

**SAN LUIS OBISPO COUNTY/CITIES**

**NUCLEAR POWER PLANT EMERGENCY RESPONSE PLAN**



REVISION DATE:  
JANUARY 2014

San Luis Obispo County  
Office of Emergency Services

SAN LUIS OBISPO COUNTY  
OFFICE OF EMERGENCY SERVICES  
**REVISION PAGE**

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## FOREWORD

This San Luis Obispo County/Cities Nuclear Power Plant Emergency Response Plan (NPP ERP) outlines the authorities, concepts, and operating procedures for responding to potential radiological emergency situations in San Luis Obispo County that may occur at the Diablo Canyon Power Plant.

The Plan's objectives are to facilitate the command and control of offsite (the term “offsite” is a standard emergency management term that references the area near a nuclear power plant but outside the boundaries of the plant itself) radiological emergency operations and to enhance the County's preparedness in initiating protective actions for the general public in the event of radiation releases at the Diablo Canyon Power Plant. Emergency procedures to manage radiological emergencies at the Power Plant site itself are prepared by the Plant operator and are covered in a separate Emergency Plan.<sup>1</sup>

The Nuclear Power Plant Emergency Response Plan is a component of the San Luis Obispo County Emergency Operations Plan (EOP). The EOP is the county's master emergency plan and provides authorities and guidance to the overall emergency management and planning system for the county. Authorities and procedures outlined in the EOP also carry over to the NPP Emergency Response Plan.

The Nuclear Power Plant Emergency Response Plan itself is actually made up of three parts:

Part One is the Administrative Plan which provides an overview of the potential hazards from a nuclear power plant, describes the emergency planning process, and provides information on how the overall emergency management system related to nuclear power plant response preparedness works.

Part Two is no longer needed as it contained reference material that is now contained and updated in the various Standard Operating Procedures (SOPs) in Part Three.

Part Three is actually made up of about between fifty and sixty separate “Standard Operating Procedures” (SOPs) which provide emergency response guidelines for various agencies or other entities that would have a role in responding to emergency response related to Diablo Canyon. These SOPs are essentially used as standalone response procedures for agencies such as schools, California Highway Patrol, Sheriff's Department, County Fire and many other entities with a role in a Diablo Canyon emergency response.

In addition to providing guidance for emergency response to a nuclear power plant incident, both the County Emergency Operations Plan and the NPP ERP provide for “continuity of operations” within emergency management. Individuals fulfilling an emergency response position may delegate authority to another individual of choice, therefore granting the designee equal

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<sup>1</sup>Diablo Canyon Power Plant Unit 1 & 2 Emergency Plan, Revision 4, September 2001, with current updated sections. Pacific Gas and Electric Company Nuclear Power Generation.

responsibility and authority. This ensures a continuing line of oversight and authority during any emergency response.

While this emergency plan is intended for use by response personnel, nuclear power plant preparedness and related information for the public can be found in the San Luis Obispo County edition of the YP telephone book or online at the County Office of Emergency Services Web site, which can be accessed through the County Web site at <http://www.slocounty.ca.gov/oes>.

### **PLAN ADOPTION**

This Plan is the official San Luis Obispo County/Cities Emergency Response Plan for responding to a radiological emergency at the Diablo Canyon Power Plant. The Plan's responsibilities and authorities are effective as indicated below:

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Chairperson  
San Luis Obispo County Board of Supervisors

-----  
Date

**DISTRIBUTION**

<b>COPY</b>	<b>QUANTITY</b>	<b>LOCATION</b>	<b>DATE</b>
Original	1	OES Office File	
Working Copy	1	OES Office File	
EOC	5	Command Room*, Operations Section, Plans Section, EOC File Cabinet*, Joint Information Center	
County Depts.	5	Supervisors, Each District	
	1	County Administrator	
	1	Assistant County Administrator	
	5	Office of Emergency Services*	
	1	County Agricultural Commissioner	
	1	Air Pollution Control District	
	1	County Counsel	
	1	County Public Works	
	1	Environmental Health Director	
	1	County Health Agency Administrator	
	1	County Health Officer	
	1	Planning Department	
	1	County Sheriff	
	1	Patrol Commander	
	1	Sheriff Substation, North	
	1	Sheriff Substation, South	
	1	Sheriff Substation, Coast	
	1	County Fire, Chief	
	1	County Fire, ECC	
	1	General Services	
1	Human Resources		
1	Social Services		

	1	Information Technology Dept	
	1	Comm Shop	
Cities	1	City of Arroyo Grande	
	1	City of Atascadero	
	1	City of Grover Beach	
	1	City of Guadalupe	
	1	City of Morro Bay	
	1	City of Paso Robles	
	1	City of Pismo Beach	
	1	City of San Luis Obispo	
	1	City of Santa Maria	
	1	Police Department, Arroyo Grande	
	1	Police Department, Atascadero	
	1	Police Department, Grover Beach	
	1	Police Department, Morro Bay	
	1	Police Department, Paso Robles	
	1	Police Department, Pismo Beach	
	1	Police Department, San Luis Obispo	
	1	Fire Department, Atascadero	
	1	Fire Department, Morro Bay	
	1	Fire Department, Paso Robles	
	1	Fire Department, San Luis Obispo	
1	Five Cities Fire Authority		
1	Fire Department, Cayucos		
Other Counties	1	Santa Barbara County	
	1	Monterey County	
	1	Kern County	
Hospitals	1	Arroyo Grande Community Hospital	

	1	Atascadero State Hospital	
	1	French Hospital	
	1	Sierra Vista Regional Med Center	
	1	Twin Cities Community Hospital	
Schools	1	County Office of Education	
	1	Cuesta College	
	1	San Luis Coastal USD	
	1	Cayucos Elementary School District	
	1	Lucia Mar USD	
State Agencies	1	Cal Trans, District 5 Ops and Maintenance Director	
	1	Cal Trans, District 5, Traffic Management Center	
	1	California Highway Patrol, Coastal	
	1	California Highway Patrol, SLO	
	1	California Highway Patrol, Santa Maria	
	1	California Highway Patrol, Templeton	
	1	California Men's Colony	
	1	Cal OES, Sacramento	
	1	Cal OES, Southern Region, Los Alamitos	
	1	Cal Poly, Office of Vice President for Admin and Finance	
	1	California Dept of Public Health, Environmental Mgmt Branch, Sacramento	
	1	State Dept of Parks and Rec, SLO Coast Area Office	
	1	State Dept of Parks and Rec, Oceano Dunes State Vehicle Rec Area	
	1	Paso Robles Event Center, Mid State Fair Grounds	
Military Agencies	1	Camp Roberts, Commanding Officer	
	1	Camp San Luis Obispo, Commanding Officer	

	1	US Coast Guard, 11 <sup>th</sup> District, Alameda, Commanding Officer	
	1	US Coast Guard Station, Morro Bay, Officer in Charge	
	1	US Coast Guard, Marine Safety Officer, Los Angeles/Long Beach, Commanding Officer	
Federal Agencies	2	FEMA, Oakland	
	1	US Nuclear Regulatory Commission, Region IV, Arlington, TX	
	1	US Nuclear Regulatory Commission, Head Quarters, Local Assistance	
Other Agencies	1	San Luis Ambulance	
	1	San Luis Obispo Regional Transit Authority (SLORTA)	
	1	Port San Luis Harbor District	
	1	American Red Cross (SLO Chapter)	
	1	National Weather Services, Los Angeles/Oxnard	
Libraries	1	California Polytechnic State University Library, SLO	
	1	San Luis County Library, SLO	
Utilities	1	PG&E DCP, Tech Support Center	
	1	PG&E DCP, Emergency Operations Facility	
	1	PG&E DCP, Plant Library	
	1	PG&E DCP, Emergency Planning	
	1	PG&E, San Francisco	
	1	PG&E, Los Padres District Office, SLO	
	1	YP Telephone Service, SLO	
	1	Southern California Gas, SLO	

\* Distribution at these locations includes a copy of the Diablo Canyon Power Plant Development of Evacuation Times Estimate

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## **PLAN ORGANIZATION**

### **PART ONE, THE ADMINISTRATIVE PLAN**

This part of the Plan is intended as an introduction and overview. It includes the overall planning goals, authorities, glossary, hazard assessments, and a concept of operations section which describes in broad terms the county/cities emergency response to an emergency declared at the Diablo Canyon Power Plant.

### **PART TWO, DELETED**

### **PART THREE, STANDARD OPERATING PROCEDURES (SOPs)**

This part of the Plan includes procedures describing emergency response at an individual agency or department level, including individual duties for specific emergency positions. The SOPs provide more detailed guidance for the emergency worker to implement the objectives of the Administrative Plan. The SOPs are essentially individual response procedures used by local and state agencies responding to a Diablo Canyon emergency.

**PART 1 – SECTIONS**

SECTION 1 INTRODUCTION

SECTION 2 HAZARD ASSESSMENT

SECTION 3 PLANNING BASICS

SECTION 4 EMERGENCY MANAGEMENT

SECTION 5 CONCEPT OF OPERATIONS

SECTION 6 EMERGENCY RESOURCES

SECTION 7 PROGRAM MAINTENANCE

## SECTION 1 - INTRODUCTION

### 1. PURPOSE

The purpose of the Nuclear Power Plant Emergency Response Plan is to establish organizational responses and responsibilities for San Luis Obispo County and Cities in the event of a radiological accident at the Diablo Canyon Power Plant (DCPP). This Plan prescribes the actions required to preclude or to minimize radiation exposure to the general public outside the plant site boundary. In addition, the Plan:

- Identifies the scope of potential hazards which form a basis for planning.
- Identifies authorities and assigns responsibilities for both emergency planning and emergency response activities.
- Establishes the county's official policy in response to an emergency.
- Establishes the County Emergency Organization for handling an emergency, and
- Identifies and incorporates those provisions which must be planned for in advance in order to effectively respond to an emergency.

### 2. OBJECTIVES

This Plan is designed to meet the following specific objectives:

- 2.1 To identify the county organization responsible for the direction and control of nuclear power plant emergency response plan operations.
- 2.2 To describe the necessary pre-emergency preparations, concept of operations, organization, protective measures, and supporting systems to implement the Plan.
- 2.3 To establish the framework for implementing the California Standardized Emergency Management System (SEMS) and National Incident Management System (NIMS) for San Luis Obispo County. SEMS is intended to facilitate multi-agency and multi-jurisdictional coordination, particularly between San Luis Obispo County and other local governments, including special districts and state and federal agencies, in emergency operations.
- 2.4 To provide a basis for incorporating nongovernmental agencies and organizations who have resources necessary to meet foreseeable emergency requirements into the County Emergency Organization.

- 2.5 To describe the alert and notification systems and procedures used between County, State and Federal agencies, and with the plant manager or designee, of Diablo Canyon Power Plant (DCPP), owned by Pacific Gas and Electric Company (PG&E).
- 2.6 To describe the means and procedures for timely alert and notification of the population in the Emergency Planning Zone (EPZ) in the event that protective actions are or may become necessary.
- 2.7 To describe the criteria, means and procedures for implementing specific protective actions, such as sheltering or evacuation of the affected population within the Emergency Planning Zone.
- 2.8 To respond to specific information requests from Federal and State regulatory agencies such as Nuclear Regulatory Commission (NRC), FEMA, and the California Office of Emergency Services (Cal OES).
- 2.9 To provide a basis on which county departments and local agencies can establish supporting plans, detailed standard operating procedures, and training programs necessary for the effective execution of emergency response activities.

### **3. COORDINATION WITH OTHER PLANS AND PROCEDURES**

Significant interfaces with other plans and procedures include the following:

- 3.1 The San Luis Obispo County Emergency Operations Plan (EOP) which addresses the planned response to extraordinary emergency situations associated with natural disaster, technological incidents, and national security emergencies in or affecting San Luis Obispo County.
- 3.2 The State of California Nuclear Power Plant Emergency Response Plan, which defines Federal, State and local responsibilities. In addition, departmental annexes such as the California Department of Public Health, Environmental Management Branch procedures document, lists specific tasks to be accomplished by the State in response to an accident at the Diablo Canyon Power Plant.
- 3.3 Santa Barbara County and the City of Santa Maria will provide support to San Luis Obispo County in terms of added resources and hosting of evacuees.
- 3.4 The California National Guard (CNG) has prepared a plan for an emergency at Diablo Canyon. That plan contains three major points of coordination with the San Luis Obispo Plan:
  - The operation of Camp San Luis in an emergency.
  - The operation of Camp Roberts in an emergency.

- The addition of staff support and equipment resources following the first day of an emergency.
- 3.5 Additional State agencies have developed emergency response plans in coordination with San Luis Obispo County including California Highway Patrol, California Department of Transportation and the CA State Parks.
- 3.6 The Federal Emergency Management Agency (FEMA), Department of Energy (DOE), and the Nuclear Regulatory Commission (NRC) may provide assistance to San Luis Obispo County, the State of California, and Diablo Canyon Power Plant based upon their emergency response plans and legislated responsibilities. Space is provided in the co-located DCP/PG&E Emergency Operations Facility (EOF) and San Luis Obispo County Emergency Operations Center (EOC) for representatives of state and federal agencies and representatives from other agencies identified in the Plan to provide specific assistance.
- 3.7 The U.S. Coast Guard is responsible for notifying vessels and establishing security and safety zones at sea. The U.S. Coast Guard Marine Safety Office Los Angeles/Long Beach (MSO LA/LB), located in Long Beach has authorized the Coast Guard to respond.
- 3.8 Pacific Gas and Electric Company (PG&E) operates the Diablo Canyon Power Plant, and is required by federal regulations to develop and implement emergency preparedness plans as a condition of facility operating licenses. The Diablo Canyon Power Plant facility plan addresses emergency measures necessary to mitigate the spectrum of postulated conventional and nuclear emergency accidents. Such measures include advising local governmental agencies of occurring or potential accidents which could have offsite consequences, and require actions within their jurisdiction for the protection of the population.
- 3.9 The San Luis Obispo County Emergency Alert System (EAS) Plan, designed in cooperation with the Federal Communications Commission (FCC), the National Weather Service (NWS) and the State of California Emergency Response Plan and provides direction and assistance with disseminating emergency information and instructions to the public.

#### **4. AUTHORITIES**

##### **4.1 Federal:**

- 4.1.1 Federal Civil Defense Act of 1950 (Public Law 920, as amended).
- 4.1.2 Atomic Energy Act of 1954
- 4.1.3 Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 (Public Law 93-288, as amended from time-to-time).

**4.2 State:**

- 4.2.1 California Emergency Services Act (Chapter 7 of Division 1 of Title 2 of the Government Code).
- 4.2.2 Agreement between the State of California and the Nuclear Regulatory Commission (NRC), pursuant to Section 274 of the Atomic Energy Act of 1954, as amended.
- 4.2.3 California Health and Safety Code. Division 104, Part 9, Radiation
  - 4.2.3.1 Control of Radioactive Contamination of the Environment (Division 104, Part 9 Chapter 5, Sections 144705-114780).
  - 4.2.3.2 Transportation of Radioactive Materials (Division 104, Part 9 Chapter 5, Section 114815-114835).
  - 4.2.3.3 Radiation Control Law (Division 104, Part 9 Chapter 8, Sections 114960-115273).
  - 4.2.3.4 Radiation Protection Act of 1999, Section 114650 et seq.
- 4.2.4 California Code of Regulations, Title 17, Public Health Part I, Chapter 5, Subchapter 4, Radiation.
  - 4.2.4.1 Registration of Sources of Radiation (Sections 30108 et seq.).
  - 4.2.4.2 Licensing of Radioactive Materials (Sections 30170-30237).
  - 4.2.4.3 Standards for Protection against Radiation (Sections 30250-30358).
  - 4.2.4.4 Transportation of Radioactive Materials (Section 30373).
  - 4.2.4.5 Participation by Local Health Department (Sections 30385-30397).
- 4.2.5 California Master Mutual Aid Agreement, Article 11, Sections 8615-8619, California Government Code.
- 4.2.6 California Government Code 8610.5 concerning nuclear power plant emergency response planning fund.

**4.3 Local:**

- 4.3.1 County of San Luis Obispo Emergency Services Ordinance No. 1384, San Luis Obispo County Code, Chapter 2.80, Emergency Organization and Functions (including County of San Luis Obispo Resolution Establishing Continuity of Government in an Emergency, San Luis Obispo Code 2.80.140).
- 4.3.2 San Luis Obispo County Emergency Operation Plan. Current Version.
- 4.3.3 Participating cities emergency ordinances (Arroyo Grande, Atascadero, Grover Beach, Morro Bay, Paso Robles, Pismo Beach and San Luis Obispo).
- 4.3.4 California Master Mutual Aid Agreement, adopted by the County of San Luis Obispo December 4, 1950

## **5. REFERENCES**

- 5.1 NUREG-0654/FEMA-REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, U.S. Nuclear Regulatory Commission/Federal Emergency Management Agency, November 1980, Revision 1.
- 5.2 Emergency Planning Zones for Serious Nuclear Power Plant Accidents, California Office of Emergency Services, November 1980.
- 5.3 State of California Nuclear Power Plant Emergency Response Plan, July 2008.
- 5.4 San Luis Obispo County Emergency Operations Plan
- 5.5 San Luis Obispo County Nuclear Power Plant Emergency Response Plan, 1976, and San Luis Obispo County Nuclear Power Plant Emergency Evacuation Plan, 1976.
- 5.6 Diablo Canyon Power Plant Units 1 and 2, Emergency Plan, Revision 4, Pacific Gas and Electric Company, September 2001.
- 5.7 State of California Nuclear Power Plant Emergency Response Plan.
- 5.8 Diablo Canyon Development of Evacuation Times Estimate, KLD Engineering, P.C. November 2012.

## **6. AGREEMENTS**

A copy of the March 2004 contract for management, administrative and financial services between the County of San Luis Obispo and the San Luis Obispo Regional Transit Authority is on file with the County Clerk and the County Office of Emergency Services. Agreements with emergency medical providers are maintained by the utility as part of the

Diablo Canyon Power Plant Emergency Plan and are also on file with County OES. Arrangements with school districts are contained in those agencies' approved and signed Standard Operating Procedures (SOP), which are updated annually and included in Part 3 of this Plan. The County does not require letters of agreements with each department and agency. The Standard Operating Procedures that are included in Part 3 of this plan serve as that agreement.

## **6.1 Memorandums of Understanding**

- 6.1.1 School Districts (Buses) (County Office of Education SOP)
- 6.1.2 Medical (Pacific Gas & Electric Co. Agreements)
- 6.1.3 Ambulance (Pacific Gas & Electric Co. Agreements)

## **6.2 Mutual Aid**

State of California agreements with San Luis Obispo County include the "California Master Mutual Aid Agreement, Article 11, Sections 8615-8619, California Government Code". This agreement will facilitate the acquisition of resources for the County of San Luis Obispo.

In addition the state standard operating procedures for California Highway Patrol, Caltrans and CA State Parks are reviewed on an annual basis by San Luis Obispo County to ensure consistency between agencies.

Federal (such as NRC) agreements are with the State of California. Federal and state resources necessary to implement concepts of operations contained in the Plan are addressed in approved state and federal general and radiological emergency response plans. (See State of California Nuclear Power Plant Emergency Response Plan. July 2008)

## **SECTION 2 - HAZARD ASSESSMENT**

### **1. SITUATION**

The Diablo Canyon Power Plant (DCPP), operated by the Pacific Gas and Electric Company (PG&E), is located on the coast approximately 12 miles southwest of the city of San Luis Obispo (see Figure 2.1, REGIONAL LOCATION MAP). The plant contains two power generating units, both of which are operational. Each unit is a pressurized water reactor having an electric power generating capacity in excess of 1,000 megawatts.

The plant is designed to use slightly enriched uranium dioxide (UO<sub>2</sub>) as a fuel. This fuel poses no major concern in its un-irradiated state as it has very low radioactivity. However, after being in the core during operation of the reactor, the fuel becomes extremely radioactive from fission by-products. These highly radioactive by-products are the main hazard in a nuclear power plant accident.

When any nuclear power plant is operated, a nuclear accident is possible. The principal deterrent to an accident is prevention through correct design, construction and operation which assures the integrity of the reactor system is maintained. Protective systems are installed and are automatically activated to counteract the resulting effects when any part of the reactor system fails.

These protective systems cannot provide absolute certainty that a failure will not occur; nor if it does occur, that it will be effectively counteracted. The probability, however, of a radiological emergency at a power plant is extremely low.

### **2. RADIATION AND HAZARDS**

Radioactivity is the natural process of unstable atoms releasing their excess energy. This emission - giving up of energy - is called radiation.

Radiation is divided into two types: non-ionizing and ionizing. Ionizing radiation is associated with nuclear power generation, as well as other commonly known sources such as medical and dental x-rays.

The extent and severity of the radiation effect upon body cells depends upon the amount of radioactive materials, the type of radiation, the exposure rate and time, and how close it is to the body. In general, the closer the source of radiation is to the cells, the greater the possibility of injury.

There are two types of ionizing radiation that must be considered in nuclear power plant emergency response planning - beta particles and gamma rays. Fission by-products of nuclear power production generally emit both beta particles and gamma rays. Other types of radiation are not discussed in this section because they are not expected to

contribute significantly to the total radioactive contamination following an accidental release from a nuclear power plant.

As used in this document, beta particle refers to a small, negatively-charged mass that is ejected from an atom as a result of nuclear rearrangement. Due to their limited penetrating ability, beta particles become a significant health hazard only when the radioactive materials emitting them are present on the surface of the skin or when they have been ingested or inhaled.

Body surface contamination from beta particle emitters will lead to irradiation of only the superficial body tissue. Ingestion or inhalation of beta particles is much more serious. Frequently the beta-emitting nuclides are isotopes of elements that can be incorporated into body constituents. They may result in long term exposure of the cells, extensive irradiation, and subsequent destruction of cells.

Gamma rays are a type of electromagnetic radiation also released from the nucleus of an atom. Because they have no mass, they can penetrate matter more readily than beta particles. They are capable of traveling significant distances in air and penetrating through the protective skin layer to the soft tissue below. This means the entire body can be irradiated from a gamma source outside the body. Similarly, when ingested or inhaled, gamma emitters can produce whole body irradiation, regardless of the location in the body where the radioisotope may be ultimately absorbed.

Determining the health effects of overexposure to radiation is complicated by the fact that there is a large range of variation in individual response. Some people may be very sensitive and others somewhat resistant to radiation. Determination of the dose/health effects relationship is further complicated by the fact that the effects of whole body irradiation differ from the effects of partial body exposure; a lethal dose in the first case might be readily tolerated in the second. The effects also depend on the timing of exposure, such as short term exposure (acute) vs. repeated (chronic) exposures spread out over days or weeks. Repeated exposures spread out over time permit a significant degree of recovery and therefore require a larger total dose to show the same effects as for an acute exposure.

Radiation is measured in three basic units:

- Roentgen (R)            The Roentgen is the unit of exposure
- Radiation  
  Absorbed  
  Dose (RAD)            The RAD is the unit of absorbed dose
- Roentgen  
  Equivalent  
  Man (REM)            The REM is the unit of dose equivalent

For the purpose of the Plan a Roentgen is equal to a RAD is equal to a REM (1R = 1RAD = 1 REM).

Table 2.1, RELATIONSHIP OF WHOLE BODY DOSE TO HEALTH EFFECTS presents representative dose/health effect relationships in man for whole body irradiation. The health effects extend from barely detectable chromosomal changes at 5 REM to a median lethal dose for short-term exposure of 300 REM, assuming no follow-up medical treatment. (A median lethal dose means that death will occur for 50 percent of the population receiving the whole body dose.) A more complete discussion of the health effects of exposure can be found in "Emergency Planning Zones for Serious Nuclear Power Plant Accidents," State of California Office of Emergency Services, November, 1980.

### **3. EXPOSURE CRITERIA**

Exposure to large quantities of nuclear radiation over a relatively short period of time can cause disabling sickness and death. Exposure to lesser quantities, either externally or through inhalation and ingestion, may result in chronic impairment to health. Radiation exposure may also damage the genetic material in the body of individuals, resulting in health impairment in future generations. Therefore, stringent guides have been established as follows: (Refer to Table 2.2, RADIATION EXPOSURE CRITERIA.)

The unit most commonly used to measure human exposure to radiation is the REM. Most normal exposures involve only a fraction of a REM. The most commonly used unit is the milliREM (mRem), one thousandth of a REM.

#### **3.1 General Population**

##### **3.1.1 Whole Body Exposure**

The US Environmental Protection Agency (EPA) recommends taking protective actions to protect the general population from exposure to airborne radioactive materials when the projected Total Effective Dose Equivalent (TEDE) is 1.0 REM. Lower values may be used if there are no major local constraints in providing protection at that level. Local constraints, such as very dense fog, may make lower values impractical to use, but in no case should the 1.0 REM be exceeded for the general population in determining the need for protective action.

