out to prevent persons from receiving doses in excess of those listed below.

PAGS for the Early Phase of a Nuclear Incident
(Reference EPA 400-R-92-001)

PROTECTIVE ACTION	PAG (Projected Dose)	COMMENTS
Evacuation (or sheltering[a])	1-5 rem[b]	Evacuation (or, for some situations, sheltering[a]) should normally be initiated at 1 rem. Further guidance is provided in Section 2.3.1 of EPA 400
Administration of Stable Iodine	25 rem[c]	Requires approval of State medical officials.

[a] Sheltering may be the preferred protective action when it will provide protection equal to or greater than evacuation, based on consideration of factors such as source term characteristics, and temporal or other site-specific conditions (see Section 2.3.1 of EPA 400).

[b] The sum of the effective dose equivalent resulting from exposure to external sources and the committed effective dose equivalent incurred from all significant inhalation pathways during the early phase. Committed dose equivalents to the thyroid and to the skin may be 5 and 50 times larger, respectively.

[c] Committed dose equivalent to the thyroid from radioiodine.

a) Evacuation Routes

Evacuation routes are dependent on the meteorological conditions at the time of the accident. The meteorological conditions at the Diablo Canyon Power Plant site are very strongly influenced by the local topography. The Irish Hills which run approximately northwest-southeast redirect most onshore windflows in these directions. The diurnal nature of the California coastal meteorology also has a strong influence by causing very frequent weak northerly and easterly offshore drainage winds during the night and early morning hours.

Because of the unusual meteorological characteristics of the Diablo Canyon site, four predominant wind conditions will be used in discussing evacuation routes and procedures taken by outside agencies. These conditions are as follows:

Northwest winds -- These are predominantly daytime winds which occur during fair weather and frequently are very strong.

Southeast winds -- These winds generally are associated with storm conditions and early morning drainage flow. They increase in frequency during the wet winter months.

Offshore northeast winds -- These are predominantly night or early morning winds that are usually weak. Occasional strong offshore winds occur between winter storms where inland high pressure systems dominate the weather.

Onshore southwest winds -- These are the least prevalent winds at Diablo Canyon, occurring less than 5 percent of the time. Onshore winds are highly localized and seldom persist for more than an hour or two.

b) Evacuation Procedures

Evacuation of members of the general public is the responsibility of the County Emergency Organization, working in conjunction with the State Office of Emergency Services, and will be carried out in accordance with their prearranged plans. See the SLO County/Cities Nuclear Power Plant Emergency Response Plan for descriptive text and maps describing evacuation routes, evacuation areas, relocation centers and shelter areas. The general steps to be followed in the event an evacuation is required are as follows:

(1) Based upon plant conditions, on-site and off-site measurements, and meteorological data, the Sheriff's Department will be instructed by the County Emergency Services Director to take protective actions which may include selected or full evacuation. The area to be evacuated, the evacuation routes, and shelter locations will also be agreed upon by the County Emergency Organization Command Group. The Site Emergency Coordinator or Advisor to the County Emergency Organization after EOF activation will keep the County informed of pertinent information regarding the company's evaluation of existing conditions.

(2) The Sheriff's Department assisted by other response agencies, is to carry out the evacuation in accordance with established procedures.

(3) Reentry into the evacuated areas is to be prevented until it is determined that radiological conditions will permit unrestricted access.

c) Evacuation Time Estimates

Studies conducted by demography specialists (see Reference 4) provide information on various evacuation scenarios that could take place as a result of evacuation of the Basic Emergency Planning Zone (BEPZ). A general conclusion for the time required to totally evacuate the BEPZ was 4-1/2 to 10 hours. This applies to normal road conditions. Factors which could increase evacuation times would include time of day (daytime), degraded weather/visibility, and road destruction.

The scenario development and conditions leading to the time estimates, identified by the specialty studies referred to earlier, have been made available to state and county officials for use in their preparation of the emergency response planning documents.

Protective actions to be ordered by county authorities are summarized in the SLO County/Cities Nuclear Power Plant Emergency Response Plan. PG&E cooperates with county and state officials to ensure the county plan reflects appropriate guidelines on how the time estimates will ultimately be used to determine the protective actions to be taken off-site.

Responsibility for ordering protective actions by the public is legally the ultimate responsibility of local government. PG&E will act in an advisory capacity, giving technical assessments of the conditions at the plant and the probabilities for a potential off-site release as well as other pertinent information. This information, along with PG&E's recommended protective actions, will be assessed by responsible county officials in determining appropriate actions to be taken.