Therefore, the San Luis Obispo County Plan will adopt a guideline of 1.0 REM, in accordance with the State Plan. It should be noted, that consistent with the generally accepted principle of maintaining radiation exposures "as low as reasonably achievable" (ALARA), the County may initiate protective actions at lower projected levels, if the risk of eliminating the exposure is determined to be less than the risk of exposure.

##### **3.1.2 Thyroid Dose**

Radioactive iodine concentration in the thyroid of persons exposed to radioactive iodine could result in serious damage to that organ. These isotopes could enter the body either by inhalation or ingestion. It is estimated that approximately 20 percent of that which is inhaled would enter the blood stream and selectively locate in the thyroid. The EPA guides for projected thyroid dose to the general population are 5.0 REM (thyroid Committed Dose Equivalent (CDE)) and are to be used in California, according to the State Plan.

### 3.2 Emergency Workers

Any person engaged in operations to mitigate the effects of an accident is an emergency worker. This includes public employees (and others registered with a disaster council), who are classified as disaster service workers in Section 3211.9 of the California Labor Code and Part 1, Section 4 of this Plan. Emergency workers will have their exposures monitored during the emergency on a 24 hour basis, through the exposure control procedures contained within the Plan (see Part Three, Standard Operating Procedures).

<b>EMERGENCY WORKER EXPOSURE GUIDELINES</b>		
<b>NOTE: DO NOT EXCEED EXPOSURE or DOSE LIMITS LISTED BELOW WITHOUT COUNTY HEALTH OFFICER (CHO) AUTHORIZATION.</b>		
<b>Category</b>	<b>PED Dose Limit</b>	<b>Comments</b>
<b>1. EMERGENCY EXPOSURE GUIDELINES</b>		
Administrative Exposure ( DDE dose) Limit	1,000 mrem (1.00 rem) DDE dose	Administrative Exposure limit for emergency workers is set at 1,000 mrem DDE dose. Unless authorized to continue work, return to your EWEC Command Center, or other location as directed, immediately.
Emergency Activities	Up to 5,000 mrem (5 rem) TEDE dose	The CHO must authorize exposure in excess of 1,000 mrem DDE dose. If authorized, you may receive up to 5,000 mrem TEDE dose for emergency activities.
Activities to protect valuable property where lower dose is not practical.	Up to 10,000 mrem (10 rem) TEDE dose	With CHO authorization, up to 10,000 mrem TEDE dose may be authorized for protection of valuable property where a lower dose is not practical. <u>Volunteers Only. Safety Briefing.</u>
Life-saving activities or protection of large populations where lower dose is not practical.	Up to 25,000 mrem (25 rem) TEDE dose.	With CHO authorization, volunteers may be authorized up to 25,000 mrem (25 rem) TEDE dose for the purpose of life saving actions or the protection of large populations where a lower dose is not practical. <u>Volunteers Only. Safety Briefing</u>

Extraordinary Life-saving activities or protection of large populations where lower dose is not practical	25,000-75,0000 mrem (25-75 rem) TEDE dose.	With CHO authorization, volunteers may be authorized up to 75,000 mrem (75 rem) TEDE dose for the purpose of extraordinary life-saving activities or protection of large populations where lower dose is not practical and ONLY if they have been made fully aware of the risks. <u>Volunteers Only. Safety Briefing</u>
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### 3.2.1 Emergency Operations

#### Administrative Exposure Limit

- Up to 1,000 mrem (1.00 rem) DDE as read on the PED (without CHO authorization)

Note: The PED reads and is calibrated to measure the DDE dose in units of mrem. Exposure is in units of R. In this instance exposure and dose are approximately equal. The DDE dose approximates exposure. However it does not measure a TEDE dose. The TEDE dose is calculated based upon a dose correction factor which is based on the isotopic mix of the release. The DDE 1000 mrem (1000 mR equivalent) administrative exposure limit is established at this level to ensure the Federal Dose limit of 5 rem TEDE is not exceeded, which is calculated by multiplying the DDE dose or exposure by the dose correction factor based upon the isotopic mix. If due to the application of a dose correction factor, an emergency worker exceeds the 1000 mrem DDE prior to receiving authorization, notify the CHO.

Emergency workers working under the guidance of this procedure are authorized to receive up to 1,000 mrem DDE as read on the PED or 1000 mR exposure (1.00 rem) without CHO authorization.

The EWEC Group will inform the CHO when emergency worker exposures approach the Administrative Exposure Limit of 1,000 mrem (1.00) DDE as read on their PEDs. The CHO will evaluate current emergency conditions and authorize DDE exposures in excess of 1,000 mrem (1.00 rem) as read on the PED or (1000 mR on any exposure reading instrumentation), if undertaking activities appropriate to the dose limits listed below. If possible, a dose correction factor should be identified and applied before allowing workers to exceed 1000 mrem as read on their PED to ensure they remain under the TEDE dose limits.

Emergency workers may receive up to 5,000 mrem (5.0 rem) TEDE for emergency activities. This will be based upon the calculated TEDE dose using a dose correction factor. This dose may be authorized to allow for emergency activities.

### Dose Limit for Emergency Activities

- 5,000 mrem (5.0 rem) TEDE

TEDE dose above 5,000 mrem (5.0 rem) requires further CHO authorization.

The CHO will ensure emergency workers are only authorized to receive additional exposure if they are undertaking activities in accordance with Federal Dose Limits as listed below

#### 3.2.2 Dose Limit for Protection of Valuable Property where a lower dose is not practical.

- Up to 10,000 mrem (10.00 rem) TEDE

Following authorization from CHO, emergency workers may subsequently receive up to 10,000 mrem (10.0 rem) TEDE. This will be based upon the calculated TEDE dose using a dose correction factor. This dose may be authorized to allow for the protection of valuable property where a lower dose is not practical. Emergency Workers authorized to receive up to 10,000 mrem (10.0 rem) will undertake operations on a volunteer basis only and receive a safety briefing.

TEDE dose above 10,000 mrem (10.0 rem) requires further CHO authorization.

#### 3.2.3 Dose Limit for Life Saving Activities or Protection of Large Populations where a lower dose is not practical.

- Up to 25,000 mrem (25.0 rem) TEDE

Following authorization from CHO, emergency workers may subsequently receive up to 25,000 mrem (25.0 rem) TEDE. This will be based upon the calculated TEDE dose using a dose correction factor. This dose may be authorized for life saving activities or protection of large populations where a lower dose is not practical. Emergency workers authorized to receive up to 25,000 mrem (25.0 rem) will undertake operations on a volunteer basis only. Each emergency worker shall receive a safety briefing.

TEDE dose above 25,000 mrem (25.0 rem) requires further CHO authorization.

3.2.4 Dose Limit for Extraordinary Life Saving Activities or Protection of Large Populations Where a Lower Dose is Not Practical.

- >25,000 mrem (>25 rem) TEDE. Up to 75,000 mrem (75 rem)

Following authorization from CHO and a safety briefing informing them of their risks, emergency workers may subsequently receive greater than 25,000 mrem (25.0 rem) TEDE, up to 75,000 mrem (75 rem). This will be based upon the calculated TEDE dose using a dose correction factor. The emergency workers must be made fully aware of the risks and be provided a safety briefing. Emergency Workers authorized to receive greater than 25,000 mrem or (25.0 rem) TEDE will undertake operations on a volunteer basis only. Authorization will only be given for operations necessary for extraordinary lifesaving activities and protection of large populations.

3.2.5 Volunteer Criteria

When emergency actions require an emergency worker to enter an area where exposures could exceed 5,000 mrem (5.0 rem), the following guidelines will be used:

- 3.2.5.1 Emergency personnel shall be volunteers and professional rescue personnel, if possible.
- 3.2.5.2 Volunteers shall be broadly familiar with the consequences of expected exposure, and shall be informed prior to the time of potential exposure.
- 3.2.5.3 Volunteers above the age of 45 are preferred and will not include women capable of reproduction.
- 3.2.5.4 Internal exposure shall be minimized, when appropriate, by the use of best available respiratory protection and thyroid blocking. Skin contamination shall be controlled by the use of available protective clothing.
- 3.2.5.5 Exposure under these conditions shall be limited to once in a lifetime.

## SECTION 3 - PLANNING BASIS

This plan is based on guidance from the federal planning document titled NUREG-0654/FEMA-REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants. NUREG-0654/FEMA-REP-1 was developed jointly by the U.S. Nuclear Regulatory Commission (NRC) and the Federal Emergency Management Agency (FEMA) after the Three Mile Island accident in 1979. The document incorporates the lessons learned from inquiries into the response actions taken during the accident. Other FEMA and state agencies' guidance and direction are also utilized.

### 1. EMERGENCY PLANNING ZONES

Technical experts and government agencies have worked to develop nuclear power plant emergency response plans for all of the nuclear power plants in the United States. As part of this planning, the areas around the plants are divided into planning zones. The Nuclear Regulatory Commission and Environmental Protection Agency have determined that a federally defined Emergency Planning Zone (EPZ) for the plume exposure pathway should be an area that is roughly a 10 mile circle around the nuclear power plant and an approximate 50 mile radius limit for the Ingestion Pathway Zone (IPZ). The (FEMA) has oversight responsibilities for San Luis Obispo County's emergency plans within this approximate 10 mile area. FEMA also has oversight responsibilities for the California Department of Public Health emergency plans within the 50 mile IPZ radius.

The State of California adopted San Luis Obispo County's recommendations to expand the Diablo Canyon Emergency Planning Zone so that it is much larger than the 10 mile radius EPZ defined by the federal government. The State of California's Emergency Management Agency has oversight responsibilities for the expanded EPZ beyond the 10 mile area.

#### 1.1 Federal Emergency Planning Zones

NRC/FEMA have established a 10 mile radius limit for the plume exposure pathway emergency planning zone and an approximate 50 mile radius limit for the ingestion pathway emergency planning zone (IPZ). Figure 3.1.1 illustrates the NRC/FEMA 10 mile EPZ boundary and Figure 3.1.2 illustrates the NRC defined 50 mile IPZ boundary in 22.5 –degree sectors.

#### 1.2 State Emergency Planning Zones

Based upon an extensive study<sup>2</sup>, the state designated two zones associated with the Diablo Canyon Power Plant, the **Emergency Planning Zone (EPZ)** and the **Public Education Zone (PEZ)**. Both are illustrated in Figure 3-2. The Public

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<sup>2</sup> A Study of Postulated Accidents of California Nuclear Power Plants, Prepared for the State of California, Office of Emergency Services by Science Applications, Inc., July, 1980

Education Zone continues across the county boundary to include an area of northern Santa Barbara County.

As described earlier, Figure 3.1.2 illustrates the 50 mile radius IPZ, which includes four total counties (San Luis Obispo, Santa Barbara, Monterey and Kern Counties). A summary description of the state study and process of selection of emergency planning zones is given in "Emergency Planning Zones for Serious Nuclear Power Plant Accidents," State of California Office of Emergency Services (*now Cal OES*), November, 1980.

### 1.3 County Planning

As noted above, the state planning zones form a basis for county planning. The expanded Emergency Planning Zone (EPZ) defined by the state is divided into 12 **Protective Action Zones**.

**PAZs 1 – 5 correspond to the approximate ten mile Federal emergency planning area. PAZs 6 – 12 are outside the ten mile area. Having 12 PAZs improve the managing of detailed planning and implementing the protective measures in areas smaller than the entire emergency planning zone.**

Surrounding the 12 PAZs are three zones known as **Public Education Zones (PEZs)**.

- Residents in these areas (zones 13 – 15) are outside but immediately adjacent to the Emergency Planning Zone. The **PEZ** was established to ensure general information about Diablo Canyon is provided to residents and businesses surrounding the PAZs.

PAZs and PEZs are described in Table 3.1 (sheet 1 and 2), and shown in Figure 3.2.

The Protective Action Zones may be arranged into four groups of generally increasing distance from the plant.

- PAZ 1                      2-mile radius
- PAZ 2                      6-mile radius
- PAZs 3-5                  Approximate 9- to 10-mile radius - Primary federal oversight areas of PAZs 1-5
  
- PAZs 6-12                Balance of State Emergency Planning Zones - State primary oversight
  
- **PEZs 13-15**            **Public Education Zone** - Area where public education materials are provided. Any emergency protective actions would be on an ad hoc basis.

In addition to the Federal, State, and County Emergency Planning Zones the County has pre-identified Agricultural Sectors for purposes of Ingestion Pathway Planning. (See Figure 3.3, Ingestion Pathway Zone Map.)

## 2. METEOROLOGY

Figure 3.4 indicates annual average wind direction and speed conditions both in graphic and tabular form.<sup>3</sup> (The wind rose represents the percentage distribution of wind direction on an annual timeframe.) Extensive meteorological and dispersion data may be found in "Volume II, Site Characteristics, Final Safety Analysis Report, Diablo Canyon Power Plant." In addition, discussion of certain "worst-case" meteorological conditions is included in the Cal OES planning guidance document.<sup>4</sup>

## 3. PROTECTIVE ACTIONS

A variety of countermeasures (Protective Actions) are available that can be used to reduce or eliminate the effects of radiation and contamination on the public that may result from a nuclear power plant accident. Countermeasures that could be used are described below.

For the general public, the two basic protective actions which may be taken immediately to prevent or reduce exposure to a gaseous plume are evacuation and shelter in place.

The actual radiation release or projected arrival of the radioactive plume will be key in the selection of the most effective protective response. In the event that this lead time is relatively short and the release is not of long duration, the most effective protection may be afforded by shelter in place with doors and windows tightly closed. Under such circumstances evacuation may not be effectively completed prior to the passage of the radioactive plume, resulting in less protection than that afforded by sheltering.

Table 3.4 is a simplified example of how a decision whether to shelter or evacuate might be made. It should be noted that this table is predicated on an accident projection and meteorological conditions so severe that dose projections indicate a need to take protective actions.

It should be noted that Table 3.4 does not reflect all of the criteria involved in making a protective action decision. Actual decision-making is based upon detailed calculations and consideration of other variables, including the predicted magnitude and composition of a potential release, meteorology and other offsite conditions.

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<sup>3</sup> 060104/DCPP wind rose map (PG&E)

<sup>4</sup> See "Emergency Planning Zone for Serious Nuclear Power Plant Accidents," State of California Office of Emergency Services.

The protective actions to mitigate the potential offsite consequences should be selected on the basis of the following key factors:

- The accident sequence at the plant
- The projected or actual release, both in terms of content and magnitude
- The projected or actual time of a release
- The projected travel paths of the plume
- The time of day of the accident
- The weather and other conditions that exist at the time of the accident

The types of protective actions to be considered for implementation include:

### **3.1 Evacuation**

Evacuation is a major countermeasure to prevent or reduce exposure and contamination of the general public. It is a complex operation involving several governmental jurisdictions. The effectiveness of an evacuation is considerably enhanced by detailed planning. Emergency workers should be evacuated when the general public is cleared from the area.

### **3.2 Sheltering from Radiation**

Sheltering means staying inside with all doors and windows closed, and ventilation systems turned off. Sheltering reduces exposure to radiation. It reduces the chances of inhaling or receiving body surface contamination from radioactive materials.

### **3.3 Administration of Iodine Blocking Pills**

The thyroid gland collects and concentrates iodine. Since large amounts of radioactive iodine are part of the inventory of radionuclides present in the nuclear reactor core, radioactive iodine could be released during a nuclear power plant accident. Iodine blocking liquid or pills are made of potassium iodide (KI). Taken prior to inhalation or ingestion of radioactive iodine, KI will saturate the thyroid gland with non-radioactive iodine, thus reducing the body's assimilation of the radioactive isotope.<sup>5</sup> This can greatly reduce the internal radiation dose to the thyroid. It will not protect against other radioisotope contamination or other organs or external radiation exposure. Iodine blocking pills or liquid may be used for the thyroid protection of emergency workers, general public and may also be recommended for institutionalized populations that cannot evacuate. The ingesting of potassium iodide will be authorized and recommended appropriately by the County Health Officer or a State Health Official after the evaluation of pertinent data.

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<sup>5</sup> NRC: SECY-98-264 - Proposed Amendments to 10 CFR 50.47; Granting of Petitions for Rulemaking (PRM 50-63 and 50-63a) Relating to a Reevaluation of Policy on the Use of Potassium Iodide (KI) after a Severe Accident at a Nuclear Power Plant.1998.

#### **4. PROTECTIVE ACTIONS FOR EMERGENCY WORKERS**

An Emergency Worker is any person engaged in operations required to mitigate the effects of an accident. For information about emergency worker operations and exposure limits see Section 2, 3.2.

Each county agency or other organizations involved in field emergency response in the affected area will have the means to monitor and minimize radiation exposure to its personnel. Equipment such as dosimeters will be provided to applicable emergency workers at their respective dispatch or work locations. In some circumstances or functions, area monitoring, rather than individual dosimetry, will be permitted for emergency workers. To limit the exposure to emergency workers, every effort will be made to coordinate activities in the affected areas so that unnecessary exposure is limited. The County Health Officer will be assisted by the Emergency Worker Exposure Control Group personnel in tracking exposure of emergency workers. The County Health Officer will be responsible for monitoring and controlling exposures.

The County Health Officer will recommend actions to protect county emergency workers including, but not limited to, ingesting potassium iodide (KI), relocating, using protective clothing and respirators. Joint Field Monitoring Teams may wear special respirators in contaminated areas to prevent inhalation of airborne radioactive materials, and protective clothing to prevent contamination of the skin.

##### **4.1 Respirators (For Emergency Workers)**

Respirators prevent the inhalation of airborne radioactive materials. Respirators may be most applicable to emergency workers conducting field monitoring operations in the contaminated area and will be addressed in their Standard Operating Procedures. Respirators offer no protection from external exposure to gamma radiation. Respirators will only be recommended for those trained and fitted in their use.

Protective clothing and respirators should be used in areas of high contamination or airborne activity, providing TEDE is maintained by ALARA. Respirators will only be directed for those trained and fitted in their use.

##### **4.2 Protective Clothing (For Emergency Workers)**

Protective clothing is worn to prevent contamination of the skin. Its principal value is to reduce or eliminate the need for skin decontaminations, but it offers no protection from gamma radiation exposure. Emergency Workers have Standard Operating Procedures and guidelines to follow in addressing the prevention of contamination. Most emergency workers will not be need to use nor be required to wear protective clothing.

**5. AGRICULTURAL PREVENTATIVE AND HOLD ORDERS FOR FOOD COMMODITIES, LIVESTOCK, ETC.**

**5.1 AGRICULTURAL PREVENTATIVE MEASURES MAY INCLUDE:**

- 5.1.1 Shelter all livestock (including dairy animals, cows, horses, goats, sheep and pigs) and place on stored feed and water.
- 5.1.2 Shelter all poultry and place on stored feed and water.
- 5.1.3 Stop pumping from outdoor/ uncovered surface water sources
- 5.1.4 Stop all harvest activities including apiaries and backyard gardens
- 5.1.5 Stop field preparations and tillage

**5.2 AGRICULTURAL HOLD ORDERS MAY INCLUDE:**

This is the process of placing a commodity on hold. Agricultural Sectors consist of pre-identified geographic areas where radiological contamination could occur and include buffer areas (See Figure 3.3).

**5.2.1 Agricultural Hold Measures:**

- Hold dairy products
- Hold harvested crops
- Hold livestock and poultry
- Hold other consumables
- Cease movement of food within an area

**5.3 Support Actions May Include:**

**5.3.1 Importation of Clean Food and Water**

Radiation and contamination levels may be low enough to meet occupancy standards but not low enough for contaminated food and water in the area to meet ingestion standards. Such food and water

will be tested in a laboratory to determine if it meets ingestion standards. Food and water will be imported until local supplies are determined to be free from contamination.

### **5.3.2 Decontamination**

Decontamination is the reduction or removal of radioactive material from a structure, area, vehicle, food item, object, or person. Decontamination may be accomplished by treating the surface to remove or decrease the contamination.

### **5.3.3 Allowing for Radioactive Decay**

An effective countermeasure for some types of radiation is obtained by allowing the time needed for radioactive particles to decay and by keeping the general population from radioactive items, areas, food and water. The normal use of items and areas can be resumed when radiation and/or contamination levels meet acceptable standards.

## **6. EVACUATION ROUTES, CONCEPTS, AND ASSUMPTIONS**

### **6.1 Routes**

Local evacuation routes through individual communities and major recreation centers are shown in the November 2012 Diablo Canyon Power Plant Development of Evacuation Times Estimates, KLD Engineering, P.C., Figure 3.5 and Figures 3.6.1-13 show those evacuation routes. Essentially all state highways and U.S. 101 serve as major evacuation routes. Key local evacuation routes connect to the through routes. Figures 3.6.8-12 show local evacuation routes for state and local parks.

The California Highway Patrol (CHP) will coordinate control of evacuation traffic throughout the EPZ to provide optimum usage of available capacity. The CHP has developed an extensive Evacuation Traffic Management Plan.

Figure 3.7 shows locations established to receive evacuees toward the south, a Reception Center at the Santa Maria Fairpark, and toward the north a Reception and Congregate Care center at Camp Roberts. These centers are accessible from the evacuation routes and are more than five miles outside the Emergency Planning Zone (EPZ). Figure 3.8 shows locations established as public school relocation centers. These facilities are accessible from the evacuation routes and are located outside the EPZ. School children are relocated early in the emergency, allowing parents and children to be reunited prior to going to one of the Evacuee Monitoring, Decontamination, Reception and Congregate Care Centers.

## 6.2 Evacuation Concepts and Assumptions

Certain assumptions and operational concepts surround traffic management during any evacuation connected with the Diablo Canyon Power Plant. The following is a discussion of these ideas.

Wind Direction: Current and predicted wind conditions are factors involved in the evacuation of specific Protective Action Zones (PAZs). Since more than one PAZ may be affected, the CHP has the zones grouped into three basic sectors; North, San Luis Obispo and South sectors.

Wind velocity, specifically the time necessary for a release plume to travel through or over a PAZ, will also have a critical bearing upon the decision to evacuate. It will determine the lead time required to obtain and place a sufficient number of officers in the field to assist with traffic control during the evacuation.

CHP Staffing Requirements: Officers will be assembled and dispatched according to Standard Operating Procedures. The number of officers estimated to staff each PAZ during an evacuation has been determined. During an emergency, when it becomes apparent that an evacuation may be necessary, CHP officers will be assembled and briefed at safe locations which lends to expeditious deployment. They will be issued emergency worker exposure control equipment and procedures, and briefed on their use. If an evacuation becomes imminent, CHP officers will be dispatched to direct traffic at their assigned posts.

Due to the numbers of officers needed to manage the evacuation traffic, CHP personnel from outside San Luis Obispo, Santa Barbara and Monterey Counties will be required.

Traffic Restrictions - U.S. 101: Through traffic on U.S. 101 can be diverted at several points north and south of San Luis Obispo County in anticipation of an evacuation. When the County Command Group determines the evacuation is necessary, traffic can be diverted as follows:

- South of San Luis Obispo: Northbound traffic can be diverted at State Hwy. 126 in Ventura County; Hwy. 246 and Hwy. 154 in Santa Barbara County; and at Hwy. 166 in San Luis Obispo County eastbound and diverted to the Interstate 5 freeway.
- Likewise, traffic westbound on Hwy. 246 and Hwy. 154 can be restricted to residents of northern Santa Barbara and southern San Luis Obispo Counties.
- North of San Luis Obispo: Southbound traffic can be diverted at Hwy. 152 in Santa Clara County, Hwy. 198 in Monterey County and Hwy. 46 in San Luis Obispo County eastbound to the Interstate 5 freeway.

- Likewise, traffic westbound on Hwy. 46, Hwy. 41 and Hwy. 58 can be restricted to residents of San Luis Obispo County.
- Traffic southbound on Hwy. 1 can be diverted at Carmel Valley Road in Monterey County.

Media Coordination: CHP offices in the counties to the north and south of San Luis Obispo County will coordinate and implement the traffic diversion methods. CHP Offices in the Los Angeles and San Francisco metropolitan areas may also be involved.

Evacuation Traffic Management: Once an evacuation order is given, two way traffic flow may be able to continue. Emergency vehicles and returning buses used in transporting evacuees must have ingress to the area. People may be allowed to return home to retrieve family members, personal property, pets and medications. For this reason, heavy traffic is expected in and out of the PAZs designated for evacuation. This movement will likely occur during the first one to three hours of the evacuation. Outbound traffic flows should become heaviest as additional PAZs evacuate. Traffic control points will be managed with these anticipated traffic flows in mind.

## **7. EVACUATION TIMES ESTIMATES**

The estimated evacuation time for a PAZ is used to determine, under a specific projected accident condition, whether evacuation or sheltering provides the best protective action to take. A detailed analysis of evacuation has been conducted and is described in November 2012 Diablo Canyon Power Plant Development of Evacuation Time Estimates.<sup>6</sup> Based on these studies, evacuation time estimates for various combinations of protective action zones have been developed. The evacuation time for institutions is a function of the particular institution's population and the availability of local and outside vehicles suitable for evacuation.

The Evacuation Time Estimates is fully incorporated in this plan by reference for brevity purposes and to avoid duplication. The ETE may also be modified or revised in different time periods from this plan. See the distribution page at the beginning of this plan for locations of the full Evacuation Time Estimates.

## **8. EMERGENCY CLASSIFICATION LEVEL (ECL)**

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<sup>6</sup> Diablo Canyon Power Plant Development of Evacuation Time Estimates, KLD Engineering, P.C. November 2012.

Federal regulations and regulatory guidelines<sup>7</sup> (NRC/FEMA) classify radiological emergency conditions into four categories. These four categories which cover the entire spectrum of postulated accidents are:

- **UNUSUAL EVENT**
- **ALERT**
- **SITE AREA EMERGENCY**
- **GENERAL EMERGENCY**

Certain planned actions will be taken by the utility and/or offsite authorities in response to each of the four indicated emergency classification levels. DCP/PG&E and the County of San Luis Obispo have agreed to take actions at each defined emergency level that equal or exceed the minimum response designated in federal guidance. These response actions, by the county and DCP/PG&E, are described in this section and shown in Table 3.7. However, the Command Group's Protection Action Decisions are not limited to the response actions in Table 3.7. Actual decision-making is based upon detailed calculations, deliberations and consideration of other variables, including the predicted magnitude and composition of a potential release, meteorology and other offsite conditions. An event need not begin at an Unusual Event classification and progress through higher ECLs. An event may begin and end without escalating to a higher ECL.

## **8.1 UNUSUAL EVENT**

**UNUSUAL EVENTS** are events that are in process or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.

These events do not constitute emergency conditions in themselves, but could escalate to more severe conditions if appropriate action is not taken.

Upon notification of an **UNUSUAL EVENT** at the Diablo Canyon Power Plant, required actions will include notification of the County of San Luis Obispo, Cal OES and dissemination of information to designated elected officials and county governmental agencies.

The primary purpose of offsite notification at an **UNUSUAL EVENT** is to apprise county officials of abnormal conditions at the facility which may create significant public interest. The frequency of **UNUSUAL EVENTS** may be several times a year or more. Offsite notification also ensures unscheduled testing of the offsite communication links. See Table 3.7 sheet 1.

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<sup>7</sup> Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, U.S. Nuclear Regulatory Commission, Federal Emergency Management Agency, NUREG 0654/FEMA-REP-1, Revision 1, October 2011.

## 8.2 ALERT

The **ALERT** classification is characterized by events that are in process or have occurred that involve actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of hostile action. Any releases are expected to be limited to small fractions of the U. S. EPA Protective Action Guideline exposure levels.<sup>11</sup>

The ALERT classification constitutes the lowest level where emergency response assistance to the plant site (such as medical, fire, or law enforcement) may be anticipated.<sup>8</sup>

Limited releases or radioactive material to the environment may occur, possibly resulting in a dose of  $\leq 1$  mREM to the whole body at the site boundary (approximately 0.5 mile from the plant) under average meteorological conditions.

Upon notification of an ALERT at the Diablo Canyon Power Plant, required actions will include: activation of the San Luis Obispo County Emergency Operations Center (EOC), placing key emergency response resources and personnel on standby, provision of confirmatory monitoring, notification of all involved governmental officials designated in this Plan, and dissemination of information to the public.

County and State Parks may be closed at the ALERT classification according to the responsible jurisdiction's Standard Operating Procedures (SOP). The Command Group may also take additional actions.

The County Office of Education may confirm the dispatching of buses by San Luis Coastal Unified School District to Bellevue-Santa Fe Charter School. San Luis Coastal School District may dispatch buses to standby at appropriate schools to facilitate possible relocation. Precautionary relocation of some schools may occur at this stage following consultation by the District Superintendent of Schools with the County Superintendent of Schools or designee located at the EOC. The County Superintendent of Schools will maintain communication with each school district's superintendent and provide briefings to the Command Group regarding each school district's actions.

The purpose of the ALERT classification is to ensure that plant and offsite emergency personnel are readily available to respond if the situation becomes more serious. Secondary purposes are to provide offsite authorities with current status information. See Table 3.7 sheet 2.

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<sup>11</sup> U. S. EPA 400-R-92-001 (May 92) Manual of Protective Action Guides and Protective Action s for Nuclear Incidents

<sup>8</sup> Diablo Canyon Power Plant Emergency Plan. September, 2001 Revision 4 Change 5 Section 4, 4.1.2.

### 8.3 SITE AREA EMERGENCY

A **SITE AREA EMERGENCY** is characterized by events in process or that have occurred that involve actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of hostile action. Any releases expected to be limited to small fractions of the U.S. EPA Protective Action Guideline exposure levels.

Although emergency actions for public protection may not be necessary, offsite emergency response organizations should be mobilized and ready to implement protective measures. Most events within the **SITE AREA EMERGENCY** classification constitute actual or probable releases of radioactive material to the environment. This includes any releases not expected to exceed U.S. EPA Protective Action Guides except near the site boundary. In general, offsite doses (should they occur) would be less than 1 REM whole body at the site area boundary (approximately 0.5 mile radius). Protective actions may be advised at the **SITE AREA EMERGENCY** classification. Closure of parks and beaches may also be advised.

Upon notification of a **SITE AREA EMERGENCY** at the Diablo Canyon Power Plant, the San Luis Obispo County EOC will be activated. Other actions may include mobilization of emergency response personnel, public warning, assessment and/or implementation of precautionary actions, monitoring, and continued assessment.

The purpose of **SITE AREA EMERGENCY** notification is to assure that response centers are activated and staffed; to assure that monitoring teams are dispatched; to assure availability of personnel to support protective measures should they become necessary; and to disseminate information. See Table 3.7 sheet 3.

### 8.4 GENERAL EMERGENCY

A **GENERAL EMERGENCY** classification is characterized by events that are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity or hostile action that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guidelines exposure levels offsite for more than the immediate site area.

Most all events within this classification constitute actual or imminent releases of radioactive materials to the environment, one notable exception is an ECL for security issues. Projected offsite doses could be 1.0 REM or greater to the whole body and 5.0 REM or greater to the thyroid. Protective actions, possibly evacuation, will likely be necessary.

Upon notification of a GENERAL EMERGENCY at the Diablo Canyon Power Plant, actions will include activation of the San Luis Obispo County EOC; mobilization of emergency response personnel; public notification, information, and instructions; implementation of protective actions as appropriate; continued monitoring, and continued assessment. Depending on the situation, the most likely protective action to be taken would be an evacuation of PAZs 1 and 2 (six miles around plant) surrounding the plant and consideration of evacuation and/or sheltering in areas further downwind. During a Security Event, any protective actions decisions made by the County Command Group will be carefully considered and coordinated with the event.

The purpose of the GENERAL EMERGENCY notification is to initiate predetermined protective actions for the public, to provide for continuous assessment of data supplied by DCPD, to initiate any additional measures, and to disseminate information to the public. See Table 3.7 sheet 4.

Examples of nuclear power plant emergency initiating conditions which will result in the declaration of an emergency classification can be found in NUREG 0654/FEMA-REP-1, Appendix 1.

## **9. TIME FACTORS ASSOCIATED WITH RELEASE**

The range of predicted times between the onset of accident conditions and the start of a major release is on the order of one-half to several hours. The subsequent time period over which radioactive material may be expected to be released is on the order of one-half hour (short-term release) to a few days (continuous release). Table 3.7 summarizes the guidance on time of the release.

## **10. EARTHQUAKE RESPONSE**

This section addresses emergency response activities necessary to concurrently implement the San Luis Obispo County/Cities Nuclear Power Plant Emergency Response Plan and the San Luis Obispo County Earthquake Emergency Response Plan (Earthquake Plan).

### **10.1 Activation of Plans**

The occurrence of a major earthquake will require the implementation of local and state earthquake emergency response plans if significant damage has occurred. In addition, the U.S. Nuclear Regulatory Commission has mandated through regulatory guidelines<sup>9</sup> the automatic activation of radiologic emergency

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<sup>9</sup> NUREG-0654/FEMA-REP-1, Revision 1, Appendix 1 – *Emergency Action Level Guides for Nuclear Power Plants, 1980*, as modified by *Emergency Planning and Preparedness for Nuclear Power Reactors*, NRC Regulatory Guide 1.101, Revision 3, August 1992.

plans for seismic shock exceeding specified levels as registered at the site of a nuclear power plant.

The Emergency Classification Level (ECL) system includes the declaration of an emergency based on any earthquake felt in-plant or detected by the Plant's Seismic Monitoring System. Following the ECL descriptions in Section 3.6 above, an earthquake monitored at the Plant would be classified based on gravitational (g) acceleration:

< 0.01 g (or felt within protected area)	<b>UNUSUAL EVENT</b>
0.01 ≤ to < 0.20 g	<b>ALERT</b>
0.20 ≤ to ≤ 0.40 g	<b>SITE AREA EMERGENCY</b>
Plant equipment damaged with potential to cause a significant release	<b>GENERAL EMERGENCY</b>

\* (NOTE: The Diablo Canyon Power Plant is manually tripped at 0.40 g if it hasn't been automatically tripped by instrumentation at 0.35 g.)

## 10.2 Scope of Earthquake Plans

The San Luis Obispo County Earthquake Emergency Response Plan provides guidance for coordinating efforts throughout the county as a result of damaging earthquake. Part of the effort includes guidelines to check on damages throughout the area, including damage at Diablo Canyon.

As with other emergency management efforts, response priorities after an earthquake are determined based on what areas need immediate assistance the most, or which situation requires immediate attention. As such, should an earthquake cause damages to Diablo Canyon which require an immediate response, emergency resources can be used to concentrate on needed response efforts as outlined in both this plan and the earthquake plan.

The County's Earthquake Plan provides an overview of the range of potential damage caused by earthquake and it provides for immediate response to a major damaging earthquake by local county and city agencies

Activation of the earthquake plan provides for immediate implementation of situation reporting and damage assessment efforts by local, state, volunteer and private organizations throughout the county. A more detailed explanation of the organizational structure, command authority, responsibilities, functions and

interactions required to mitigate the effects of an earthquake-caused emergency is located in the County Earthquake Emergency Response Plan.

## **11. TSUNAMI RESPONSE**

This section addresses emergency response activities necessary to concurrently implement the San Luis Obispo County/Cities Nuclear Power Plant Emergency Response Plan and the San Luis Obispo County Tsunami Emergency Response Plan.

The ECL system includes the declaration of an emergency based on emergency response and coordination related to receipt of a tsunami watch, advisory, or warning or the occurrence of an actual tsunami along the San Luis Obispo County coastline.

Tsunamis are a series of ocean waves generated by vertical movement of the sea floor. The movement is typically caused by earthquake related faulting, but can also result from submarine landslides or volcanic eruptions. San Luis Obispo County could be affected by a tsunami caused by fault related ground displacement on a local, near or offshore fault (such as the Hosgri), or on a more distant fault. Common sources of tsunamis affecting California in the past have been earthquakes on faults off the coast of Chile and the North American coast (up to Alaska).

The tsunami hazard for the San Luis Obispo County coastal areas is greatest for those communities or portions of communities located below the estimated elevations for the 100- to 500-year events, that is, below elevation 24 and 39 feet above mean sea level, respectively. In general, much of the coastline of San Luis Obispo County is protected from tsunami hazards by wide beaches, coastal dunes, or sea cliffs that provide protection to coastal developments.

Run-up and inundation modeling and mapping, done by the University of Southern California (USC) under contract to Cal OES in 2005 and 2006, indicates a general potential maximum inundation elevation of 40 feet above mean sea level. However, undersea geology or bathymetry and local natural or manmade structures may alter this estimate and the county has decided to utilize an inundation of 50 feet above mean sea level for emergency planning purposes.

DCPP is designed for storm surge waves of 36 feet and tsunami waves of 20 feet (source: Diablo Canyon Independent Safety Committee's (DCISC) 15<sup>th</sup> Annual Report, 2004-2005). In 1981, DCPP experienced a 31-foot storm surge.

Diablo Canyon does include tsunami response planning as part of its emergency planning activities, as does the County. DCPP is in direct contact not only with the County as it relates to tsunami warnings, but also has direct communication with the California Emergency Management Agency's State Warning Center. DCPP's procedures may include a Notification of an Unusual Event from either a tsunami warning or observation of low or high waters levels at the intake structure being indicative of a tsunami.

Activation of the tsunami plan provides for immediate implementation of situation reporting, evacuation and/or damage assessment efforts by local, state, volunteer and private organizations along the coastline. A more detailed explanation of the organizational structure, command authority, responsibilities, functions and interactions required to mitigate the effects of a tsunami is located in the County Tsunami Plan.

## SECTION 4 – EMERGENCY MANAGEMENT

### 1. COUNTY EMERGENCY ORGANIZATION

By State law, all public agency employees in California are “disaster service workers.” San Luis Obispo County Codes states “All officers and employees of this county .... shall constitute the emergency organization of this county” (County Code 2.80.110)

The County Emergency Organization responding to a radiological emergency will be similar to the emergency organization designed to respond to other emergencies under the San Luis Obispo County Emergency Operations Plan. (See Figure 4.1.1)

The individual in charge of the County during an emergency is the Emergency Services Director, who is the County Administrator.

*Should the Director of Emergency Services (commonly referred to as Emergency Services Director), who is the County Administrative Officer be unavailable or unable to serve, the following succession order shall be followed, except under the conditions identified in the following paragraph, to serve in the role of Emergency Services Director:*

1. Assistant County Administrative Officer
2. County OES Principal Administrative Analyst
3. County Sheriff
4. Health Agency Director
5. County Health Officer
6. County General Services Agency Director
7. On Duty Sheriff’s Watch Commander until relieved by a higher ranking Sheriff’s Department employee.

*Should a vacancy occur in one of the above positions other than County Administrator or Assistant County Administrative Officer, the County Administrator may remove that position from the line of succession until such time as the person filling that position has sufficient knowledge of the County, including the County’s emergency organization and related procedures, to perform the duties of alternate Emergency Services Director. That determination shall be made by the County Administrator or Assistant County Administrative Officer with possible input from other members of the County’s emergency organization. The Emergency Services Director may also remove any alternate ESD from the line of succession should conditions develop which would make it in the best interest of the emergency organization of the county.*

In implementing the Plan, the Emergency Services Director is the ranking individual in the Command Group, which is described in more detail below. The Emergency Services Director is responsible for assuring continuity of resources and the county’s capability of

continuous (24-hour) operations for a protracted period. County departments participating actively in responding to an emergency are classified into five groups, according to function:

- Command
- Operations
- Planning and Intelligence
- Logistics
- Finance and Administration

### **1.1 Command**

The Command Group includes those responsible for directing the emergency response and will function as a Unified Command. Within this group are those individuals with authority to order actions in accordance with the county emergency ordinance, to proclaim a **LOCAL EMERGENCY**, to request declaration of a **STATE OF EMERGENCY**, and to enact emergency proclamations. The County Board of Supervisors acts in an advisory/approval role to the Command Group.

### **1.2 Operations Section**

The Operations Section includes those functions that coordinate and provide support to field response and direct emergency response actions. As an example, the Law Enforcement Branch and Fire/Rescue Branch help coordinate field operations, while a primary responsibility of the Public Works and Utilities Branch is to mobilize and allocate transit resources as necessary and to support traffic flow by setting traffic control barricades and/or emergency road repairs. In addition to the Operations Section members in these functions, some additional participating agency representatives include Schools Districts, the American Red Cross, State Parks and Port San Luis. See Figure 4.1.2 for Operations Section Organization Chart.

### **1.3 Planning and Intelligence Section**

- 1.3.1 Those who provide specialized technical information and advice including County Counsel and personnel from the County Planning Department and County Agricultural Department responsible for providing Geographical Information System (GIS) information.
- 1.3.2 Various County personnel responsible for collecting and disseminating information (Documentation Unit).
- 1.3.3 Situation Reporting and Advanced Planning from Unified Dose Assessment Center (UDAC).

1.3.3.1 The Unified Dose Assessment Center (UDAC) is the area where radiological data is collected and assessed by various agency representatives who make joint recommendations to the County Health Officer, Emergency Services Director and Command Group. County members of the UDAC are from Environmental Health, the Air Pollution Control District and the County Department of Agriculture. Additional UDAC members are from the *California Department of Public Health (CDPH)* and Cal OES, the U.S. Department of Energy (DOE), U.S. Environmental Protection Agency (EPA), etc., and technical representatives from DCP. The county workers in the UDAC report to the Director of Environmental Health who is designated as the UDAC Coordinator.

1.3.3.2 The duties as assigned to county staff who are UDAC members are described in the Environmental Health Division SOPs (III.06) and HP SOPs.

#### **1.4 Logistics Section**

The Logistics Section enables the County Emergency Organization to function effectively. County General Services (facilities, purchasing) acts as the Logistics Section Chief. Additional technical communication support staff are personnel with specialized areas of responsibility such as the County Information Technology Department (communications and computers), and the Communications Unit.

#### **1.5 Finance and Administration Section**

The Finance and Administration section is responsible for financial and cost aspects of the incident that are not assigned or included with other incident functions. Staff members may include Auditor-Controller or Assistant Auditor-Controller or Principal Administrative Analyst. Additional duties would be to track personnel time reports, compensation and claims. This section may function from a different location other than the EOC.

### **2. INTERAGENCY ORGANIZATION**

Interagency lines of communication between the county and cities, state departments, federal departments and DCP/PG&E are indicated in Figure 4.2. This figure shows fundamental lines of communication and coordination. In practice, there would be many additional linkages, especially at the operational level (such as the city police departments and Sheriff's Department working with the California Highway Patrol for traffic control).

As illustrated, the Command Group, with assistance from Plans and Operations Sections, will be the coordinating unit for dealing with outside agencies. Some of the key lines of coordination are:

- with the City Managers (or emergency services personnel) of the incorporated cities to coordinate county wide response actions.
- with Santa Barbara County and the City of Santa Maria. The Santa Barbara County and/or Santa Maria City may send a representative to the EOC to serve as an Agency Representative.
- with DCPD in the exchange of information, implementation of protective measures and public information activities.
- with the California Office of Emergency Services in coordinating state and federal level assistance to the county (such as California Department of Public Health, the U.S. Department of Homeland Security (FEMA), Federal Emergency Management Agency, Department of Energy, etc.). Direct coordination with key local offices of state agencies will be assured through representation of the California Highway Patrol (CHP), California Department of Transportation (Caltrans), California Men's Colony (CMC), and California State Parks in the County EOC.

The initial point of contact between DCPD and the county will be direct communications to the Sheriff's Watch Commander from the plant site. If an **ALERT** or higher emergency level is declared, DCPD will activate the Technical Support Center (TSC) and take steps to activate the Emergency Operations Facility (EOF). Prior to EOF activation emergency notifications/messages to the county will come either from the Control Room or the TSC to the Sheriff's Department Watch Commander. The EOF will have an initial contingent of three assigned persons from DCPD's staff:

- Advisor to the County Emergency Organization
- Public Information Officer
- Technical Advisor assigned to the Joint Information Center

When fully staffed, the EOF will include the Emergency Director who has overall responsibility for the direct management of DCPD's and PG&E's response to the emergency. Other DCPD technical staff will be assigned to coordinate with the county.

Adjacent to the Sheriff's Department (located next to the EOC) is Camp San Luis Obispo, a California National Guard Facility. If outside resources provided by the State or Federal government agencies are brought in, the National Guard will activate the facility as a logistical support base to provide office space and accommodations.

Provisions have been made for the federal response to the local area. Office space is provided for FEMA in the EOF. Telephones to meet the NUREG-0654 requirements are

provided. The nearest airport is the San Luis Obispo Airport which is approximately 8 miles from the EOC/EOF. Alternate airports are in Santa Maria to the south and Paso Robles to the north.

### **3. LINES OF AUTHORITY**

Authority documents are indicated in Section 1.4. This section highlights important legal considerations involved in the implementation of the Plan.

#### **3.1 Direction of County Emergency Response**

The direction of emergency response rests with the County Emergency Services Director, who has the authority to make use of the broad powers spelled out in the county code. The County Administrative Officer (CAO) is the Emergency Services Director (ESD). A line of succession approved by the County Board of Supervisors indicates who will assume that role if the CAO is unavailable (See Section 4.1).

#### **3.2 Proclamation of Local Emergency**

The Emergency Services Director is empowered to proclaim a Local Emergency if the Board of Supervisors is not in session. (The Board of Supervisors must ratify the proclamation within seven days.) If in session, the Board of Supervisors must pass the proclamation of emergency.

#### **3.3 Proclamation of State of Emergency**

The Chairperson of the Board of Supervisors is empowered to request that the Governor declare a "State of Emergency" when the locally available resources are inadequate to cope with the emergency. (If the Chairperson is unavailable, the ESD is empowered to make the request.)

If a STATE OF EMERGENCY has been declared, all state agencies operate under the direction of the Governor. This effectively centralizes all emergency operations of State agencies.

### **4. COMMAND AND CONTROL ASSIGNMENTS**

The following tasks of overall command and control of the County emergency response are assigned to the Command Group:

- 4.1 Operate the County Emergency Operations Center.

- 4.2 Direct the overall emergency response of the County and the cities within the EPZ.
- 4.3 Exercise powers as necessary to respond to the emergency.
- 4.4 Serve as point of contact for state and federal agency leaders.
- 4.5 Serve as point of contact for DCP/PG&E.
- 4.6 Evaluate the emergency situation.
- 4.7 Supervise the alert, notification and dissemination of emergency instructions to the public.
- 4.8 Direct the implementation of protective actions.
- 4.9 Ensure that adequate administrative, technical and material resources are available or are requested including the following:
  - 4.9.1 Local resources:
    - 4.9.1.1 Through the direction of county departments and EOC Logistics.
    - 4.9.1.2 Through mutual aid and cooperation with the cities and other local jurisdictions.
    - 4.9.1.3 Through the use of private resources and volunteers.
  - 4.9.2 State and mutual aid, including California National Guard.
  - 4.9.3 Federal aid or assistance, if needed.
- 4.10 Provide direction to Section Chfs to ensure response is carried out.
- 4.11 Set priorities if multiple emergencies exist.

## SECTION 5 – CONCEPT OF OPERATIONS

The following is an overview of the emergency operations as outlined in this plan. Specific steps to "implement" the operations of various Departments, Agencies, and Jurisdictions are located in PART THREE of the Plan, which is made up of initial Standard Operating Procedures (SOPs).

### 1. INITIAL EMERGENCY NOTIFICATION (PLAN ACTIVATION CRITERIA)

The Plan will be activated by the Sheriff's Department Watch Commander after receiving and verifying the notification. The Watch Commander will have and may use an Emergency Notification Form to assist in receiving emergency information details. The county can be notified that there is a problem at Diablo Canyon Power Plant (DCPP) by two different methods

The first method is the plant's Control Room notifying the County Sheriff's Department Watch Commander's Desk (which is staffed 24 hours a day) via the dedicated telephone line. Alternate / backup communications include a two-way radio system and commercial telephones.

The second method is the California Emergency Management Agency, which maintains 24-hour staffing at the State Warning Center in Sacramento. Upon receipt of security related information or indications from the independent near site/offsite radiation monitoring system and remote alarm indicators,<sup>10</sup> Cal OES would immediately contact the county, the utility, and the Nuclear Regulatory Commission (NRC). They will resolve with the county, the utility, and the NRC the appropriate initial response to be taken by the county. Unless otherwise indicated, this condition shall be responded to as if it were a Notification of Unusual Event. This will ensure that the county will activate the appropriate response personnel to respond to this situation.

Within 15 minutes of the declaration of an Emergency Classification Level (ECL), DCPP will transmit to the county all of the information required for initial assessment. The response will be in accordance with Emergency Classification Level accident classification system, to ensure there is no misunderstanding as to the severity of the situation. Table 3.7 summarizes the actions taken by both the county and DCPP/PG&E at each of the Emergency Classification Levels. Detailed response actions are contained in the Standard Operating Procedures (SOPs) for each emergency position/function.

Implementation of protective actions will be coordinated by local jurisdictions and County EOC as directed by the County Emergency Services Director.

#### 1.1 Security Events at DCPP

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<sup>10</sup> These systems are installed as specified by California Health and Safety Code, "Radiation Monitoring Devices for Nuclear Power Plants" (Division 20, Chapter 7.1, Sections 25620-25624)

Notification of a security event or hostile action at DCPD will be initiated by a 9-1-1 call for assistance to the Sheriff's Dispatch Center or Sheriff Watch Commander. Onsite assistance will be provided as requested. Activation of emergency response facilities will continue to be based on the declaration of an Emergency Classification Level of Alert or higher.