6.4.8 Off-Site Contamination Control Measures

The responsibility for ordering and conducting off-site contamination control actions rests with the SLO County Emergency Organization. However, PG&E is prepared to work with the SLO County and other participating governmental agencies to formulate and implement an appropriate program, if required.

6.4.9 Emergency Personnel Exposure

During an emergency, circumstances may dictate personnel receive exposures in excess of the 10 CFR 20 limits. Some examples of the circumstances would be lifesaving actions or other assessment or corrective actions that would serve to mitigate the consequences of the emergency.

During an emergency and prior to arrival of the Recovery Manager, the Site Emergency Coordinator can authorize emergency exposure in excess of 10 CFR 20 limits. These emergency exposure limits are described in EPA 400. The Recovery Manager assumes this responsibility after he takes his position at the EOF. Emergency workers may receive doses as indicated below.

Guidance on Dose Limits for Workers Performing Emergency Services
(Reference EPA 400-R-92-001)

Dose Limit[a] (rem)	Activity	Condition
5	all	
10	Protecting valuable property	Lower dose not practicable
25	Life saving or protection of large populations	Lower dose not practicable
>25	Life saving or protection of large populations	Only on a voluntary basis to persons fully aware of the risks involved (See Tables 2-3 and 2-4 of EPA 400)

[a] Sum of external effective dose equivalent and committed effective dose equivalent to nonpregnant adults from exposure and intake during an emergency situation. Workers performing services during emergencies should limit dose to the lens of the eye to three times the listed value and doses to any other organ (including skin and body extremities) to ten times the listed value. These limits apply to all doses from an incident, except those received in unrestricted areas as members of the public during the immediate phase of the incident (see Chapters 3 and 4 of EPA 400).

6.4.10 Decontamination

A decontamination shower is located near the access control area of the auxiliary building. Two off-site decontamination showers are located at the Information Center. Supplies include solid waste disposal supplies for contaminated clothing, personnel decontamination supplies, replacement clothing, and other related miscellaneous items.

All radiation protection personnel and licensed operators are trained in decontamination techniques as part of their radiation protection training.

6.4.11 Medical Transportation

Arrangements for medical transportation are discussed in Sections 5 and 7.

6.4.12 Medical Treatment

The company retains a number of physicians, hospitals and ambulances throughout its service area on a medical panel. The panel in the vicinity of Diablo Canyon is given below. French Hospital in San Luis Obispo, San Luis Ambulance, and Marion Medical Center in Santa Maria have agreements with the company for handling accidents involving radioactive contamination.

Physicians, Ambulances, and Hospitals Serving the Immediate Area around Diablo Canyon

Ambulances

NAME	REMARKS
San Luis Ambulance Service	Radiation Exposure Patients

Hospitals

NAME	REMARKS
French Hospital	Radiation Exposure Patients - External Defibrillation Equipped
Marian Hospital	

Physicians

NAME	REMARKS
Doctor's Med Stop	Industrial Injury Treatment
Family Medical Center	Industrial Injury Treatment
Paul Georghiou, M.D.	Medical/Radiation Consultant

6.5 CROSS REFERENCE TO NUREG-0654

NUREG 0654	DCPP Emergency Plan	NUREG 0654	DCPP Emergency Plan
A.1.e	6.1.7	J4	6.3, 6.4.3
B.2	6.1.5	J5	6.4.2
B.6	6.1	J.6.a	6.4.4.1
E.2	6.1, 6.1.7, 6.1.8	J.6.b	6.4.4.2
E3	6.1.8	J.6.c	6.4.4.3
E7	6.1.8	J7	6.1, 6.2.4, 6.4.6, 6.4.7
F.1.e	6.1	J8	6.4.7
H.4	6.1, 6.1.7, 6.1.8	J.10.a	6.4.7
H.11	6.4.5, 6.4.10	J.10.b	6.4.7, 6.4.3
I.2	6.2.3, 6.3	J.10.c	6.4.6
I.3.a	6.3	J.10.m	6.4.6
I.3.b	6.2.4, 6.3	K.1.a to g	6.4.9
I.4	6.3	K.2	6.4.9
I.6	6.3	K.3.a and b	6.4.4.4
I.7	6.3	K.5.a and b	6.4.5, 6.4.10, 6.4.12
I.8	6.3	K.6.a to c	6.4.5
I.9	6.3	K.7	6.4.5, 6.4.10, 6.4.12
I.10	6.2.4, 6.3	L.1	6.4.12
J.1.a to d	6.1.3, 6.1.6, 6.4.1	P.7	6.5
J2	6.4.1, 6.4.3	P.8	6.5
J3	6.4.1, 6.4.4, 6.4.5		