## 2. NOTIFICATION AND MOBILIZATION

A summary of response actions following an Emergency Classification notification regarding Diablo Canyon Power Plant is described in Part One, Section 3 and in Table 3-9. Notification procedures are described in detail at the individual department level in Part Three, Standard Operating Procedures (SOPs).

At the time of initial contact with the county, DCPD is required to furnish relevant information concerning the emergency situation. The initial assessment is to include, as appropriate:

- information on plant status and projected status,
- assistance requested to DCPD via "911"
- radiological release status,
- meteorological conditions,
- Protective Action Recommendations, if any

The Standard Operating Procedures and county/utility emergency classification system<sup>11</sup> will help determine which personnel are notified and mobilized. Emergency response personnel will be notified to stand by and/or mobilize to implement the provisions of this Plan consistent with the Emergency Classification Level categories. For example, at a Notification of Unusual Event, County Office of Emergency Services personnel will be notified to stand by and monitor conditions.

In the event that conditions at the plant degrade to more serious action levels, additional emergency response personnel will be notified (per SOP) to standby or be dispatched to initiate preparatory functions. For example, at an ALERT level or higher, the emergency personnel will take immediate steps to activate the Emergency Operations Center (including the Unified Dose Assessment Center) and the Joint Information Center.

Primary notification and confirmation is to be by telephone in a "cascade" fashion. Some workers may also be notified by radios, pagers, or tone alert radios and/or have contact numbers where they are reachable on a 24-hour basis. A radio notification may provide a backup to the telephone system.<sup>12</sup> Some county departments, schools, medical and other institutions can be provided information by means of a monitor radio with tone alert. In order to minimize the time required to mobilize key personnel, call lists are prioritized.

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<sup>11</sup> See Table 3.7; "Summary of Actions at the Four Emergency Classification Levels"

<sup>12</sup> Exception to this method of operation is with fire and law services, which use two-way radios as a primary notification means, with telephone backup.

### **3. INFORMATION ACQUISITION AND SITUATION REPORTING**

#### **3.1 Plant Conditions and Radiological Information**

At ALERT or greater, the county continuously assesses the offsite consequences caused by the possible release of an airborne radioactive plume and recommends the implementation of measures to protect the general public. The county acquires information from both DCPP (concerning onsite events and offsite consequences) and the Joint Field Monitoring Teams (FMT).

#### **3.2 Offsite Situations**

In any situation where there is a potential for an offsite release (Emergency Classification Level of ALERT or greater), the county will take steps to independently confirm the plant's assessment. The initial response will be to dispatch Joint Field Monitoring Teams to predetermined locations depending on meteorological conditions or place on standby as the situation requires.

The county may also provide a representative from Environmental Health to work in the DCPP Offsite Emergency Lab (OEL), which provides more sophisticated instrumentation than hand-held devices. The field monitoring teams will attempt to verify that a release has not occurred or will measure the magnitude and direction of the release. This effort will be expanded if measurements or projections indicate the possibility of a release of significance in offsite areas. Augmentation for the Field Monitoring Teams will primarily come from the U.S. Department of Energy, which coordinates federal radiological assistance. Arrival of outside resources will be in a three-to-eight-hour time frame. Additional state and federal assistance will respond, as resource requests and the situation requires.

The offsite radiological assessment capabilities during the plume phase will be centralized through the establishment of a Unified Dose Assessment Center (UDAC) in the co-located County EOC and the DCPP/PG&E Emergency Operations Facility (EOF). The UDAC will bring the county, utility, state and federal dose assessment participants who are involved in offsite dose assessment together with accident data. This data will form the basis for protective action recommendations which will be provided to, discussed among and decided upon by the County Command Group. The UDAC Coordinator, the County Environmental Health Director or designee, will be responsible for presenting the findings and recommendations of the UDAC to the County Unified Command Group.

In accordance with state guidelines, during the plume phase of the emergency, the county has the responsibility for assessing the consequences caused by the passage of an airborne radioactive plume and for implementing precautionary

and/or protective measures. The assessment of longer-term effects such as the subsequent intake of radioactive materials through contaminated food and water supplies, as well as liquid releases having the potential for offsite consequences, is the responsibility of the state.<sup>13</sup>

The determination of exposure from the direct (airborne plume) radiation pathway will involve field measurement of direct gamma exposure rates, airborne concentrations of radionuclide particulates and radioiodine, and measurements of radiation exposure rates resulting from the deposition of radioactive material on surfaces. The county will provide appropriately equipped Field Monitoring Teams. The CA Department of Public Health and the federal government will provide supplementary technical expertise and long-term monitoring support.

Accident assessment will begin upon indication of an abnormal condition at the plant. In the initial hours, the county and the utility will be involved. If an emergency condition with the potential for an offsite release remains four to six hours after the initial declaration, the county assessment effort will be augmented by state and federal assistance. (See Figure 5-1) Additional state and federal accident assessment personnel will arrive should the emergency continue beyond the first day, and such personnel will also be incorporated into the decision making process.

DCPP assessment capabilities include field monitoring teams, offsite laboratory, meteorological data collection towers, onsite and offsite monitors, and health physics and other assessment personnel assisted by the computer based Emergency Assessment and Response System (EARS).

DCPP/PG&E Emergency Response Organization (ERO) personnel at the Technical Support Center (TSC, may provide the County with some initial data and projections. However, upon activation of the EOF, data and projections will be the responsibility of the EOF and UDAC. Information will include the following:

- Plant Status and Conditions
- Radioactive Releases (Onsite)
- Offsite Radiation Measurements
- Meteorological Conditions
- Dose Projections
- Protective Actions Recommendations

Initially, this information will be transmitted directly from the power plant to the Sheriff's Department. For all Emergency Classification Levels at ALERT or greater, the county will staff the Emergency Operations Center (EOC) and UDAC including Field Monitoring Teams from the County Environmental Health

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<sup>13</sup> See 'Ingestion Pathway Responsibilities,' Section 5,13

Division. The utility will send a representative to act as an Advisor to the County in the EOC and also send personnel and Field Monitoring Teams to UDAC and the Emergency Operations Facility (EOF) to allow face-to-face interaction with the county. Upon activation of the EOF (by the utility) and the EOC (by the County), the Sheriff's Watch Commander will be relieved from the duty of receiving notifications, status reports and from the duty of responding to protective action recommendations received from the power plant. Information will then be routed to the County through the EOF. The DCPD Advisor to the County emergency organization is responsible for ensuring information continues to be received by the County in a timely manner.

The County Command Group will:

- 3.2.1 Continue to collect information, projections and recommendations from TSC and/or EOF. Although Protective Action Recommendations will be considered, the County Command Group may not implement any decision.
- 3.2.2 Continue to coordinate with and collect information from the Cal OES Warning Center, as needed.
- 3.2.3 Request federal assistance through the state in monitoring and assessment if the emergency level is "ALERT" or greater. (Channel requests through State Warning Center if no Cal OES representative is present in the EOC.)
- 3.2.4 Oversee the dispatch of and subsequent receipt of initial field data from the Joint Field Monitoring Teams.
- 3.2.5 Consult with UDAC (if operational) or with Cal OES concerning radiological consequences and determine if there are any recommendations for protective action.

Upon arrival of the UDAC Coordinator or alternate and appropriate staff at the county EOC, the UDAC will be in operation, and radiological assessment responsibility will rest with this individual as UDAC Coordinator. Within four to eight hours, personnel from the California Department of Public Health will arrive to assist in sample analysis, data interpretation, advising the UDAC coordinator, and preparation of dose estimates. In the longer term, their primary function will be to direct the sampling effort for the protection of food and water supplies in conjunction with the County's Agricultural Commissioner's office. Also within four to eight hours, the U.S. Department of Energy Aerial Monitoring Team can be collecting data by airborne means, if needed.

Information acquisition and accident assessment will take place continuously from the time of initial indication of an accident. To maintain this function while the county emergency organization is forming, the county's initial assessment

rests with the personnel on duty at the Sheriff's Department at time of initial indication of a potential accident.

#### **4. PUBLIC ALERTING, NOTIFICATION, AND INFORMATION**

Primary responsibility for prompt alert and notification of the public lies with the County.<sup>14</sup> Notification of the public involves both alerting that an emergency condition exists and the issuance of instructions to the public so that protective actions may be implemented. For more information on public alert and notification, see the DCPP Design Report for Alert and Notification of the Public.

##### **4.1 Public Alerting and Notification**

When protective actions are issued, an area-wide siren system, designated as the Early Warning System (EWS) within the Emergency Planning Zone (EPZ), will alert members of the general public to go indoors and tune their radios and televisions to any local station to receive emergency information and instructions through the Emergency Alert System (EAS). The siren system has the ability to be activated by single siren, groups, by PAZ, or all sirens. The Command Group will decide which sirens to sound.

The County Public Information Manager (PIM) will develop emergency instructions based on the Command Group decisions. The emergency information will be approved and signed by the Emergency Services Director or designee prior to release. The County EOC Plans Section Situation Status Unit will inform public safety dispatchers or EOCs prior to activation of the Emergency Warning System sirens. The EAS operator will activate the EAS system to broadcast the approved emergency information at the conclusion of the sounding sirens. The County Public Information Officer (PIO) will release the same approved emergency information to the media at the Joint Information Center (JIC).

The State Department of Parks, County Sheriff's Department, Port San Luis Harbor District, County Fire and incorporated personnel from city police, fire, and other departments as necessary and , depending upon the jurisdiction, will carry out the appropriate notifications, as needed.

Isolated rural population and transients may be notified by vehicles with mobile public address systems assisted by helicopter surveillance and warning, as available.

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<sup>14</sup> See Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Appendix 3, "Means for Providing Prompt Alerting and Notification of Response Organizations and the Population," U.S. Nuclear Regulatory Commission, NUREG 0654, Revision 1, November 1980.

Those at sea on commercial or pleasure craft will be notified by marine radio broadcast from the US Coast Guard. Assistance can be provided by air resources as available.

Institutions such as hospitals, nursing homes, and schools may be notified individually via telephone or tone-alert radio with instructions regarding the recommended protective action to be taken. Upon such notification, these institutions will implement their internal emergency response procedures in response to the recommended protective action.

Initially, during an emergency, both local residents and persons traveling through the area will be on the area roads. These local travelers will be advised of the emergency conditions through news releases and Emergency Alert System messages. Non-local travelers can be diverted from entering the planning area. Roadblocks outside the perimeter of the planning area may be established depending on the situation.

For limited numbers of the special populations – those individuals on the Evacuation Assistance List - phone calls, TTY service, or patrol car visits, as appropriate, will be made. This list is developed from cards returned by citizens who receive the annual emergency information calendar (See Section 5.9.1). Independent living individuals unable to evacuate themselves due to a disability or medical need must return a card each year to remain on the list. Individuals who do not return their card are contacted directly by County Office of Emergency Services for follow-up.

The notification system to alert, inform and guide the public has three components:

#### **4.1.1 Notification of the Public Regarding the Emergency**

One of the ways to alert and notify the public of an emergency at Diablo Canyon Power Plant during an ALERT or greater Emergency Classification Level is through the use of print media. For example, information about early actions to move school children from selected schools near the plant could be provided through the media without the use of the Early Warning Systems sirens.

Depending upon the sequence and timing of any safety degradation at the plant, the Emergency Services Director or Public Information Manager (PIM) may provide emergency information to the public using the local Emergency Alert System, and to apprise schools, hospitals and institutions of the conditions at the plant through the use of tone alert radios and or National Oceanic and Atmospheric Administration (NOAA) all hazards radio system.

#### **4.1.2 Public Warnings**

In the event a Protective Action Decision is made for Protective Action Zones (PAZ) to evacuate or shelter in place, warning of the area population can be accomplished by sounding an area-wide outdoor siren system.<sup>15</sup> The siren system is activated from the County Sheriff's Watch Commander's Office, EOC Operations, or the backup location in San Luis Obispo. Sounding the sirens is not a signal to evacuate, but is a signal used alerting of the public to go indoors, turn on a radio or a television to a local station and receive specific information and instructions through use of the Emergency Alert System (EAS) messages.

Even though the siren system covers a wide area around the plant, certain population groups may require additional alerting. For example, persons on beaches and in public parks may not have ready access to radios. In these areas, mobile vehicles with public address systems may be used to alert and provide specific instructions.

In some isolated areas including portions of Montana De Oro State Park, additional notifications may be carried out with the use of mobile public address systems on a California Highway Patrol helicopter or with Sheriff's Department's vehicles. In many situations, these areas will be closed prior to the Protective Action Decision being implemented.

Commercial and pleasure craft off the coast will be notified via marine radio broadcast and by the U.S. Coast Guard on Marine 16.

#### **4.1.3 Public Guidance Information**

Immediately following the activation of the siren system, local radio and television stations will broadcast the EAS message with specific guidance information relative to:

- That an emergency exists at DCP
- Who is issuing the information
- Where to get additional information
- To stay tuned and additional information as necessary

This guidance information will be broadcast regularly and updated as conditions warrant. The use of EAS messaging may be used without using the Emergency Warning System (EWS)

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<sup>15</sup> In some instances this may be done at the Site Area Emergency level, at the discretion of the Command Group

If there is a change in the protective action decision, the siren system will again be activated and additional instructions will be broadcast to the public.

## **4.2 Public Information**

In addition to the Emergency Alert System message content, the county will provide clear and prompt information, such as traffic advisories during an evacuation, or additional measures to be taken to protect against radiation inhalation. Information of this nature will be disseminated from the Emergency Operations Center (EOC) by the County Emergency Alert Systems Operator at the EOC and to the media by the County Public Information Officer at the Joint Information Center (JIC).

Another method of providing information to the public is through the use of social networks, such as Twitter and Facebook and the County Office of Emergency Services website. The use of social media is another channel allowing recipients to receive emergency notifications beyond those methods of traditional alerting systems. All users who are members of the appropriate network may receive the alert. Social media messages will most often be generated from the Joint Information Center and EOC and overseen by the PIM or designee. Because multiple and redundant alerting channels ensure maximum reach of the population in the event of an emergency, alerting via web-based channels allows social network users to receive critical alerts from their trusted organizations. Links can also be provided to sites that are delivering critical information and updates on the emergency. Any social media will be purely as supplemental information source.

### **4.2.1 NOTIFICATION OF UNUSUAL EVENT**

At this level, the EOC and JIC are not activated. Accordingly, the Emergency Services Director (ESD) is responsible for the gathering and release of public information concerning the situation, if necessary. The ESD coordinates with a PIO, the County Office of Emergency Services Coordinators, and DCPD media relations representatives if necessary.

### **4.2.2 ALERT or Greater Emergency Classification Level**

The designated County PIO, in coordination with the designated DCPD/PG&E personnel, will take steps to activate the Joint Information Center (JIC) located on Kansas Avenue, close to the EOC and EOF. The Joint Information Center will include:

- 4.2.2.1 An area for media briefings.

- 4.2.2.2 A Media Communications Area with telephone facilities for use by the media.
- 4.2.2.3 A Public Information Center gathering area for use by County, Utility and various agencies' PIOs and staff collecting information and coordinating with other representatives in preparation of news releases.
- 4.2.2.4 A Phone Assistance Center/Rumor Control (see point 4.2.3 below for details).

The County Command Group shall initiate and authorize public information releases. An approval of a news release will require the authorization of the Emergency Services Director, or others delegated this authority by the ESD.

The County PIM will be responsible for the release of information to the media under the supervision of the County Command Group. The County PIO will serve as the County Spokesperson regarding county actions in response to the emergency. Prior to release, county information will be coordinated, as much as possible, with other involved parties, including DCP, local, state, and federal agencies. No other participating emergency response organization, or agency, should make any public announcement which directly concerns or affects the local county situation without coordinating with the County PIO, PIM or ESD.

Participating emergency response agencies and organizations may send qualified representatives to media briefings concerning their agency/organization actions. In addition to the County PIO, a knowledgeable senior government official may be sent to the Joint Information Center by the County Command Group to participate in media briefings, as soon as this is feasible.

In addition, PG&E will establish an alternate media center in San Francisco, for the purpose of responding to telephone calls from the media. Information released in San Francisco will be consistent with the information that is released in San Luis Obispo.

#### **4.2.3 Phone Assistance Center (PAC) - RUMOR CONTROL FUNCTION**

At ALERT or greater Emergency Classification Level, the County Social Services Director will staff the PAC located in the Public Information Center portion of the JIC.

The JIC staff will provide current information to the PAC staff, including copies of all news releases and EAS messages.

The PAC also performs the rumor control function by identifying misinformation or trends of inquiries and relays this information to the County PIM. A rumor identified by the PAC and relayed to the PIM is checked, through the County Emergency Operations Center/PIM. Rumors that have the potential to adversely affect the response to the emergency should be dispelled through the use of accurate information released to the media by the County Public Information function.

## **5. PRECAUTIONARY AND PROTECTIVE ACTIONS**

Various actions may be implemented. They include precautionary actions; actions to shield people from radioactive material (sheltering) or actions to remove people from the area where a health hazard exists (evacuation).

### **5.1 Precautionary Actions**

Precautionary actions are those steps that can effectively be taken without significant social or economic impact on the area residents while providing increased preparedness in the event of a potential emergency or hazard. These actions may be initiated well in advance of a projected offsite emergency condition and may include some or all of the following:

- Closure of beaches and state
- Mobilization and/or dispatching of bus(es) to standby at appropriate school(s) for possible relocation.
- Restriction of hospital patient admittance to emergency cases only.
- Cancellation of school classes or school closures.
- Relocation of public schools closest to the Diablo Canyon Power Plant.
- Rescheduling of other activities expected to draw large numbers of transients into the area.
- Release of information that the county is monitoring the situation and may recommend protective actions for the public if necessary.

These precautionary measures can be instituted when it has been determined that safety issue at the plant presents an onsite emergency condition; even through no offsite hazard is projected to occur. Measures such as closure of state parks and relocation of public schools closest to the plant enhance the counties preparedness. By taking early precautions both vehicles and personnel are available for other emergency responses if the event escalates to a level that requires protective actions. The use of the Early Warning System sirens are not used for precautionary actions, though the use of the EAS can be used as appropriate.

### **5.2 Protective Actions - Sheltering In Place**

The non-institutionalized population may be sheltered in-place, as a precautionary action, by following emergency instructions received over local radio and television stations. The instructions will tell the population to stay indoors and close doors and windows, if sheltering is ordered. In the event an actual release requires additional safety measures, supplemental emergency instructions will be issued detailing protective measures to be taken, such as sealing off cracks and other openings, turning off ventilation systems, and other forms of improvised protection. Similar measures can be taken within institutions, according to their plans. Public schools districts within the EPZ have sheltering in place procedures in their district's school Standard Operating Procedures. Hospitals follow their own shelter in place procedures.

Should releases occur which would deposit sufficient quantities of radioactive materials in populated areas, sheltered populations would be relocated (i.e., evacuated after plume passage)<sup>16</sup>. If such a situation were to occur, the County would secure the affected areas. Evacuees would be monitored and decontaminated as necessary. In this instance, significant outside assistance through mutual aid from state and federal resources would be required.

### 5.3 Evacuation

The sole purpose of evacuation is to remove the population from the affected areas as rapidly and safely as possible to locations beyond the health hazard limits. Evacuation Routes are found in Section 3.4. The area population is grouped into four categories according to how they evacuate:

- Auto-owning population, defined as those who ride out of the area in private automobiles. This population segment includes all members of car-owning households (except school children, if schools are in session).
- Public school population (if schools are in session), defined as all children at public schools, County Office of Education and California State Preschool schools. This population is evacuated directly from schools, in school buses, under the control of the school staff if they have not been relocated in advance or if there is an order to evacuate.
- Private school and non-California State Preschool students, defined as all children attending private or non-public funded schools. In regards to this Plan, all schools within the EPZ are encouraged to have an emergency response plan that provides information and instructions regarding the care, safety and welfare of the children, personnel and property in the event of an emergency. Protective actions should include sheltering in

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<sup>16</sup> The potential effectiveness of sheltering followed by relocation is documented in the State study of nuclear power plant accidents and in the planning guidance document which designated the emergency planning zone.

place, methods of their evacuation and relocations, and how parents will be notified of an emergency. Private schools within the EPZ are notified by the County Office of Education's notification phone team.

- Non-Auto-Owning population (or carless population), includes all persons in households where a car is not reasonably available for evacuation. Most of this population is evacuated by friends and relatives. Those not evacuated assemble at designated collection points and are evacuated by bus. Those not able to walk to the designated collection points due to a disability or medical need may call the Phone Assistance Center (PAC). (That number is listed in the YP phone book and will also be announced and published in media releases.)
- Population in institutions, defined as primarily those persons in hospitals, nursing homes County Jail, Juvenile Services Center and California Men's Colony. Following the agency's specific Standard Operation Procedures, this population may evacuate, if necessary, directly from the institutions using the facility's buses, special vehicles, or the institution's staff vehicles. Hospitals follow their own evacuation procedures.

The institutional population will be instructed on the evacuation process by the staff of that particular institution. Necessary personal effects will be assembled and essential medical records gathered.

Transit vans, other buses and institutional staff vehicles will pick up ambulatory hospital patients, nursing home residents, and other persons not requiring ambulance transportation. These passengers will be transported directly to their host site, medical facility or congregate care center, as appropriate.

Non-ambulatory persons will be transported directly from institutions by ambulance and other vehicles. These vehicles will be drawn from local fleets and from in adjacent counties.

In specific areas where institutionalized populations cannot evacuate, the County Health Officer may authorize the use of iodine blocking pills made of potassium iodide (KI) for those who remain in affected areas. A summary of the evacuation steps is shown in the table on the following page:

**SUMMARY OF EVACUATION STEPS**

<b>POPULATION SEGMENT</b>	<b>ACTION STEPS AND DESCRIPTIONS</b>
<p><b>AUTO-OWNING POPULATION</b>                       (All members of households, except children at school, having a private vehicle available for evacuation.)</p>	<ol style="list-style-type: none"> <li>1. <b>RECEIVE NOTIFICATION</b>, including instructions for evacuating</li> <li>2. <b>LEAVE PLACE OF WORK.</b></li> <li>3. <b>TRAVEL FROM WORK TO HOME</b>, similar to normal work trip.</li> <li>4. <b>PREPARE HOME FOR EVACUATION:</b> Close house, secure property.</li> <li>5. <b>DRIVE OUT OF THE AREA</b> in private vehicles, using designated routing.</li> </ol>
<p><b>SCHOOL POPULATION</b>                       (All persons in public schools, if not previously relocated)</p>	<ol style="list-style-type: none"> <li>1. <b>RECEIVE NOTIFICATION</b>, including instructions for evacuating.</li> <li>2. <b>MOVE ALL STUDENTS INDOORS</b></li> <li>3. <b>RELOCATE SCHOOL POPULATION IN BUSES</b>, to pre-designated school relocation centers.</li> </ol>
<p><b>NON-AUTO-OWNING POPULATION (CARLESS)</b>                       (Persons not having a private vehicle available for evacuation.)</p>	<ol style="list-style-type: none"> <li>1. <b>RECEIVE NOTIFICATION</b>, including instructions for evacuating.</li> <li>2. <b>PREPARE HOME FOR EVACUATION:</b> Close house, secure property.</li> <li>3. <b>ASSEMBLE AT COLLECTION POINTS</b></li> <li>4. <b>EVACUATE NONAUTO-OWNING POPULATION IN BUSES.</b></li> </ol>
<p><b>PERSONS IN INSTITUTIONS</b>                       (Hospitals, nursing homes, or medical institutions, etc.)</p>	<ol style="list-style-type: none"> <li>1. <b>RECEIVE NOTIFICATION</b>, including instructions for evacuating.</li> <li>2. <b>MOBILE POPULATION</b>, prepare population for evacuation.</li> <li>3. <b>EVACUATE INSTITUTIONAL POPULATION IN BUSES, STAFF VEHICLES, OR SPECIAL VEHICLES</b>, according to the agency’s Standard Operating Procedures (SOP).</li> </ol>
<p>Incarcerated Persons</p>	<ol style="list-style-type: none"> <li>4. <b>RECEIVE NOTIFICATION and institution officials will follow agency’s SOP; if not able to evacuate incarcerated individuals, CHO can authorize the use of potassium iodide (KI).</b></li> </ol>

#### **5.1.4 Confirmation of Evacuation**

Evacuation will be confirmed by law enforcement agencies. Confirmation of evacuation will take place both during an evacuation for the purpose of judging the progress and at the end in order to insure completion.

Although primarily intended to insure the population has left potential impact areas, confirmation also aids in establishing security control of evacuated areas.

#### **5.1.5 Evacuation of On-Site Personnel**

Should it become necessary to evacuate personnel from the plant site, DCPD has designated the southern plant access road as a primary evacuation route with a secondary road to the north through Montana De Oro State Park. (See Figure 5.2) Evacuation from the plant site would come in stages with nonessential personnel evacuating first (i.e., visitors, contractor and construction personnel, and any other onsite individuals who do not have an emergency response assignment). On-site personnel are to assemble at designated points for accountability prior to their being released by the DCPD Site Emergency Coordinator. Alternate offsite assembly areas are available for the north: the parking lot by the Ranger's station in Montana De Oro State Park or the Morro Bay Power Plant, and to the south: the Port San Luis Harbor parking lot adjacent to the plant gate at Avila Beach, the Avila Beach parking lot, or the PG&E Energy Education Center on the frontage road (Ontario Road) at the San Luis Bay Drive exit and U.S. 101.<sup>17</sup> In the case of an on-site evacuation of DCPD personnel "...an estimated 900 [personal] vehicles would be instructed to evacuate the site, with some personnel remaining on-site for emergency action."<sup>18</sup>

County assistance to an on-site evacuation includes the County Command Group providing requested support, as available, to DCPD and notifying off-site locations/operations that may be impacted

#### **5.1.6 Actions During a Security Event**

Should a security event occur at DCPD, actions to protect the health and safety of the public from that event may be necessary. Any actions necessary will be directed and implemented by the Incident Commander responsible for the security event. Any actions necessary due to the security event, are not considered Protective Action Decisions and will not require the use of the siren system or EAS. Should the security event

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<sup>17</sup> For details regarding DCPD/PG&E procedures, see the Diablo Canyon Power Plant Units 1 and 2 Emergency Plan, Section 6.4 Protective Actions.

<sup>18</sup> Final Report Evacuation Time Assessment for Transient and Permanent Population from Various Areas Within the Plume Exposure Pathway Emergency Planning Zone. Wilbur Smith. September 2002. pg. 36.

escalate to cause a potential or actual radiological emergency, the County EOC will implement plans and procedures to provide for the health and safety of the public and Protective Action Decisions make be directed.

Note\* Due to the remote location of DCP, a security event at the plant may have minimal impact on surrounding areas.

## **7. TRAFFIC MANAGEMENT**

The County Unified Command will initiate actions to establish traffic control during the evacuation. The California Highway Patrol (CHP) will be responsible for developing the traffic control strategy and for overall management of the traffic control function. In this role, CHP will be responsible for traffic control on all roads in the unincorporated areas of the county, highways and freeways.

### **7.1 Coordination**

The CHP Area Commander assigned to the County EOC will coordinate with the County Command Group to confirm the overall sequence of evacuation by zone and roadway utilization.

The CHP will be responsible for coordinating with the County Sheriff's Department, county public works department, Caltrans, and the affected city police departments in implementing traffic control plans for the evacuation. Coordinated departmental traffic management plans have been developed and incorporated as Standard Operating Procedures (SOPs).

### **7.2 Traffic Management within Cities**

Traffic management has been pre-planned for evacuation routes, alternate routes, and traffic control points within Emergency Planning Zone Cities. The CHP will dispatch personnel to the individual city emergency operation centers to facilitate traffic management coordination as available.

During the evacuation, normal traffic operations will generally be maintained. Specifically, two-way streets will continue in two-way operations; traffic signals will continue to function and so forth. Some modifications may be made, however all operations will be implemented and supervised by city police and the California Highway Patrol.

During a total area evacuation, there will be considerable traffic congestion on most major roadways. The locations and extent of this traffic congestion are

described in a separate report.<sup>19</sup> Evacuation of most sub areas, such as the Five Cities, would allow traffic on most roads to flow at low speeds.

## **8. NOTIFICATION OF RESIDENTS**

Residents in the Emergency Planning Zone (EPZ) may first be alerted of a DCPD emergency through the use of media releases, social media channels, and through the Early Warning System sirens if there are protective actions. The County is responsible for sounding the sirens if protective actions are directed and has this capability 24 hours per day. The County ensures the Emergency Alert System (EAS) messages are broadcast immediately following the ending of the sounding sirens. The local EAS stations will continue to broadcast EAS messages developed by the county identifying the appropriate protective actions to be taken.

If the siren system should fail, backup public alerting (route alerting) and notification procedures have been developed. If sirens within a city's limits fail to sound, the county will inform that City's Emergency Operations Center (EOC) of the siren failure(s). City personnel will respond to the area of the siren failure and alert the public using vehicle-mounted public address systems and bullhorns. City personnel will inform the public to tune to any local radio or television station for emergency instructions. County resources will help as resources allow.

## **9. HANDLING OF ACCESS AND FUNCTIONAL NEEDS POPULATIONS**

### **9.1 Access and functional needs population**

The county has created a register of EPZ residents requiring evacuation assistance in the event of an emergency. If a protective action to evacuate is required, the county Phone Assistance Center will place calls to pre-registered individuals and will coordinate with the Transit Unit for those individuals needing transportation.

Evacuation transportation assistance for individuals with disability or medical need is arranged through coordination with County EOC Operations Traffic and Evacuations Branch and Med / Health Branch. For individuals not pre-registered, there will be an opportunity for them to call into the Phone Assistance Center during an emergency to request assistance due to a disability or medical need.

### **9.2 Non Auto-Owning Population**

A significant portion of the non auto-owning (carless) population will be evacuated as passengers in private cars driven by family, neighbors, or friends. The evacuation procedure for this group is the same as that of the car-owning population.

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<sup>19</sup> Evacuation Time Assessment for Transient and Permanent Population from Various Areas Within the Plume Exposure Pathway Emergency Planning Zone. Wilbur Smith. 2002

Persons from carless households who do not evacuate as passengers in private cars will assemble at designated collection points. From these collection points buses will transport people to a reception or congregate care center outside the Emergency Planning Zone area.

Most of the populations in urban or suburban areas live within 1/2 to 3/4 mile of a collection point and the majority of this population will walk there. Persons unable to walk to the collection point because of a special need, can, by telephone, request transportation service from their homes

Transit and other buses (including school buses, when not required for schools) can pick up the evacuees who have assembled at the collection points and take them to the reception or congregate care center outside the area.

## **10. CONGREGATE CARE**

In the event of an evacuation, temporary lodging will be required until return is authorized by the state. Most families will likely stay with relatives and friends or seek lodging in hotels and motels. For those who do not wish to use these alternatives, public accommodations will be operated at locations outside of the Emergency Planning Zone. To the north of the area, facilities at Camp Roberts will be established. To the south, a reception center will be opened at Santa Maria Fairpark in the city of Santa Maria. Fairpark in Santa Maria. Both centers provide the following:

- Registration
- Information and assistance in family unification
- Food and lodging (at facility site or a motel voucher)
- Public telephones available if possible
- First aid
- Radiological monitoring (based on the situation)
- Decontamination (based on the situation)

## **11. EXPOSURE CONTROL, RADIOLOGICAL MONITORING, AND DECONTAMINATION**

The County Health Officer with the Unified Dose Assessment Center is responsible for recommending protective actions to the County Command Group to prevent or limit exposure to radioactive materials. Radiation Exposure Criteria for both the general population and emergency workers is found in Table 2.2.

### **11.1 Exposure Control Responsibility**

#### **11.1.1 General Population**

Responsibility for limiting exposure to the general population begins with the UDAC, who makes protective action recommendations for the public to the County Health Officer based on radiological data assessment. The County Health Officer is responsible for recommending protective actions for the public to the County Command Group for a decision.

#### 11.1.2 Emergency Workers

Primary responsibility for monitoring exposure lies with each individual emergency worker. Emergency workers will monitor and record their exposure while in the field. They will relay exposure readings to their respective EWEC Command Centers. If their exposure readings approach any of the dose or exposure limits or designated reporting increments, they will also contact their EWEC Command Centers and at the end of every shift. The EWEC Command Center records the emergency worker exposure and reports the exposures to the Emergency Worker Exposure Control (EWEC) Group personnel, in the EOC. The EWEC personnel will document and maintain emergency worker exposure information. The EWEC Group personnel will inform the County Health Officer of exposures that approach dose and exposure limits.

Only the County Health Officer may authorize emergency worker exposure limits in excess of the exposure or dose limits.

## 11.2 Radiological Monitoring and Decontamination

### 11.2.1 General Population

If there is a significant release of radioactive materials during an evacuation, evacuees may have to be monitored for contamination (deposition of unwanted radioactive material on persons or objects). Trained personnel (mainly or predominately) from DCPD will operate portal monitors and other radiation monitoring equipment at Reception and Congregate Care Centers to determine if any contamination has occurred. Any persons found to be contaminated will be directed to a Decontamination area at the center. These centers are ADA compliant and will accept service animals. Vehicle monitoring will not take place during the emergency phase.

At the Decontamination area, documentation will begin and will continue until the person has been decontaminated (reduction or removal of contaminating radioactive material from a person) or referred for medical follow-up. In San Luis Obispo, County Public Health and other agencies'

personnel will assist in the evacuee decontamination process. In Santa Maria, Santa Barbara County Public Health and other Santa Barbara County agencies' personnel will assist in the evacuee decontamination process at Fairpark. DCPD will provide equipment and personnel for evacuee monitoring. Every effort will be made to limit radiation exposures to staff and to limit the spread of contamination.

Radioactive waste generated in the course of decontamination will be disposed of in accordance with state and federal regulations. It will be the responsibility of PG&E to properly dispose of radioactive wastes resulting from an accident impacting off-site areas.

Depending on the situation, if no radiological release has occurred, Reception and Congregate Care facilities may be opened without Monitoring and Decontamination at the discretion of the County Command Group.

#### 11.2.2 Emergency Workers

Emergency Workers who must work in areas affected by a radioactive plume will wear monitoring devices (dosimeters) to ensure that their exposure to radiation will not exceed specified safe limits. In some cases, area monitoring will be permitted in lieu of individual dosimetry. If a release has occurred, Emergency Worker Decontamination Centers will be established to detect and measure contamination and to decontaminate emergency workers if necessary. Decontamination reduces the potentially harmful effects of radiation exposure by removing radioactive material on the surface and prevents internal contamination.

## 12. EMERGENCY MEDICAL AND PUBLIC HEALTH SUPPORT

### 12.1 Emergency Medical

The County Health Officer ensures continued medical services for the public and emergency workers. This includes health care provisions at the Reception and Congregate Care Centers. The County Health Officer may request CDPH, Disaster Medical Services (DMS) to activate the Regional Disaster Medical Health Coordination Plan and provide state-level assistance.

### 12.2 Handling Contaminated and Injured Patients

The County Health Officer will provide overall direction via the Medical/Health Branch for the coordination of hospital emergency plan activation, medical communications and operational decisions as related to the emergency. This includes the immediate transportation and care for individuals whose injuries are complicated by a radiological exposure or contamination. French Hospital in San

Luis Obispo is the primary receiving hospital. Marian Medical in Santa Maria is the backup hospital. The San Luis Obispo County Emergency Medical Services personnel are trained in handling this type of patient.

### **12.3 Long-Term Medical Follow-up**

The medical effects, if any, due to radiation exposure would occur over a very long period of time following any exposure. Even for "acute" effects (associated with a larger dose occurring over a short time period), most symptoms would occur within a three-to-six month time period following exposure. However, with very high exposure some symptoms may occur within two weeks. Accordingly, registration of the potentially affected population will be accomplished at the time of emergency, but actual medical effects would, in general, not occur within the time frame of the emergency. Planning and implementation of long-term medical programs are the responsibility of the California Department of Public Health (CDPH).

The County Health Officer will assist the implementation of procedures, in conjunction with state agencies, for follow-up monitoring of the public and emergency workers that may have been exposed to radiation. This will include:

- 12.3.1 Maintaining exposure and medical records
- 12.3.2 Providing medical and psychological counseling for individuals with concerns of possible exposure.
- 12.3.3 Providing medical and therapeutic treatment in the event exposures received warrant such treatment.

## **13. INGESTION PATHWAY RESPONSIBILITIES**

Concern about ingestion of contaminated material begins with the release of a radioactive material plume from the nuclear power plant (plume phase). Initial ingestion pathway preventative and hold orders can be put in place by the Command Group during the emergency or plume phase. Protective actions continue into the recovery phase, until the hazard from exposure to radiation through ingestion of contaminated food or water has been mitigated.

The County has the lead for public protection during the plume phase when the primary concern is prevention or reduction of immediate exposure from radioactive material. Preventative and hold orders during the plume phase may include but not be limited to:

- Shelter all livestock (including dairy animals, cows, horses, goats, sheep and pigs) and place on stored feed and water.
- Shelter all poultry and place on stored feed and water.
- Stop pumping from outdoor/ uncovered surface water sources
- Stop all harvest activities including apiaries and backyard gardens
- Stop field preparations and tillage

- Hold dairy products
- Hold harvested crops
- Hold livestock and poultry
- Hold other consumables
- Cease movement of food

The ingestion pathway phase begins at the end of the emergency phase and concurrently with the recovery phase. During the ingestion pathway phase, the concern is with the intake of contaminated food and foodstuffs. The state has the primary response role with support from local and federal government. The California Department of Public Health (is the lead state agency during the ingestion pathway phase and will manage operations from the State Dose Assessment Center (SDAC). Cal OES will support CDPH during this phase.<sup>20</sup>

The emphasis for agricultural actions shifts from the county to the CDPH and Cal OES in the Ingestion Pathway phase. The transition occurs when the plume dissipates and the nuclear power plant reactor is declared stable by DCP/PG&E with the concurrence from the Nuclear Regulatory Commission, with no further uncontrolled releases anticipated.

The State Dose Assessment Center Action Plan will be developed by State/Federal/Local officials with goals, objectives and Federal Radiological Monitoring Assessment Center (FRMAC) capabilities. Based on the results of the State Dose Assessment Center's (SDAC) sampling and surveys, the initial ingestion pathway protective action recommendations may be modified when the Recovery Interagency Coordination Group (RICG) is formed. In addition to agriculture holds, Certification of Commodities for Market, and destruction and or disposal of crops and produce may be required. The County Agricultural Commissioner's office will develop sampling plans and agriculture hold plans (See Ingestion Pathway Zone Map Figure 3.3). Other activities requiring enforcement agency intervention or other support will be coordinated with the appropriate County agency. This coordination will help prevent duplication of effort and unnecessary exposure of emergency workers. Protective decisions will be implemented by the agency having jurisdictional authority. Implementation of these decisions will be accomplished utilizing the California Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS).

### **13.1 Establishment of Ingestion Pathway Zone**

The Ingestion Pathway Zone (IPZ) is designated for planning and protective actions to prevent ingestion pathway exposure. For pre-emergency purposes, the zone encompasses all the area within an approximately 50-mile radius of the plant (Figure 3.3). The actual zone will be determined by plume deposition. The

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<sup>20</sup> State of California Nuclear Power Plant Emergency Response Plan. Governor's Office of Emergency Services Technical Assistance Section Radiological Preparedness Unit. Section 2.7.4, 2004.. DRAFT

boundaries will be modified based on aerial survey data and field survey team results and approved by the State/County unified command management.

### **13.2 Ingestion Pathway Actions During Recovery**

Actions will continue to be taken during the recovery phase to avoid or reduce exposure to radiation from food or water. The type and amount of radioactivity present, or likely to be present, and the hazard it represents are the triggers for decisions to take actions to protect the public. These actions may include, but are not be limited to:

- Relocating livestock
- Agriculture quarantine holds on crops and livestock
- Holds on use of surface water
- Destruction or disposal of crops
- Certification of agricultural commodities

Federal EPA guidance know as Protective Action Guides (PAGs) help determine the projected radiation dose at which public officials should invoke protective actions. When there is a clear, recognizable hazard, initial protective action decisions will be made by State/Federal/County emergency response staff, using standing orders if possible. Where the hazard is low and the best decision unclear, the Recovery Interagency Coordination Group (RICG) (See Section 5.15) will make the final decision.

## **14. RECOVERY PHASE**

The Recovery Phase begins at the end of the plume (Emergency) phase. The recovery phase planning will be initiated before the conclusion of the emergency phase, but it will generally not take place until after the initiating conditions of the emergency have stabilized and immediate actions to protect public health and safety and property have been accomplished. The transition occurs when county and state are notified by DCP/PG&E that the plant has stabilized and no further release is expected, and the NRC has concurred. The State will, on request, assist the County in developing recovery plans.

Recovery is the process of assessing radiation levels in the environment and determining acceptable levels for return by the general public for unconditional occupancy or use after the initial phase of the emergency.<sup>21</sup>

The objective of the recovery operation is to protect public health by reducing and limiting the amount of exposure to individuals from deposited radioactivity, inhalation of re-suspended radioactive material, and exposure from radioactive isotopes that enter the

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<sup>21</sup> State of California Nuclear Power Plant Emergency Response Plan. Section 1, Administration, 2005.  
DRAFT

food chain from the soil, water, crops or livestock feed. The SDAC will develop guidelines for decontamination, waste disposal, for areas or facilities deemed necessary for recovery operations. The authorities having jurisdiction will review and approve guidelines and will develop plans for implementation.

The recovery phase is separated into four sub-phases. Each sub-phase may be in progress at the same time. The four sub-phases and a brief description are as follows:

#### **14.1 Reentry**

Reentry is for essential personnel to reenter a restricted area to perform critical functions. During reentry, survey and sample team members perform detailed radiation dose rate surveys and conduct environmental sampling. The results will be utilized as the basis for protective actions or release to restricted or unrestricted use.

#### **14.2 Restoration**

Restoration is the process of reducing exposure rates and concentrations in the environment to acceptable levels before unrestricted or restricted use begins. The State will support local and operational area governments in their efforts to restore the community to its pre-emergency condition.<sup>22</sup> The Recovery Unit develops recovery criteria recommendations for the Planning Chief. The Operations Chief will then oversee implementation of the policy to achieve the goal of environmental restoration.

#### **14.3 Return**

During the Return Phase, individuals are permitted to reoccupy previously restricted areas. Depending on residual exposure rates and the potential for re-suspension of radioactive particles, precautions may be recommended. Evacuated areas must meet radiation protection criteria to allow for return to homes and businesses. SDAC protective action recommendation (PAR) will be based upon EPA guidance. The decision making authorities will use health effect concerns, the PAR and the socio-economic impacts of relocation to issue a protective action decision (PAD) regarding Return.

#### **14.4 Relocation**

Relocation represents the inability to restore affected areas to unrestricted use. People are removed or excluded from the areas in order to avoid chronic radiation exposures in excess of established limits. Decisions to relocate or attempt to restore will include both technological and socio-economic considerations.

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<sup>22</sup> State of California Nuclear Power Plant Emergency Response Plan. Section 1, Administration, 2005.  
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The Recovery Plan will be developed during the plume phase and the early stages of the recovery phase. The State/Federal monitoring and assessment group will use data collected by both plume and recovery phase field sampling teams to begin establishing criteria for decontamination and recovery. Dose commitment, community priorities for critical areas such as hospitals, schools, utilities and technical considerations will be included in the proposed plan.

The Recovery Interagency Coordination Group (RICG) (described below in **15**) will review the draft plan. After it is approved it will be submitted to other state, county and federal officials. If contamination is extensive, the Recovery Plan may be drafted, reviewed and implemented in several phases, with the earliest actions being implemented while the later phases are developed.

During the Plume Phase, the implemented protective actions which limited direct or indirect exposure to the general population may be extended during the recovery phase by limiting or restricting access to contaminated areas. These limits are set by the United States Environmental Protection Agency's Protective Action Guides (PAGs) for relocation.<sup>23</sup> See the following chart:

<b>RECOVERY PHASE</b>	<b>RELOCATION DOSE LIMITS</b>
First Year Dose	2 REM
Subsequent Yearly Dose	0.5 REM
Fifty Year Total Dose	5 REM

**15. RECOVERY INTERAGENCY COORDINATION GROUP (RICG)**

Local and state governments have the primary responsibility for planning and implementing the recovery of the affected area. Recovery planning will be initiated at the request of the State, but it will generally not take place until after the initiating conditions of the emergency have been stabilized and immediate actions to protect public health, safety, and property have been accomplished by the local authorities. The State will, upon request, assist local governments in developing off-site recovery plans, prior to the deactivation of the State response.

Cal OES will assemble a Recovery Interagency Coordination Group (RICG) to manage the overall activity of State agencies involved in the recovery process. The RICG will consist of local decision-makers, state agency decision-makers, and necessary administrative staff. The director of the RICG will be appointed by the Cal OES regional administrator to facilitate local decision-makers in the recovery phase. The purpose of the RICG, is to provide the local decision makers with immediate access to state resources to help implement their decisions. The objectives of the RICG will be:

<sup>23</sup> Manual of Protective Action Guides and Protective Action for Nuclear Incidents. Appendices E pg. 269-270.U.S. Environmental Protection Agency revised 1991, second printing 1992

- To facilitate local decision-makers in the decision process.
- To provide immediate assistance to local decision-makers with implementation of their decisions.
- To give to the decision-making process the perspectives of different state and county agencies.
- To provide a mechanism for ensuring that the affected agencies and counties are kept informed about decisions, through representation on the RICG.

Each affected agency and county will be represented on the RICG. This representative will be an elected or appointed official or a staff member authorized to make decisions for the organization. This level of representation is necessary so that decisions can be made and implemented quickly, without requiring numerous levels of review. San Luis Obispo County is represented by the County Health Officer, County Administrator, and County Agricultural Commissioner.

Participating agencies and organizations include (but are not limited to):

**State**

- California Department of Public Health
- Division of Drinking Water and Environmental Management, Environmental Management Branch,
- Division of Food and Drug and Special Radiation Programs
  - Radiologic Health Branch,
  - Food and Drug Branch,
- Department of Food and Agriculture
- California Emergency Management Agency

**Affected County**

- Administrative Officer
- Health Officer
- Agricultural Commissioner
- Cal OES Liaison

Planning members will serve as staff to the RICG in the event of an accident. Responsibilities of RICG include:

- Recommend priorities for sampling and agriculture quarantine holds of crops, water, or land areas.
- Review and provide analysis of the State/Federal Monitoring and Assessment Group recommendations.

- Ensure that consideration is given to intangible effects such as marketplace rejection of any food produced in the area near the accident.
- Resolve conflicts between the economic effects of agriculture quarantine holds and the actual hazards of delaying the holds.
- Consideration of means for continued marketing of agricultural products not affected by the release.
- Assure that the RICG members' organizational responsibilities under the emergency plan are met.
- Assess the varying costs of long-term remedial actions and recommendations.
- Provide consultation and recommendations on recovery plans and operation including decontamination and waste disposal.
- Review and consider approval of State/Federal Monitoring and Assessment Group recommendations dealing with re-entry into evacuated areas, return to evacuated areas, and relocation of population from impacted areas.
- Propose termination of the RICG management and transfer associated functions to appropriate agencies.

For the responsibilities of each participating agency and county, see the appropriate emergency plan for each.

**SECTION 6 - EMERGENCY RESOURCES**

**1. EMERGENCY FACILITIES**

The county of San Luis Obispo has multiple facilities that may be activated during an emergency at the Diablo Canyon Power Plant. The primary facility is the Emergency Operations Center (EOC) at 1525 Kansas Ave, in San Luis Obispo. It is co-located with the Sheriff's Department Watch Commander and Dispatch (Public Safety Answering Point-PSAP, Sheriff's Dispatch and MEDCOM) and the Pacific Gas and Electric/Diablo Canyon Power Plant Emergency Operations Facility. The EOC portion of the facility is maintained by Emergency Services Coordinators from the County of San Luis Obispo Office of Emergency Services. Additional county emergency facilities that may be utilized include:

JIC Outside 10 mile zone	Joint Information Center Located on Kansas Ave. San Luis Obispo
PAC Outside 10 mile zone	Phone Assistance Center Located within the JIC on Kansas Ave. San Luis Obispo
County Department Public Works Outside 10 mile zone	Public Works and Transportation Depart. Located in the Old Court House in San Luis Obispo on Palm Street
Various Public Works Maintenance Yards Outside 10 mile zone	Two Yards located throughout the county
COE Outside 10 mile zone	County Office of Education Located on Hwy. 1 Across from Cuesta College
CHA DOC Outside 10 mile zone	County Health Agency Department Operation Center (Medical/Health Branch) Located in San Luis Obispo on Johnson Ave,
Fire Emergency Command Center (ECC) Outside 10 mile zone	County Fire Emergency Command Center Located on Hwy. 1
County Govt. Center Outside 10 mile zone	Located on Monterey Street Downtown San Luis Obispo

CHP Area Office And Dispatch Center Outside 10 mile zone	California Highway Patrol Located in San Luis Obispo California Blvd.
Sheriff's substation Los Osos Substation within 10 mile zone	County Sheriff's Department Headquarters and 3 stations throughout the county
DPR Dispatch Facility Outside 10 mile zone	CA State Parks Central Communications Monterey County
CALTRANS District Dispatch Outside 10 mile zone	California Department of Transportation Located on Higuera Street San Luis Obispo
Communications Shop Outside 10 mile zone	County Information Technology Department Located on Kansas Ave San Luis Obispo
ARC Outside 10 mile zone	American Red Cross Chapter Office Located on Prado Road in San Luis Obispo
RACES Outside 10 mile zone	Fixed equipment at various locations throughout the county
OEL Outside the 10 mile zone	Offsite Emergency Laboratory Located at the PG&E Service Center Lower Higuera Street San Luis Obispo

**2. EMERGENCY EQUIPMENT AND SUPPLIES**

**2.1 Overview**

This preparedness function will be coordinated by Cal OES and San Luis Obispo County OES.

**2.1.1 Scope**

The following equipment testing and calibration criteria will be applied to all equipment required for the implementation of the Nuclear Power Plant Emergency Response Plan.

## **2.2 Criteria**

### **2.2.1 All Equipment**

The equipment and instruments including motor vehicles, communication or data processing equipment, and the like, which are in regular non-emergency use by public or private agencies and organizations, but would be required in order to implement a response to a nuclear power plant emergency, will be tested as follows:

2.2.1.1 Manufacturer's recommendations for periodic testing and calibration should be carried out. The necessary testing and calibration instruments, tools, and technically competent personnel for this purpose may be available in the county, or arrangements will be made for compliance with manufacturer's recommendations by shipping equipment elsewhere for periodic testing and calibration-provided that adequate backup exists for equipment temporarily out of service for this purpose.

2.2.1.2 Instruments and equipment which would be used during an actual nuclear power plant emergency will be tested during drills and exercises. Any equipment found to be malfunctioning should be calibrated, repaired or replaced.

### **2.2.2 Equipment Used Only During Nuclear Emergencies**

2.2.2.1 In addition to the criteria above, equipment used only during emergencies should be inspected and inventoried quarterly and after each use (trainings, drills and exercises).

2.2.2.2 All battery-operated equipment or instruments should not be stored with the batteries installed, unless checked, and the batteries should be tested, inventoried, and if necessary, charged or replaced on a regular basis.

2.2.2.3 Manufacturer information regarding radio interference not affecting Personal Electronic Dosimeters is available from County OES.

## **2.3 Equipment Inventory**

The County Office of Emergency Services will ensure the inventory of applicable equipment and instruments which are to be used specifically for implementation of this Plan, and are not used for regular non-emergency purposes.

This inventory will include the following categories:

- 2.3.1 Protective equipment
- 2.3.2 Communications equipment
- 2.3.3 Radiological monitoring equipment
- 2.3.4 Emergency supplies

This inventory will be reviewed annually and maintained in County Office of Emergency Services files. Each organization to which equipment is assigned is responsible for assisting the County Office of Emergency Services in collecting the required inventory information.

San Luis Obispo County OES will review any map products related to the NPP Emergency Preparedness Program annual and update as necessary.

### **3. RESOURCE AGREEMENTS**

The County of San Luis Obispo is the Operational Area Coordinator for resources and support during an accident at Diablo Canyon Power Plant and will coordinate with the State Mutual Aid Region I.

The Mutual Aid Region will function under the direction of the Cal OES Regional Emergency Operations Center (REOC) Director and will be responsible for coordinating appropriate resources and/or support activities.

The Cal OES Secretary, or a designated representative, will have overall responsibility for coordinating state, federal and private resources in support of Mutual Aid Regions.

Volunteer and private agencies are also part of the Mutual Aid System. The American Red Cross is an essential element of San Luis Obispo County's response to meet the care and shelter needs of evacuees.

### **4. OTHER RESOURCES**

The county of San Luis Obispo has an Emergency Operations Plan that addresses policies and procedures for providing or coordinating the provision of services, equipment and supplies to support emergency operations. It describes the governmental organizations responsible for providing resources to support emergency response and recovery. The procurement of supplies, personnel, transportation, etc. may be subject to special to special orders and regulations promulgated by the Governor during a State of Emergency.

## SECTION 7 - PROGRAM MAINTENANCE

### 1. PLAN AND PROCEDURE MAINTENANCE

#### 1.1 Overview

The County Administrator, using staff assigned to the County Office of Emergency Services, is responsible for the annual review and necessary preparation and distribution of any updated version of this Plan and procedures. All plan call lists should be reviewed quarterly and updated as necessary. Every responding department, agency, and jurisdiction is responsible for developing and maintaining current internal call lists and procedures for prompt alerting and mobilizing those personnel responding to the emergency upon notification. The County Office of Emergency Services will ensure that current updates of the Emergency Notification list are distributed to appropriate notifying agencies at least quarterly, as required. Revisions of the Plan will be distributed in accordance with the distribution list.

#### 1.2 Responsibility

The County Administrator is responsible for plan maintenance; the tasks which may be performed by a designated Emergency Services Coordinator in the County Office of Emergency Services are as follows:

- 1.2.1 This plan will be reviewed annually and updated as needed. The update will incorporate improvements derived from drills, exercises and real events.
- 1.2.2 Updated or revisions to the Plan are to be distributed per the distribution list.
- 1.2.3 Recipients of controlled copies will be provided with copies of all revisions.
- 1.2.4 County and other agencies assigned emergency responsibilities under this Plan will develop and keep current detailed Standard Operating Procedures (SOPs). Agencies will review their SOP's annually. If there are any revisions to agencies' SOPs, County Office of Emergency Services will update and distribute the revised SOP according to the distribution list.
- 1.2.5 The county will conduct training exercises and drills in conjunction with Cal OES and DCP/PG&E.

1.2.5.1 The Plan and any approved changes will be forwarded to all organizations and individuals with responsibilities for implementation. Revised pages will be dated and marked to show where changes have been made.

## **2. EMERGENCY RESOURCE MAINTENANCE**

### **2.1 Overview**

The majority of the resources needed to support this Plan are used (therefore tested) in daily operations by a variety of agencies and jurisdictions. Failures in daily use are handled in the normal course of business by the affected entity.

Detailed information on specific hardware can be found in applicable Standard Operating Procedures (SOPs) - see Part Three of the Plan.

### **2.2 Specific Resource Maintenance Items**

#### **2.2.1 Emergency Operations Center (EOC)**

The County Office of Emergency Services (OES) conducts monthly inspections, inventories, and tests of EOC systems that may not be used on a daily basis. This includes, but is not limited to tests of telephones, computers, printers, fax equipment, radios, dedicated RED phone, Brown phone system, DCPD Operations Radio Net, Tone Alert Monitors, photocopier, EOC/EOF public address system, televisions and a walk down check of interior EOC sprinkler fire extinguisher valves, lights, exterior lighting and drainage system.

PG&E is responsible for maintenance and testing of the EOC physical plant, including the standby generator and uninterrupted power supply (UPS).

#### **2.2.2 Standard Operating Procedures (SOPs)**

The County Office of Emergency Services (OES) serves as the custodian and central control point for SOPs that are Part Three of this Plan. See Part Three, Standard Operating Procedure (SOP) Numerical Listing.

SOPs for County Departments are reviewed / revised annually on a rotating schedule. Page changes are made on an interim basis as determined necessary by OES.

All SOP holders are queried quarterly for critical changes such as names, phone numbers, and other communications links.

Distribution of SOP controlled or confidential copies to SOP holders and the EOC is handled by County OES. OES removes the proprietary information in controlled copies and provides sanitized copies or copies with confidential information removed for public access. OES also distributes sanitized copies of each SOP to applicable State and Federal agencies.

### **2.2.3 Tone Alert Monitors**

The Tone Alert Monitors distributed to schools, hospitals, and other locations are tested monthly during the EOC tests. Schools verify their receipt of the monthly test and verification postcards are distributed to all tone alert monitor holders twice a year.

### **2.2.4 Emergency Worker Exposure Control (EWEC) Kits**

Change-out of kit contents is coordinated by County OES. Kit contents are covered in detail in the SOP HP-11. EWEC kits are inventoried quarterly under guidance from County OES.

### **2.2.5 Field Monitoring Team (FMT) Equipment**

FMT kits are inventoried and inspected quarterly in accordance with the SOP, HP-3. DCPD provides instruments and equipment and is responsible for their maintenance and calibration.

### **2.2.6 Computers**

All computers that are used in emergency response activities are tested on a regular basis as part of the monthly EOC checks (see 2.2.1 above).

### **2.2.7 Radios and Emergency Alert System (EAS)**

The County Communications Shop (County Comm) conducts regular testing of applicable radio systems and the Emergency Alert System.

### **2.2.8 Radiological Monitoring Equipment**

Instruments other than those used by the FMTs are provided by California OES, are calibrated on an annual basis and are stamped with a current service stamp. The Ludlums are operationally checked quarterly. Portal monitors are maintained by DCPD.

### **2.2.9 Early Warning Sirens**

DCPP/PG&E is responsible for the installation, testing maintenance and upgrade of the EWS system. The first sirens were provided for the County by PG&E on 12/20/1982. As of March 2006, all 131 sirens in the EPZ have been replaced and upgraded to have battery back-up power. PG&E is responsible for acoustical testing, as necessary. PG&E owns the operating system, radio mountain top repeaters, poles, provides electrical power to sirens and maintains the operability of the battery back-up system.

San Luis Obispo County (SLC) authorizes the use of the sirens. SLC OES incorporates siren information in SOPs, coordinates public information regarding general or basic siren information, public notices and information about quarterly growl testing for individual sirens and the annual full sound test for all sirens simultaneously.

Both DCPP and SLC OES provide results of the annual siren testing.

### **2.3 Joint Information Center (JIC)**

DCPP/PG&E has a facility on Kansas Avenue near the EOC and is responsible for maintaining the facility, all maps, displays, status boards, and provides security at the JIC during drills, exercises and actual events.

San Luis Obispo County OES maintains a common office space for PIO staff and various agency/departments PIOs in the facility's PIO room. The Phone Assistance Center (PAC) is located adjacent to this common office. The telephones used by the PAC personnel are maintained by DCPP/PG&E and County OES.

A laptop, projector, screen, tables and chairs are in the common briefing room and are maintained by DCPP/PG&E. All county-maintained equipment is checked monthly.

## **3. TRAINING**

### **3.1 Overview**

#### **3.1.1 Scope**

The training program is applicable to the county Plan only and is limited to providing for response to offsite emergency actions. (In cooperation with County OES, DCPP Fire provides on-site emergency response training for offsite fire agencies.) Training includes key concepts and principals of the Incident Command System (ICS), Standardized Emergency Management System (SEMS) and National Incident Management System (NIMS) applicable at all jurisdictional levels and

across functional disciplines. County OES has the responsibility of coordinating and sometimes providing the training for the various agencies.

### **3.1.2 Frequency**

Except where noted differently, training should be provided on an annual basis. It is recommended that participation in training, be done on a rotating basis to continually expand the group of people who are trained. Refresher training or retraining will be provided as determined by the County OES.

### **3.1.3 Training Needs and Audience**

Table 7.3-1 indicates the training needs for applicable audiences. Details of the topic content for each training need is listed in item 3.2 below. See individual SOP to determine appropriate training for emergency workers implementing that procedure.

### **3.1.4 Training Coordination Responsibilities**

Table 7.3-1 indicates the organization responsible for coordinating the required training for each agency having a role in the county Plan.

### **3.1.5 Training Record Summary**

The County Office of Emergency Services will be responsible for ensuring the required training is provided and will maintain records of training courses and attendees. A summary of training conducted is sent to Cal OES.

## **3.2 Training Needs Detailed**

This section provides detail on the scope of each of the training needs identified in Table 7.3-1 and specifies the coordinating agency. Table 7.3-1 also provides a summary of audiences and coordination responsibilities.

### **3.2.1 County Command**

Classroom training on aspects of emergency management will be provided to the County Command Group. Topics addressed in this training include:

- 3.2.1.1 Meteorology
- 3.2.1.2 Protective action recommendations
- 3.2.1.3 UDAC operations
- 3.2.1.4 County, state, federal, and utility roles

- 3.2.1.5 County Command coordination
- 3.2.1.6 Incident Command System (ICS)
- 3.2.1.7 Standardized Emergency Management Systems (SEMS)
- 3.2.1.8 National Incident Management Systems (NIMS)

### **3.2.2 Emergency Plan Overview**

A briefing of the county Plan shall be given to organizations indicated on Table 7.3-1. The topics covered in the briefing include:

- 3.2.2.1 Emergency plan elements
- 3.2.2.2 Response organization responsibilities
- 3.2.2.3 Emergency classification system
- 3.2.2.4 Planning zones
- 3.2.2.5 Coordination concepts
- 3.2.2.6 Concept of operations
- 3.2.2.7 Incident Command System (ICS)
- 3.2.2.8 Standardized Emergency Management Systems (SEMS)
- 3.2.2.9 National Incident Management Systems (NIMS)

### **3.2.3 Radiation and Biological Effects**

Organizations with responsibility for conducting field operations in the plume exposure emergency planning zone, as indicated on Table 7.3-1, will be given classroom training covering the basic aspects of radiation and associated biological effects. Topics addressed in this training include:

- 3.2.3.1 Ionizing radiation
- 3.2.3.2 Types of radiation
- 3.2.3.3 Radiation terminology and units of measure
- 3.2.3.4 Dose vs. dose rate
- 3.2.3.5 Acute vs. chronic exposure
- 3.2.3.6 Risks associated with radiation exposure
- 3.2.3.7 Background radiation

### **3.2.4 Introduction to Nuclear Power**

Classroom training is available to organizations expressing an interest in the basic concepts of nuclear power. Topics addressed in this training may include:

- 3.2.4.1 Fission process
- 3.2.4.2 Basic components of a nuclear power plant
- 3.2.4.3 Steam generation and electrical production
- 3.2.4.4 Cooling and heat removal

- 3.2.4.5 Multiple barrier concept
- 3.2.4.6 Emergency Planning and Response

### **3.2.5 Exposure Control for Emergency Workers**

Organizations with responsibility for conducting operations in the plume exposure emergency planning zone, as indicated on Table 7.3-1, will be provided instruction on exposure control. This classroom training will include hands-on training of the exposure control equipment used by emergency workers. Topics covered in this training include:

- 3.2.5.1 ALARA concepts
- 3.2.5.2 Dosimetry use
- 3.2.5.3 Exposure tracking techniques
- 3.2.5.4 Potassium iodide
- 3.2.5.5 Protective action guidelines and exposure limits
- 3.2.5.6 Emergency equipment storage locations

### **3.2.6 Standard Operating Procedures**

Organizations with responsibility for implementing standard operating procedures, as indicated on Table 7.3-1, will be provided classroom training specific to their role in emergency response. A numerical listing of the Standard Operating Procedures detailed in Part 3 of the Plan is listed in Table 7.3-2. Topics covered in this training include but are not limited to:

- 3.2.6.1 Purpose and scope
- 3.2.6.2 Communications and notifications
- 3.2.6.3 Emergency organization and responsibilities
- 3.2.6.4 Initiating conditions
- 3.2.6.5 Emergency actions
- 3.2.6.6 Documenting information and actions
- 3.2.6.7 Demobilization and recovery

Tabletops and drills will be conducted as deemed appropriate by the County OES.

### **3.2.7 Accident Assessment**

Classroom instruction and working problem sessions shall be given to key individuals designated to perform dose calculations and analysis in UDAC. (See Table 7.3-1). The training shall include:

- 3.2.7.1 Conversion of monitored data to dose projections

- 3.2.7.2 Estimating exposure from source term
- 3.2.7.3 Dispersion of radioactive material in the atmosphere
- 3.2.7.4 Recommending protective actions based upon dose projections

This course will be coordinated by County OES and DCPD. Participants, in addition to OES and DCPD, may include individuals from County Environmental Health, Agricultural Commissioner, Air Pollution and Control District, *CDPH*, Cal OES. DCPD will provide training on the Emergency Assessment and Response System (EARS) which has been installed at the Emergency Operations Facility (EOF). The County OES will monitor course content and specify supplemental training as required. Drills will be conducted in conjunction with health physics drills sponsored by DCPD. FEMA also offers an accident assessment course which fulfills the classroom portion of this training requirement.

### **3.2.8 Fielding Monitoring**

A briefing and field drills will be provided to those designated in Table 7.3-1 on the use of monitoring equipment for detection of a radioactive plume. The field drill shall include the use of radio and satellite phone communications to report readings to the Unified Dose Assessment Center (UDAC). Training drills will be provided by DCPD. Training shall also be provided in conjunction with the annual exercise or health physics drills.

### **3.2.9 Medical Response**

This training is applicable to health care professionals handling serious accidents involving radioactive contamination, which could occur due to an accident onsite. Federal guidance requires designation of a primary and back-up hospital capable of handling a limited number of patients who would most likely be both injured and contaminated. As indicated in Table 7.3-1, this training is required for the County Health Officer and recommended for other physicians who may be presented with this type of case. The Radiation Emergency Assistance Center/ Training Site (REAC/TS) at Oak Ridge, Tennessee, currently offers a 3 ½-day course for medical personnel (including emergency room physicians, nurses, medical technicians, supervisors, and paramedics) which fulfills this training need. .

- 3.2.9.1 Radiation Fundamentals for Medical Staff

Local medical professionals with knowledge of radiation exposure and the medical effects are needed to treat persons not hospitalized but who may have been exposed to

or contaminated by small amounts of radiation. The County Health Officer and CDPH will identify course candidates and will promote attendance at courses to be developed under their joint guidance. Public Health Nurses also receive annual training in methods for decontaminating non-injured evacuees and emergency workers.

### **3.2.10 Operations of Reception, Monitoring and Decontamination and Congregate Care Facilities**

Both the County Emergency Operations Plan and the Nuclear Power Plant Emergency Response Plan call for training of the County Health Agency, American Red Cross and Department of Social Services employees who may be involved in the operation of congregate care facilities. Training content includes:

- 3.2.11.1 Concept of operations
- 3.2.11.2 Registration
- 3.2.11.3 Providing care
- 3.2.11.4 Resources and record keeping
- 3.2.11.5 Handling welfare inquiries and distributing information
- 3.2.11.6 Basic radiation fundamentals
- 3.2.11.7 Incident Command System (ICS)
- 3.2.11.8 Standardized Emergency Management Systems (SEMS)
- 3.2.11.9 National Incident Management Systems (NIMS)

Training will be provided by the American Red Cross, County OES and DCP; County OES will ensure participation by appropriate agencies.

### **3.2.11 Those involved with the Phone Assistance Center operation.**

Applicable training includes:

- 3.2.12.1 Use of rumor-control telephones
- 3.2.12.2 Handling of Evacuation Assistance calls
- 3.2.12.3 Concept of operation
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- 3.2.12.6 Rumor-control information
- 3.2.12.7 Standardized Emergency Management Systems (SEMS)
- 3.2.12.8 National Incident Management Systems (NIMS)

## **3.3 Training of Mutual Aid Forces**

### **3.3.1 Law Enforcement**

The training provisions include training for the County Sheriff's Department forces, as well as the incorporated cities within the Emergency Planning Zone, which are within the mutual aid district for law enforcement. Such training is applicable to the response outside the DCP/PG&E property.

### **3.3.2 Fire Service**

The training provisions include training for the offsite fire services within the Emergency Planning Zone. The training detailed in this section is applicable to response assignments outside the DCP/PG&E property.

### **3.3.3 Ambulance/Rescue**

Paramedics, including ambulance service personnel are trained in accordance with State Law and their Scope of Practice. In addition, they receive training from DCP regarding response to the site involving the transport of a contaminated, injured person.

## **3.4 Training of Personnel Responsible For Transmittal of Emergency Information and Instructions**

3.4.1 County Public Information Officers (PIOs) and assistants are included in the training program with regard to Plan content, departmental duties, and specific procedures.

3.4.2 In addition, participation in drills and the full-scale emergency preparedness exercise will serve as training for these designated individual.

## **3.5 Media Briefing/Training**

An annual media briefing/training will be conducted in coordination with DCP. In lieu of attendance, information will be provided regarding nuclear power plant emergency preparedness.

# **4. EXERCISES AND DRILLS**

## **4.1 Overview**

### **4.1.1 NUREG – Specified Scope**

Exercises and drills will be conducted by appropriate county agencies in accordance with the standards and criteria of NUREG 0654/FEMAREP-1, Planning Standard N. Exercises will be conducted according to the eight year exercise cycle.

#### **4.1.2 Added Scope**

Consistent with the expanded drill sequence initiated by state and federal agencies in 1981, and the 1980, 1985 and 1993 revised Memorandum of Understanding (MOU) that establishes policy and terms for mutual cooperation in evaluating emergency preparedness in support of nuclear power plants; the following drills are to be accomplished:

- 4.1.2.1 Interagency Coordination Exercise (Dress Rehearsal/Training Exercise): To develop a working interface capability between the County EOC, UDAC, DCP/PG&E, EOF, and Joint Information Center PIOs, Cities, various Department Operations Centers (DOCs) and agencies.
- 4.1.2.2 Health Physics and Radiation Monitoring Drills: To practice making dose projections and protective action recommendations for UDAC personnel and measuring radiation levels for field monitoring teams.
- 4.1.2.3 Public Information Drill: To test the effectiveness of communications systems and message handling.
- 4.1.2.4 Reception and Congregate Care Facilities Drill: To develop and promote a working relationship with others (Red Cross, National Guard, etc.) involved in operating congregate care facilities. (tabletop or walkthrough may be held in conjunction with bi-annual exercise.)
- 4.1.2.5 School Drill: To permit school officials to practice using their standard operating procedures.

#### **4.2 Implementation of Exercises and Drills**

Implementing objectives, instructions, procedures, schedules, lists of participants, scenarios, response functions to be exercised or drilled, arrangements for official observers and detailed evaluation criteria are to be developed by the County Office of Emergency Services. The implementation of the exercises and drills are in accordance with the extent of play developed and coordinated with Diablo Canyon Power Plant Emergency Planning and the California Office of Emergency Services prior to each exercise with acknowledgement from the Nuclear Regulatory Commission (NRC), California Department of Public Health (CDPH) FEMA and approval from FEMA.

The Radiological Emergency Preparedness REP Program Manual is used as the guidance for preparing and administering the exercise and drill program. Self (player/participant) critiques and controller critiques are conducted immediately after each drill or exercise and a formal evaluation report is generated using the guidance provided in the Radiological Emergency Preparedness Exercise Evaluation Methodology.

Full scale exercises of this plan and its procedures are conducted in accordance with the time frame stated in federal requirements and the 8 year exercise schedule.

The County Administrator will be responsible for ensuring that all drills and exercises described in NUREG 0654/FEMA-REP-1 are scheduled and carried out by participating agencies as appropriate and will establish the necessary procedures and assign responsibility for ensuring that the results of all exercises and drills are incorporated into the plan documents prior to the next scheduled exercise or drill.

The County OES will send a record of training and drills conducted annually to Cal OES.

Pursuant to NUREG-0654/FEMA-REP-1, periodic exercises will be conducted to evaluate major portions of emergency response capabilities, periodic drills will be conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills will be corrected. These exercises and drills are as follows:

- 4.2.1 Full scale emergency preparedness exercise
- 4.2.2 Communication drills
- 4.2.3 Medical emergency drills
- 4.2.4 Radiological monitoring drills
- 4.2.5 Health physics drills

## **5. PUBLIC EDUCATION**

### **5.1 Scope**

This Plan, the State of California Nuclear Power Plant Emergency Response Plan, and the Diablo Canyon Power Plant Emergency Plan provide for government and other identified organizations to perform coordinated action in the event of an emergency at Diablo Canyon Power Plant. To properly implement the Plan, the public must be informed of emergency preparedness activities. This is accomplished through a Public Education program which includes, but is not limited to, the following:

- 5.1.1** Annual distribution of Important Emergency Information within the Emergency Planning Zone (PAZs 1-12) and the 3 Public Education Zones (PEZs) adjacent to the Emergency Planning Zone (EPZ). This annually updated Emergency Information can be in the form of a calendar or a booklet that can be inserted in the recipient's telephone book and it can include but not limited to the following information:
- 5.1.1.1 Instructions for public response to an emergency at Diablo Canyon Power Plant including public school relocation center locations, monitoring, decontamination and reception center and congregate care center locations, important information regarding the Emergency Warning System Sirens and the Emergency Alert System messages (heard on all local radio and television stations) and information regarding ingesting Potassium Iodine.
  - 5.1.1.2 General background information about nuclear power generation, radiation, and the Emergency Response Plan for Diablo Canyon Power Plant.
  - 5.1.1.3 Forms for registering members of the public who need special assistance and/or transportation in an emergency.
- 5.1.2** Annual publication in the local YP telephone book. Calendar or booklet will contain nuclear emergency information pertaining to both the Emergency Planning Zone (EPZ) and the Public Education Zones (PEZ). The annually reviewed and updated information will provide information relating to the sounding of the Early Warning System Sirens; instructions to tune to a local radio or television station to receive the Emergency Alert System messages; emergency telephone number for inquiries and/or assistance, collection point locations, public school relocation centers, public monitoring, decontamination and reception center and congregate care center locations, pet information, service animal information; monitoring and decontamination centers; information regarding potassium iodine (KI) and a map showing the EPZ (with PAZ descriptions) and PEZs in San Luis Obispo County; Website information, Facebook and Twitter.
- 5.1.3** Preparation and distribution of siren information stickers for use in hotel and motel rooms, lobbies, and places of public assembly. The stickers remind the public to listen to local radio or television stations for emergency information if a steady siren of three to five minutes should sound.
- 5.1.4** Promote public awareness of the Emergency Response Plan for Diablo Canyon Power Plant in conjunction with field exercises. Promotion can be accomplished through news releases in cooperation with PG&E, the

American Red Cross, Cal OES, or other emergency response organizations.

- 5.1.5** Annual postcard distribution, by DCPD, within the EPZ and PEZs informing residents of annual siren test. Information includes the areas where the sirens will be heard, instructions on what to do if sirens are heard at times other than test days, a request that the public not call 9-1-1 for information about the test, and where to find additional emergency information.
- 5.1.6** Postcard distribution, by DCPD, for those residents and businesses within the northern Santa Barbara County. The postcard provides information as to where to find emergency information about DCPD and how Santa Barbara County is prepared to assist in the event of an emergency at Diablo Canyon Power Plant.
- 5.1.7** An Agricultural booklet is produced by CDPH detailing specific information for ranchers, farmers, producers, processors, distributors, etc. regarding specific agriculture issues. Limited Agriculture information is also included in the annual public information.
- 5.1.8** Although San Luis Obispo County Emergency Planning Zone does not meet the requirement to produce non-English language materials, Spanish information is available.

## **5.2 Content**

The following shall be the minimum content addressed in the annual distribution of the Diablo Canyon Power Plant Emergency Response Information:

### **5.2.1 Emergency Instructions**

- 5.2.1.1 The meaning of the siren (go indoors and stay tuned to a local radio or television station).
- 5.2.1.2 Other means of notification of the general public.
- 5.2.1.3 Protective actions emphasizing shelter or evacuation.
- 5.2.1.4 Description of emergency classification levels.
- 5.2.1.5 Sheltering -- what steps the public should take.
- 5.2.1.6 Evacuation -- what steps the public should take and the location of the reception and congregate care centers.

- 5.2.1.7 Identification of protective action zones.
- 5.2.1.8 Main evacuation routes to monitoring, decontamination and reception center and congregate care center locations.
- 5.2.1.9 Identification of principle arteries to evacuation routes.
- 5.2.1.10 Identification of telephone numbers for urgently needed information and/or transportation assistance during evacuation.
- 5.2.1.11 Information regarding Potassium Iodide (KI) for instance, where to purchase and when KI should be taken and by whom.
- 5.2.1.12 Use telephones for personal emergencies only.
- 5.2.1.13 How public schools will be relocated, including information on planned public school relocation centers.
- 5.2.1.14 Notifications for those at sea.
- 5.2.1.15 Special provisions for individuals with access and functional needs.

## **5.2.2 General Information**

The following key points will be provided:

- 5.2.2.1 Nuclear Power
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- 5.2.2.2 Radiation
  - 5.2.2.2.1. Description.
  - 5.2.2.2.2 Health effects.
  - 5.2.2.2.3 Potassium Iodide (KI)
- 5.2.2.3 Response Plan
  - 5.2.2.3.1 How plan is activated.

- 5.2.2.3.2 What preparations are in place according to the Plan.
- 5.2.2.3.3 What the public can do to assist.
- 5.2.3 Questions Expected (Example Listing)
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  - 5.2.3.2 Who will decide what to do?
  - 5.2.3.3 What about visitors?
  - 5.2.3.4 When should I take Potassium Iodide (KI)?
  - 5.2.3.5 What can I do to help or be prepared?
- 5.2.4 Emergency Checklist
  - 5.2.4.1 Shelter
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    - 5.2.4.1.2 Stay tuned to local radio or television station.
    - 5.2.4.1.3 Additional provisions such as emergency supply of water, food, medications and a means of communication..
  - 5.2.4.2 Evacuation
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    - 5.2.4.2.2 Where to go.
    - 5.2.4.2.3 Protective Action Zone \_\_\_\_\_ has been instructed to evacuate.
    - 5.2.4.2.4 Ride with friends or offer transportation.
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## ATTACHMENT 1.1: GLOSSARY<sup>24</sup>

**ACCIDENT:** An uncontrolled event which has the potential for creating an emergency condition.

**AGRICULTURAL HOLD AREAS:** Predetermined areas within the 50 mile Ingestion Pathway Zone. The purpose of the Agricultural Hold Area is to prevent the movement of potentially contaminated food, fodder or water until sampled and certified as being safe for marketing.

**AIR SAMPLING:** The collection and analysis of samples of air to measure its radioactivity or to detect the presence of radioactive substances, particulate matter or chemical pollutants.

**ALERT:** Events are in process or have occurred that involve actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of hostile action. Any releases expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.

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

**BACKGROUND RADIATION:** Radiation arising from material other than the one directly under consideration. Cosmic rays and natural radioactivity are always present, and man-made sources may also contribute to the background radiation levels.

**COMMAND GROUP:** Those in charge of the County Emergency Organization; including the Emergency Services Director as the lead individual and three other members, the County Sheriff, County Fire Chief, and County Health Officer.

**COMMITTED DOSE EQUIVALENT (CDE):** Refers to the radiation dose that will be received over a period of 50 years from the ingestion or inhalation of a particular quantity of a radionuclide or a specific mix of radionuclides.

**COMMITTED EFFECTIVE DOSE EQUIVALENT(CEDE):** Refers to the radiation dose that will be received over a period of 50 years from the inhalation (or ingestion) of radionuclides, where the individual organ doses have been adjusted so that the associated risk of fatal cancer can be added to the risk of fatal cancer from whole-body dose.

**CONGREGATE CARE CENTER:** Refers to a facility for temporary housing, care and feeding of evacuees. Can also be referred to as a Shelter.

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<sup>24</sup> REV. 50.; MAY 2006

**CONTAMINATION:** The deposition of unwanted radioactive material on the surfaces of structures, areas, objects, or personnel.

**CORRECTIVE ACTIONS:** Those emergency measures taken to ameliorate or terminate an emergency situation at or near the source of the problem in order to prevent an uncontrolled release of radioactive material or to reduce the magnitude of a release, e.g., shutting down equipment, firefighting, repair and damage control. Corrective actions are taken by the power plant operators.

**DECAY:** Disintegration of the nucleus of a radionuclide in a radioactive process.

**DECAY RATE:** The decrease in the activity of a radioactive material within a given time. The decay rate is usually expressed in terms of the period during which half of the atoms will disintegrate, i.e., the half-life.

**DECONTAMINATION:** The reduction or removal of contamination (unwanted radioactive material) from a structure, area, object or person. Decontamination may be accomplished by (1) treating the surface to remove or decrease the contamination; (2) letting the material stand so that the radioactivity is decreased as a result of natural decay; and (3) covering the contamination to shield or attenuate the radiation emitted.

**DEPARTMENT OPERATIONS CENTER (DOC):** Location where operational coordination is accomplished for a specific department or function. May also function as a branch of the Emergency Operations Center (EOC).

**DOSE:** A general term denoting the quantity of radiation or energy absorbed. For special purposes it must be appropriately qualified. If unqualified, it refers to the absorbed dose.

**DOSE CORRECTION FACTOR:** Any factor that is used to change an environmental measurement to dose.

**DOSE LIMITS FOR EMERGENCY WORKERS:** Refers to the allowable accumulated dose during the entire period of the emergency. Action to avoid exceeding the limit is taken based on actual measurements of integrated gamma exposure. In contrast, protection action guides are trigger levels of projected dose at which actions are taken to protect the public. These actions are taken prior to the dose being received.

**DOSE RATE:** The amount of radiation to which an individual would be exposed per unit of time.

**DOSIMETER:** An instrument for measuring and registering total accumulated exposure to penetrating ionizing radiations

**EFFECTIVE DOSE EQUIVALENT (EDE):** The sum of the products of the dose equivalent to each organ and a weighting factor, where the weighting factor is the ratio of the risk of mortality from delayed health effects arising from irradiation of a particular organ or tissue to the

total risk of mortality from delayed health effects when the whole body irradiated uniformly to the same dose.

**EMERGENCY ACTION LEVEL (EAL):** Specific contamination levels of airborne, waterborne, or surface deposited concentrations of radioactive materials; or specific instrument indications (including their rates of change) that may be used as threshold for initiating such specific emergency measures as designating a particular class of emergency, initiating a notification procedure, or initiating a particular protective action.

**EMERGENCY ALERT SYSTEM (EAS):** Replaces the Emergency Broadcasting System (EBS). Method of advising public of protective measures via broadcast and cable media.

**EMERGENCY CLASSIFICATION LEVEL (ECL):** The four levels of nuclear power plant emergencies established by the Nuclear Regulatory Commission/Federal Emergency Management Agency: Notification of Unusual Event, Alert, Site Area Emergency, and General Emergency.

**EMERGENCY MEASURES:** A collective term encompassing the assessment, corrective, and protective actions taken during the course of the emergency condition.

**EMERGENCY OPERATIONS CENTER (EOC):** Offsite locations from which control and/or coordination of offsite emergency actions are affected. The center is staffed by key County emergency personnel charged with overall coordination and implementation of offsite emergency operations and protective actions for the public.

**EMERGENCY OPERATIONS FACILITY (EOF):** This is the location from which DCP/PG&E personnel evaluate and coordinate activities in response to an accident at DCP. The EOF is co-located with the EOC and is approximately 12 miles from DCP. PG&E provides information on accident conditions at DCP to Federal, State and local authorities for implementation of offsite emergency plans. Office space is also provided for the NRC, FEMA, State OES and staff of the UDAC.

**EMERGENCY PHASE:** Refers to the initial phase of response actions, during which actions are taken in response to a threat of release or a release in progress.

**EMERGENCY PLANNING ZONE (EPZ):** The Diablo Canyon Power Plant (DCPP) is completely within San Luis Obispo County. The State of California has divided an area around the Diablo Canyon Power Plant into 12 Protective Action Zones (PAZs). These 12 PAZs form the Emergency Planning Zone for the Diablo Canyon Power Plant. PAZs 1 through 5 form an area whose boundary is approximately 10 miles from the DCP facility. PAZs 1 through 5 comprise the area where the federal government has primary oversight responsibility for plans and preparedness. The U.S. Department of Homeland Security (FEMA) is the organization responsible for offsite emergency preparedness within the area defined as PAZs 1 through 5. PAZs 6 through 12 extend beyond the approximate 10 mile limit and comprise the area where the State of California has primary responsibility for plans and preparedness. The planning and preparedness for the Diablo Canyon Power Plant incorporates a single concept of operations for

the entire emergency planning zone. FEMA evaluates the portions of the plans and preparedness activities associated with the area and population within PAZ 1 through 5. The Governor's Office of Emergency Services reviews the portions of the plans and preparedness activities associated with the area and population within PAZ 6 through 12. The Emergency Planning Zone is the area where protective actions may be required. The range of protective actions includes sheltering in place and evacuation.

**EMERGENCY SERVICES COORDINATOR (ESC):** A member of the Command Group of the County Emergency Organization acting under the direction of the Emergency Services Director.

**EMERGENCY SERVICES DIRECTOR (ESD):** A member of the Command Group who is in charge of the County Emergency Organization. The County Administrative Officer is assigned this title, however, four alternates are also named. The term Emergency Services Director, as used in this Plan, refers to the County ESD unless otherwise noted.

**EVACUATION:** The process of moving people from a potentially hazardous area to a safe area.

**EXPOSURE:** A measure of the ionization produced in air by X or gamma radiation. The Roentgen (R) is the unit of exposure. The term "dose" is sometimes used interchangeably with exposure and refers to absorbed ionization of energy in air.

**FIELD MONITORING TEAM (FMT):** A group of individuals trained in the use of field radiation detection instruments who conduct field surveys and samplings.

**GENERAL EMERGENCY (GE):** Events that are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity or hostile action that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area.

**IMPLEMENTING INSTRUCTIONS:** Step by step instructions which implement the provisions of the Emergency Response Plan.

**INGESTION PATHWAY:** A route by which released radioactive material is introduced into the environment, including food chain and/or water supply, and is subsequently ingested by members of the population.

**INSTITUTIONALIZED INDIVIDUALS:** Are individuals who reside in institutions, such as nursing homes or prisons, and may need to depend on others for assistance with protective actions. Institutionalized individuals may or may not have special needs or functional diversity

**LOW POPULATION ZONE (PAZ 1 AND 2):** The area immediately surrounding the exclusion area of the power plant which contains residents, the total number and density of which are such that there is reasonable probability that appropriate protective measures could be taken in their behalf in the event of a serious accident (10 CFR 100.3). For Diablo Canyon

Power Plant this is an area encompassed by a radius of approximately 6 statute miles (10KM). This area corresponds to Protective Action Zones 1 and 2.

**NOTIFICATION OF UNUSUAL EVENT (UE):** Events are in process or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.

**OFFSITE:** Any area outside of the PG&E owned Diablo Canyon Power Plant property line.

**ONSITE:** The area within the property upon which the Diablo Canyon Power Plant is located, and over which the Pacific Gas and Electric Company exercises access control. This area is approximately 900 acres immediately surrounding the plant.

**PLUME EXPOSURE PATHWAY:** The means by which the radioactive material released from the facility (plume) may expose the population at risk to radiation. This exposure may be external exposure from the passing plume, from contaminated surfaces, or may be from inhalation of the passing plume.

**PRESSURIZED WATER REACTOR (PWR):** A power reactor in which heat is transferred from the core to a heat exchanger by water kept under high pressure to achieve high temperature without boiling in the primary system. Steam is generated in a secondary system. Diablo Canyon is the type of reactor.

**PROJECTED DOSE:** An estimate of the radiation dose which affected individuals could potentially receive if protective actions are not taken.

**PROTECTIVE ACTION GUIDE (PAG):** Projected radiological dose or dose commitment values to individuals in the general population that warrant protective action following a release of radioactive material. Protective actions would be warranted provided the reduction in individual dose expected to be achieved by carrying out the protective action is not offset by excessive risks to individual safety in taking the protective action. The PAG does not include the dose that has unavoidably occurred prior to the assessment.

**PROTECTIVE ACTIONS:** Those emergency measures taken after an uncontrolled release of radioactive material has occurred for the purpose of preventing or minimizing radiological exposures to persons that would be likely to occur if the actions were not taken.

**PUBLIC EDUCATION ZONE (PEZ):** The State of California Nuclear Power Plant Emergency Response Plan area enclosed by a boundary beyond the Basic EPZ to include the area where a public education program is implemented. The Public Education Zone for Diablo Canyon consists of zones 13, 14, 15.

**RADIOLOGICAL EMERGENCY:** A situation, excluding events from nuclear warfare, leading to a release of a radioactive material at or produced by a fixed nuclear facility of a magnitude that exceeds or may exceed protective action guides.

**RADIOLOGICAL MONITORING:** The operation of locating and measuring radiation by means of survey instruments which can detect and measure radiation.

**RECOVERY PHASE:** The phase that begins at the end of the plume (Emergency) phase. The recovery phase includes decision making and operational actions associated with reentry of personnel into restricted areas, restoration of areas, return of individuals to areas that have been evacuated or restricted and relocation of individuals from areas where exposure rates exceed safe limits.

**REENTRY:** Reentry is for essential personnel or the public to reenter a restricted area to perform critical functions under controlled conditions on a temporary basis.

**RELOCATION:** Relocation represents the inability to restore affected areas to unrestricted use. People are removed or excluded from the areas not previously evacuated in order to avoid chronic radiation exposures in excess of established limits.

**ROENTGEN EQUIVALENT MAN (REM):** The unit of dose equivalent of any ionizing radiation which produces the same biological absorbed dose of ordinary x-ray. A milliREM (mREM) is one-thousandth of a REM.

**RESTORATION:** The process of reducing exposure rates and concentrations in the environment to acceptable levels before unrestricted or restricted use begins.

**RETURN:** Recovery sub-phase when individuals are permitted to reoccupy previously restricted areas. Depending on residual exposure rates and the potential for re-suspension, precautions may be recommended.

**ROENTGEN (R):** Is the unit of exposure. The term “dose”, sometimes used interchangeably with exposure, refers to absorbed ionizing energy.

**SHELTER:** A structure or other location offering shielding from nuclear radiation in the environment.

**SHELTERING:** The use of a structure for radiation protection from an airborne plume and/or deposited radioactive materials.

**SITE BOUNDARY:** The perimeter surrounding the restricted area within which the power plant lies. For Diablo Canyon, an approximate ½ mile radius from the plant may be taken as the site boundary.

**SITE AREA EMERGENCY (SAE):** Events are in process or have occurred which involve an actual or potential substantial degradation of the level of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of hostile action. Any releases are expected to be limited to small fractions of the EPA Protection Action Guideline exposure levels.

**SPECIAL POPULATION:** Are groups of individuals with physical or mental handicaps that need assistance when protective actions are implemented.

**TECHNICAL SUPPORT CENTER (TSC):** The TSC is separated from but in close proximity to the plant Control Room which has the capability to display and transmit plant status to personnel responsible for engineering and management support of reactor operations in the event of an accident. TEDE Total effective dose equivalent.

**THYROID BLOCKING AGENCY:** Or thyroid prophylaxis, a stable (non-radioactive) iodine administered to limit the uptake of ingested or inhaled radioiodine by the body.

**THYROID EXPOSURE:** Radiation exposure to the thyroid through inhalation ingestion of radioactive materials.

**TOTAL EFFECTIVE DOSE EQUIVALENT (TEDE):** See "Effective Dose Equivalent"

**UNUSUAL EVENT (UE):** Same as Notification of Unusual Event - Events are in process of have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection has been initiated. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.

**UNIFIED DOSE ASSESSMENT CENTER (UDAC):** A location where offsite dose projections and recommendations for protective actions are developed and reviewed by the combined technical expertise of the utility, County, State, and Federal representatives. UDAC is co-located with the EOF and EOC.

**WHOLE BODY EXPOSURE:** Direct external radiation exposure to the body from airborne radioactive materials or soil contamination.

### ATTACHMENT 1.2: ACRONYMS

ALARA	As Low As Reasonably Achievable
AMT	Aerial Monitoring Team
ANI	American Nuclear Insures
ARAC	Atmospheric Release Advisory Capability
ARC	American Red Cross
ARES	Amateur Radio Emergency Services
Cal OES	California Emergency Management Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALTRANS	California Department of Transportation (Caltrans)
CANG	California National Guard
CAO	County Administrative Officer
CDCR	California Department of Corrections and Rehabilitation
CDE	Committed Doe Equivalent
CDPH	California Department of Public Health
CFR	Code of Federal Regulations
CHA	County Health Agency
CHA DOC	County Health Agency Department Operations Center
CHP	California Highway Patrol
DCPP	Diablo Canyon Power Plant
DMS	Disaster Medical Services
DOE	U.S. Department of Energy
DPW&T	Department of Public Works and Transportation

DSS	California Department of Social Services
DSW	Disaster Service Worker
EAL	Emergency Action Level
EARS	Emergency Assessment and Response System
EAS	Emergency Alert System
ECC	Emergency Communications Center
ECL	Emergency Classification Level(s)
EMAD Center	Evacuee Monitoring Decontamination Center
EMSA	Emergency Medical Services Agency (local); Authority (State)
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EPA	U.S. Environmental Protection Agency
EPZ	Emergency Planning Zone
ERM	Emergency Response Manager
ESD	Emergency Services Director
ETE	Evacuation Time Estimate
EWEC	Emergency Worker Exposure Control
EWS	Early Warning System (sirens)
FEMA	Federal Emergency Management Agency
FMT	Field Monitoring Teams
FRERP	Federal Radiological Emergency Response Plan – now part of the National Response Framework
FRMAC	Federal Radiological Monitoring & Assessment Center

GE	General Emergency – NRC emergency classification level
GIS	Geographical Information System (Computerized Mapping)
HP	Health Physics / Health Physicist
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
IPZ	Ingestion Pathway Zone
JIC	Joint Information Center
JMC	Joint Media Center – now JIC
KI	Potassium Iodide
MIDAS	Meteorological Information Dose Assessment System (Computer System)
mR	milliRoentgen
mRem	millirem
NCRP	National Council on Radiation Protection
NIMS	National Incident Management System
NPP	Nuclear Power Plant
NPP ERP	Nuclear Power Plant Emergency Response Plan
NRC	U.S. Nuclear Regulatory Commission
NUE	Notification of Unusual Event
NUREG	Nuclear Regulatory Document
NWS	National Weather Service
OA	Operational Area
OEL	Offsite Environmental Laboratory

OES	Office of Emergency Services
ORO	Offsite Response Organization
PAC	Phone Assistance Center (Rumor Control)
PAD	Protective Action Decision
PAG	Protective Action Guidelines
PAR	Protective Action Recommendation
PAZ	Protective Action Zone
PED	Personal Electronic Dosimeter
PEZ	Public Education Zone
PG&E	Pacific Gas and Electric Company
PHN	Public Health Nurse
PIC	Pressurized Ion Chamber or Public Information Coordinator
PIM	Public Information Manager
PIO	Public Information Officer
RACES	Radio Amateur Civil Emergency Service
RAP	Radiological Assistance Program (U.S. DOE)
REAC/TS	Radiation Emergency Assistance Center/Training Site
REM	Roentgen Equivalent Man
REOC	Regional Emergency Operation Center (State OES)
REP	Radiological Emergency Preparedness
RHB	Radiological Health Branch (of CDHS)
SAE	Site Area Emergency
SDAC	State Dose Assessment Center

SEMS	Standardized Emergency Management System
SOC	State Operations Center (Cal OES)
SOP	Standard Operating Procedure
SWC	California State Warning Center
TEDE	Total Effective Dose Equivalent
TLD	Thermoluminescent Dosimeter
TSC	Technical Support Center
UDAC	Unified Dose Assessment Center
UE	Unusual Event, NRC Emergency Classification Level
UHF	Ultra High Frequency (a local government radio net)
VHF	Very High Frequency (a local government radio net)
WC	Watch Commander

**ATTACHMENT 2: NUREG CROSSWALK**

San Luis Obispo County NUREG-0654 Crosswalk

2014

NUREG-0654/FEMA REP-1 Criterion <sup>1</sup>	Description	Reference <sup>2,3</sup>	
Assignment of Responsibility (Organization Control)	A.1.a	Response Agencies Within the EPZ	Section 4; 1.0, 2.0, 3.0 Section 4, 2.0
	A.1.b	COO for Each Organization and Suborganization	Section 5, 1-4
	A.1.c	Interrelationships Illustrated in a Block Diagram	Figure 4.1.1
	A.1.d	Individual in Charge of Emergency Response	Section 4; 1.0 & 3.1
	A.1.e	24-hour Emergency Response/Communications	Section 5; 1.0 Section 4; 4.0 Figure 4.1.1
	A.2.a	Functions/Responsibilities by Title	Figure 4.1.2
			Figure 4.1.3
			Figure 4.1.4
			Figure 4.1.5
			Section 1; 4.1-4.3 Section 4; 3.0
A.2.b	Legal Basis for Authorities	Section 1; 6.0	
A.3	Written Agreements Between Agencies Within EPZ	Section 4; 1.0	
A.4	Individual Responsible for 24-hour Operations	Section 4; 2.0 Section 6; 1.0	
Emergency Response Support and Resources	C.1.c	Resources Available to Support Federal Response	Section 5; 2.0
	C.2.a	ORO Dispatch to EOF	Section 1; 6.0
	C.4	Mutual Aid Agreements/LOA's for Nuclear Response	Section 3; 8.0
	D.3	Emergency Classification Scheme	Part 2; Table 3.7
Emergency Classification System	D.4	Procedures for Emergency Actions	Section 5; 4.2.1, 4.2.2
Notification Methods and Procedures	E.1	Notification of OROs Consistent with ECLs	Section 5; 2.0
	E.2	Alerting, Notifying, and Mobilizing Emergency Personnel	Section 5; 4.0
	E.5	Public Information: EAS Messages/Follow-up/Media	Section 5; 4.0
	E.6	Activating Public Notification Systems	Section 5; 8.0
	E.6	Activating Public Notification Systems	SOP III.08
	E.7	EAS Messages for PADs	Section 5; 1.0
	F.1.a	Provision for 24-hour Public Notification	Section 5; 1.0
Emergency Communications	F.1.b	Communication with Contiguous Local Governments	Section 5; 1.0 SOP III.15
	F.1.b	Communication with Contiguous Local Governments	Section 5; 1.0
	F.1.c	Communication with Federal EROs	SOP III.15
	F.1.c	Communication with Federal EROs	Section 5; 1.0
	F.1.d	Communication between DCPP, EOF, EOC, and FMTs	SOP III.06 HP-3
	F.1.d	Communication between DCPP, EOF, EOC, and FMTs	Section 5; 2
	F.1.e	Alerting/Activating Emergency Personnel in OROs	SOP III.05
	F.2	Communication for Fixed/Mobile Medical Facilities	Section 6, 2.2
	F.3	Periodic Testing of Emergency Communications System	Section 7; 5.1.1-5.1.2
	G.1	Annual Public Information (Calendar/Phonebook)	Section 7; 5.1.3
Public Education and Information	G.2	Public Information for Permanent & Transient Population	Section 6; 1
	G.3.a	Physical Location for News Media During Emergency	

1

<sup>1</sup>NUREG-0654/FEMA REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, U.S. Nuclear Regulatory Commission/Federal Emergency Management Agency, November 1980, Revision 1  
<sup>2</sup>San Luis Obispo County/Cities Nuclear Power Plant Emergency Response Plan, San Luis Obispo County Office of Emergency Services, January 2014, Rev. 14  
<sup>3</sup>Page numbers referenced signify the beginning of sections containing pertinent information. The material meeting NUREG-0654/FEMA REP-1 criterion may be found on subsequent pages.

San Luis Obispo County NUREG-0654 Crosswalk

2014

	G.3.a	Physical Location for News Media During Emergency	Section 5; 4.1
	G.4.a	Designated Spokesperson with Access to Information	Section 5; 4.1
	G.4.b	Arrangements for the Exchange of Information	Section 5; 4.1
	G4.b	Arrangements for the Exchange of Information	Section 5; 4.2.1-4.2.2
	G.4.c	Arrangements for Rumor Control	Section 5; 4.2.3
	G.5	Annual News Media Training Programs	Section 7; 3.5

\*Section referenced is predominant section in Administrative Plan.

NUREG-0654/FEMA REP-1 Criterion <sup>1</sup>	Description	Reference <sup>2,3</sup>	
Emergency Facilities and Equipment	H.3	EOC for Directing and Controlling Response Functions	Section 4; 1.-1.5
	H.4	Activation/Staffing of Facilities and Centers in Plan	Section 2.8, SOP III.01 ESD, III.15 Plans
Emergency Facilities and Equipment (Continued)	H.7	Offsite Radiological Monitoring Equipment	SOP III.06 HP-11
	H.10	Inspect, Inventory, & Operationally Check Equipment	Section 6; 2.3
	H.11	Identify Emergency Kits by General Category	Section 6; 2.3
	H.12	All FMT Data to EOF for Analysis	Section 5; 3.1-3.2
Accident Assessment	I.7	Capability and Resources for FMTs within EPZ	Section 5; 3.1-3.2, SOP III.06 HP-3
	I.8	FMT Activation/Notification, Provisions, Deployment Times	SOP III.06 HP-3 SOP III.06 HP-3
Protective Response	J.2	Provisions for Evacuation of On-site Individuals	Section 5, Section 5.1.5
	J.9	Implementing Protective Measures Consistent with PAGs	Section 3; 3.0-3.3
	J.10.a	Maps Included in Plan (Routes, Sampling, Relocation Areas)	Part 2
			SOP III.06 HP-3
	J.10.b	Population Distribution Maps by Evacuation Areas	Part 2; Table 3.2.1-3.3.2
	J.10.c	Notification of All Transient and Resident Population	Section 5; 4.1
	J.10.d	Protection of Mobility Impaired	Section 5; 5.3, 9.1-9.2
	J.10.e	KI for Emergency Workers/Institutionalized Persons in EPZ	Section 3; 3.3
			Section 3; 4.0
	J.10.f	Decision to Administer KI to General Population/EWEC	Section 3; 3.3
	J.10.g	Means of Relocation	Section 5; 5.1
	J.10.h	Relocation Centers at Least 5 Miles Beyond EPZ	Section 3; 6.1
			Part 3; Figure 3.7
	J.10.i	Projected Traffic Capacities of Evacuation Routes	Section 5; 7.1-7.2
J.10.j	Responsibility and Control of Access to Evacuated Areas	Page 5-49, Section 5.1.2	
		Page 5-52, Section 5.1.4	
J.10.k	Potential Impediments to Use of Evacuation Routes	Section 5; 7.1-7.2, SOP III.20	
J.10.l	Evacuation Time Estimates for EPZ	Part 2; Table 3.2.1-3.3.2	
J.12	Registering/Monitoring of Evacuees at Relocation Centers	Section 5; 10.0	
		SOP III.06 HP-15	
		SOP III.06 HP-7	

2

<sup>1</sup>NUREG-0654/FEMA REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, U.S. Nuclear Regulatory Commission/Federal Emergency Management Agency, November 1980, Revision 1

<sup>2</sup>San Luis Obispo County/Cities Nuclear Power Plant Emergency Response Plan, San Luis Obispo County Office of Emergency Services, January 2014, Rev. 14

<sup>3</sup>Page numbers referenced signify the beginning of sections containing pertinent information. This material meeting NUREG-0654/FEMA REP-1 criterion may be found on subsequent pages.

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Radiological Exposure Control	K.3.a	24-hour Capability to Determine Emergency Worker Dose	Section 5; 11.1.2 SOP III.06, HP-11
	K.3.b	Appropriate Frequencies for Dosimeters/Dose Records	SOP III.06, HP-11
	K.4	Emergency Worker Exposures in Excess of EPA PAGs	Part 2; Table 2.2
	K.5.a	Action Levels to Determine the Need for Decontamination	Section 5; 11.2, SOP III.06 HP-7, III.06 HP-15
	K.5.b	Radiological Decontamination and Waste Disposal	Section 5; 11.2, SOP III.06 HP-7, SOP III.06 HP-15

NUREG-0654/FEMA REP-1 Criterion <sup>1</sup>	Description	Reference <sup>2,3</sup>	
Medical and Public Health Support	L.1	Hospitals/Medical Services with Radiological Capability	Section 5; 12.2
	L.4	Transportation of Radiologically Contaminated Patients	Section 5; 12.2
Recovery and Reentry Planning and Post-Accident Operations	M.1	Plans and Procedures for Reentry and Recovery	Section 5; 14-14.3
Exercises and Drills	N.1.a	NRC/FEMA Rules for Conducting Exercises	Section 7; 4-4.2
	N.1.b	Annual Exercise Requirements	Section 7; 4-4.2
	N.2.a	Communication Drills	Section 7; 4-4.2
	N.2.c	Medical Emergency Drills	Section 7; 4-4.2
	N.2.d	Radiological Monitoring Drills	Section 7; 4-4.2
	N.3.a	Objectives and Evaluation Criteria	Section 7; 4-4.2
	N.3.b	Date, Time Period, Place, and Participating Organizations	Section 7; 4-4.2
	N.3.c	Simulated Drill Events	Section 7; 4-4.2
	N.3.d	Time Schedule of Real and Simulated Initiating Events	Section 7; 4-4.2
	N.3.e	Narrative Summary	Section 7; 4-4.2
	N.3.f	Arrangements for Observer Materials	Section 7; 4-4.2
	N.4	Official Observer Responsibilities	Section 7; 4-4.2
	N.5	Corrective Actions and Implementation	Section 7; 4-4.2
Radiological Emergency Response Training	O.1	Radiological Emergency Response Training	Section 7; 3.0
	O.1.b	Training for OROs	Section 7; 3.0
	O.4.a	Directors or Coordinators of the ORO*	Section 7; 3.0
	O.4.b	Personnel Responsible for Accident Assessment*	Section 7; 3.2.7
	O.4.c	Radiological Monitoring Teams and Analysis Personnel*	Section 7; 3.2.8
	O.4.d	Police, Security and Fire Fighting Personnel*	Section 7; 3.3
	O.4.f	First Aid and Rescue Personnel*	Section 7; 3.3.3
	O.4.g	Local Support Services Personnel*	Section 7; 3.2.11 Section 7; 3.2.12
	O.4.h	Medical Support Personnel*	Section 7; 3.2.9
	O.4.j	Transmission of Emergency Information and Instructions*	Section 7; 3.4
	O.5	Initial/Annual Retraining of Emergency Response Personnel	Section 7; 3.0

\*Specialized Initial Training and Periodic Retraining Required, Information further detailed in Table 7.3-1.

Responsibility for the Planning Effort; Development, Periodic	P.1	Training for Individuals Involved in Planning Effort	Section 7; 3.2.10
	P.2	Individual with Radiological EP Authority/Responsibility	Section 7; 1.1

3

<sup>1</sup>NUREG-0654/FEMA-REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, U.S. Nuclear Regulatory Commission/Federal Emergency Management Agency, November 1980, Revision 1

<sup>2</sup>San Luis Obispo County/Cities Nuclear Power Plant Emergency Response Plan, San Luis Obispo County Office of Emergency Services, January 2014, Rev. 14

<sup>3</sup>Page numbers referenced identify the beginning of sections containing pertinent information. This material meeting NUREG-0654/FEMA/REP-1 criterion may be found on subsequent pages.

San Luis Obispo County NUREG-0654 Crosswalk

2014

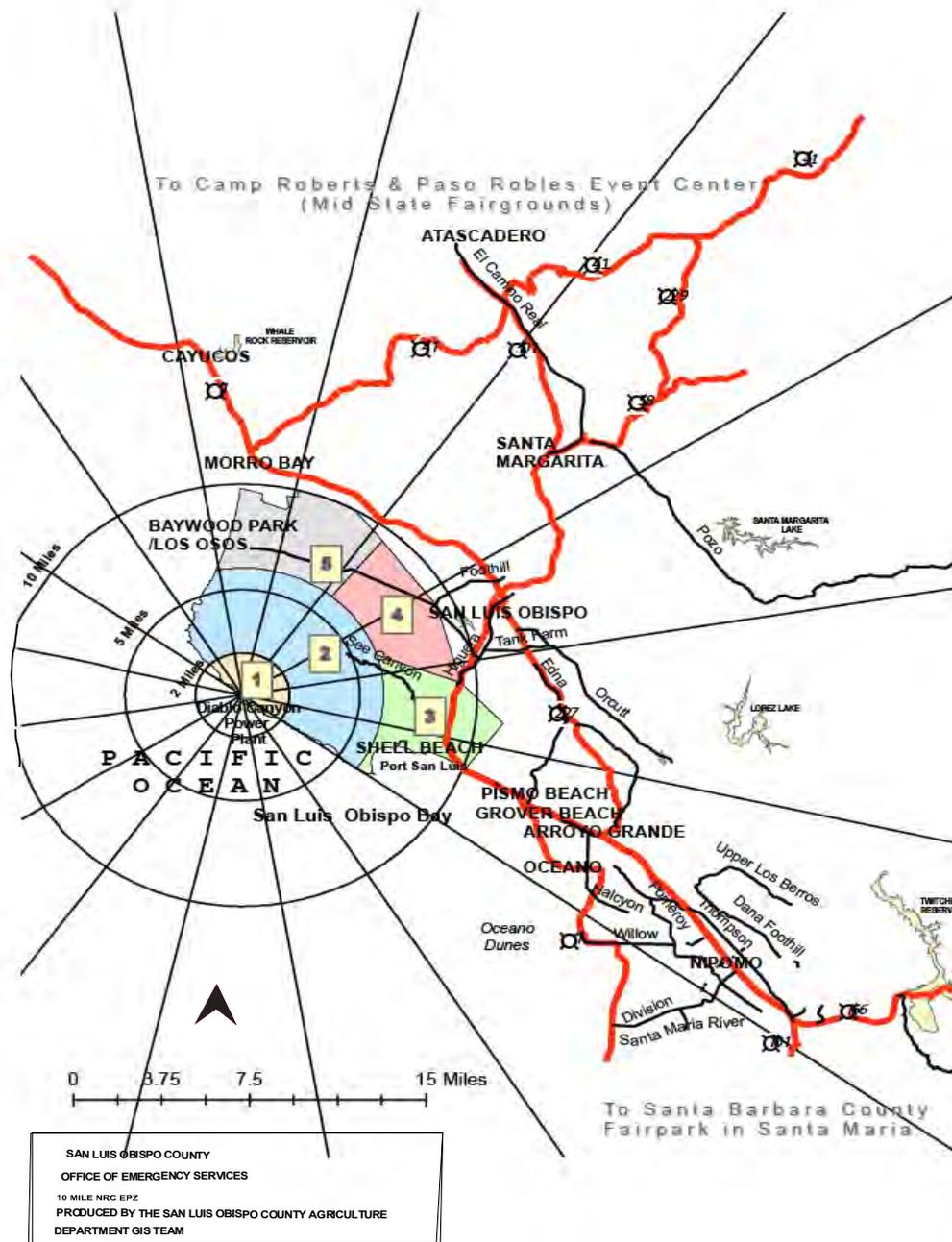
Review and Distribution of Emergency Plans	P.3	EP Coordinator Responsibilities	Section 7; 1.2
	P.4	Annual Review of Plans and Agreements	Section 7; 1-1.2.5.1
	P.5	Forwarding Revised Emergency Plans	Section 7; 1-1.2.5.1
	P.6	Supporting Plans and Sources	Section 7; 1-1.2.5.1
	P.7	Procedures Required to Implement the Plan by Title	Page ii, Foreword
			Part 2; Table 7.3-2
	P.8	Cross-references Table of Contents	Part 2; Attachment 2
	P.10	Telephone Numbers in Emergency Procedures	Section 7; 2.2.2



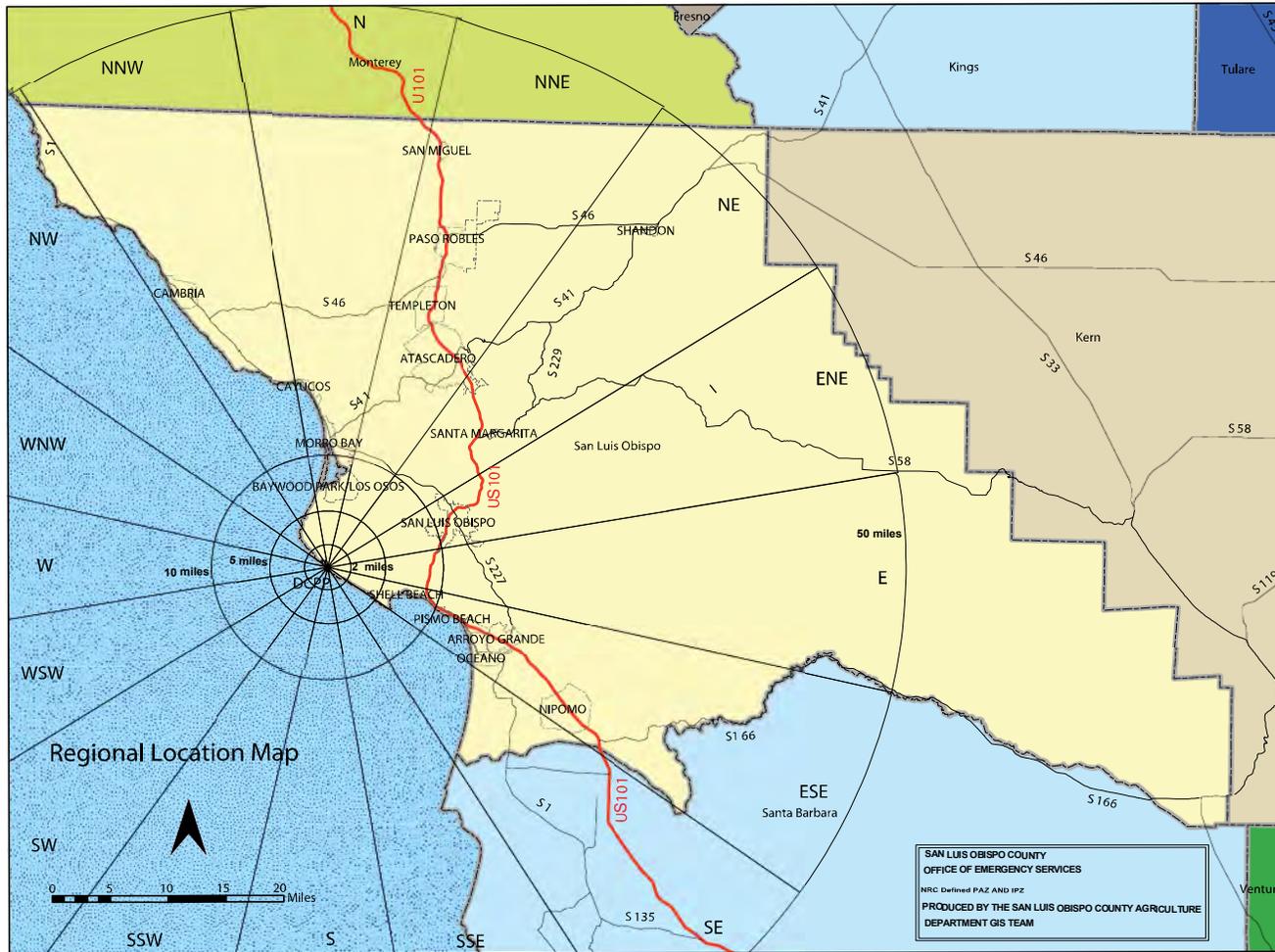
**FIGURE 2.1: REGIONAL LOCATION MAP**



**FIGURE 3.1.1: NRC-DEFINED EMERGENCY PLANNING ZONES (EPZ)  
 PLUME EPZ in SECTORS**



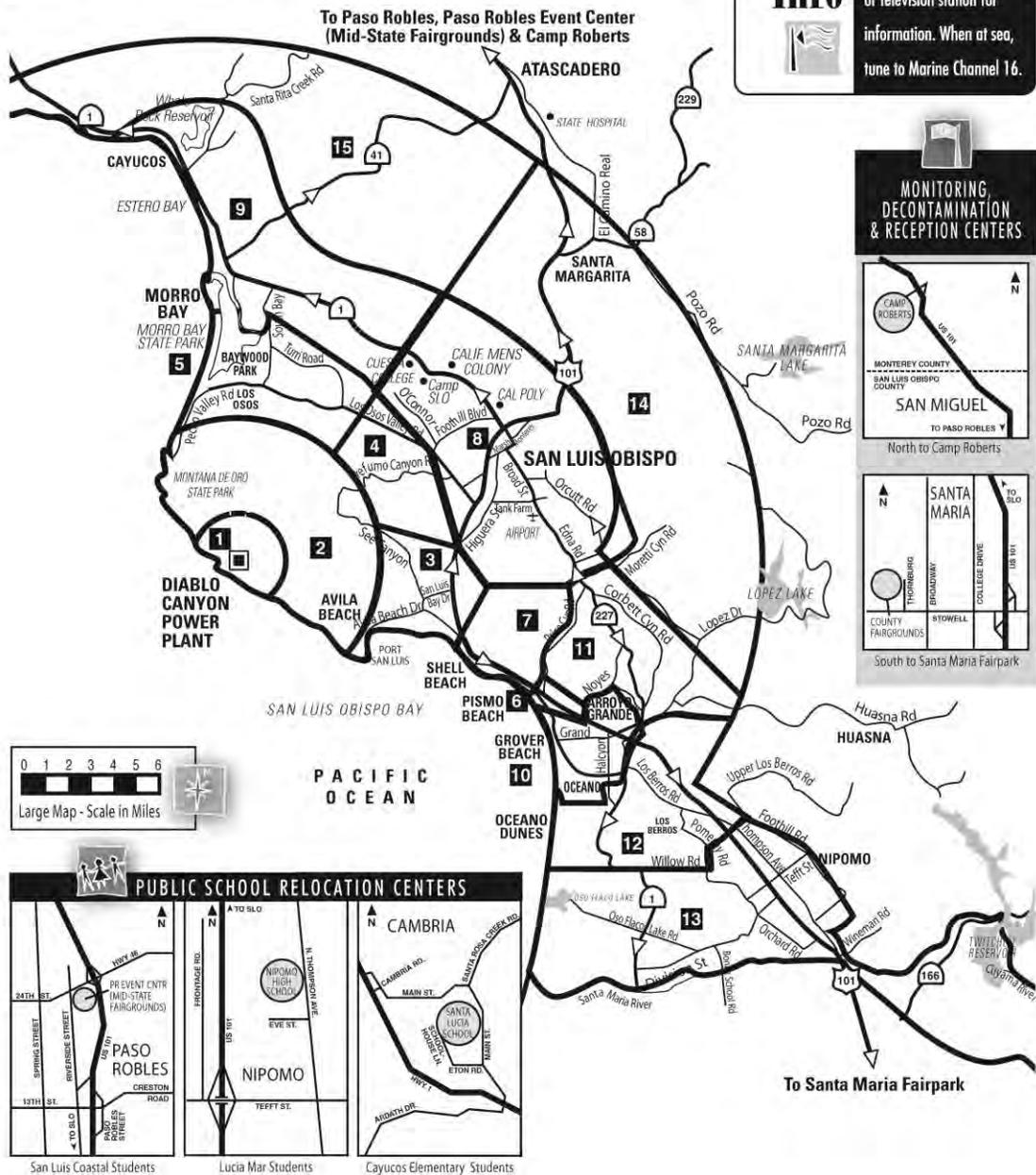
**FIGURE 3.1.2: NRC-DEFINED PROTECTIVE ACTION ZONE AND INGESTION PATHWAY ZONE (IPZ)**



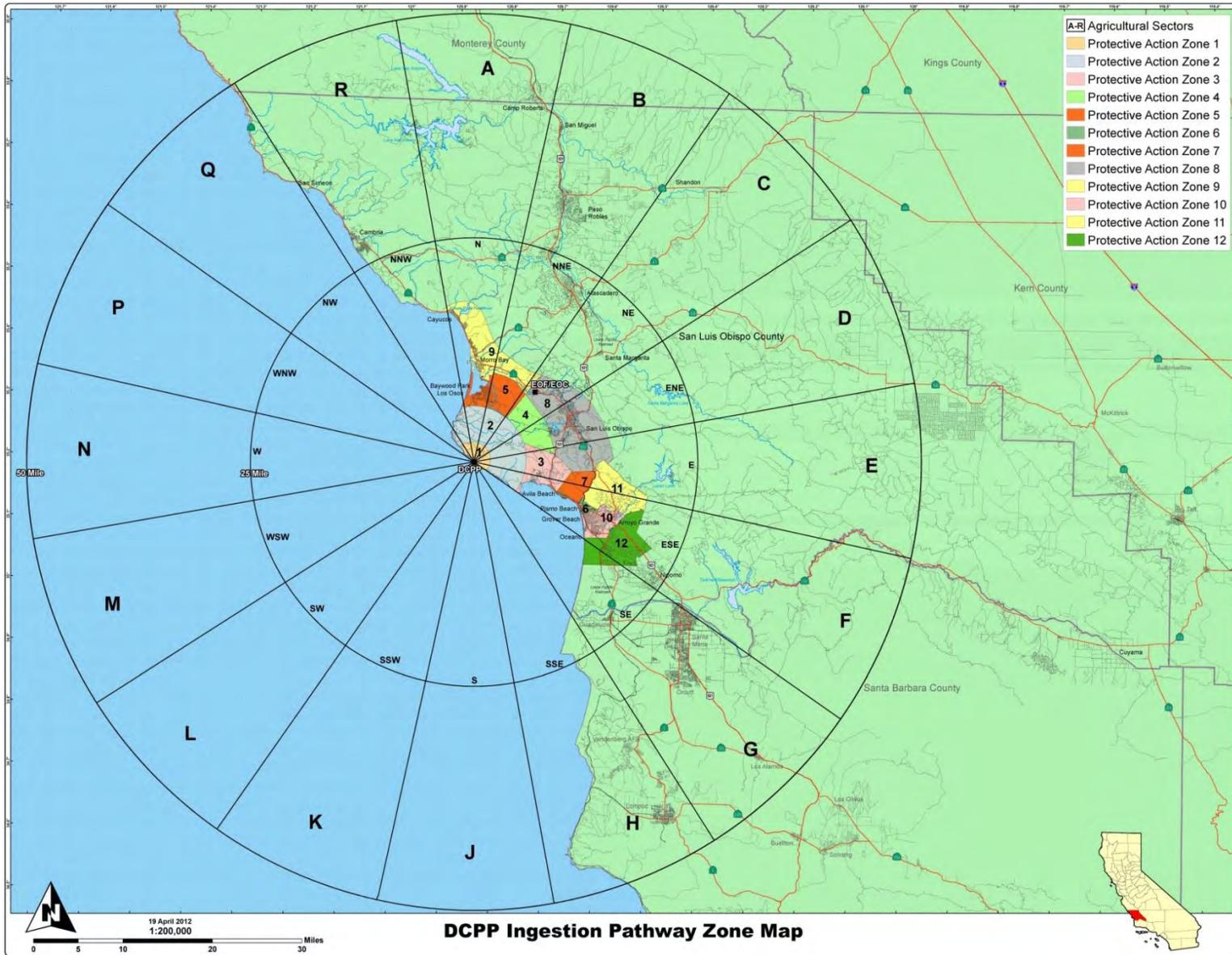
**FIGURE 3.2: STATE OF CALIFORNIA DEFINED EMERGENCY PLANNING ZONE and PUBLIC EDUCATION ZONE**

**EMERGENCY PLANNING ZONE**

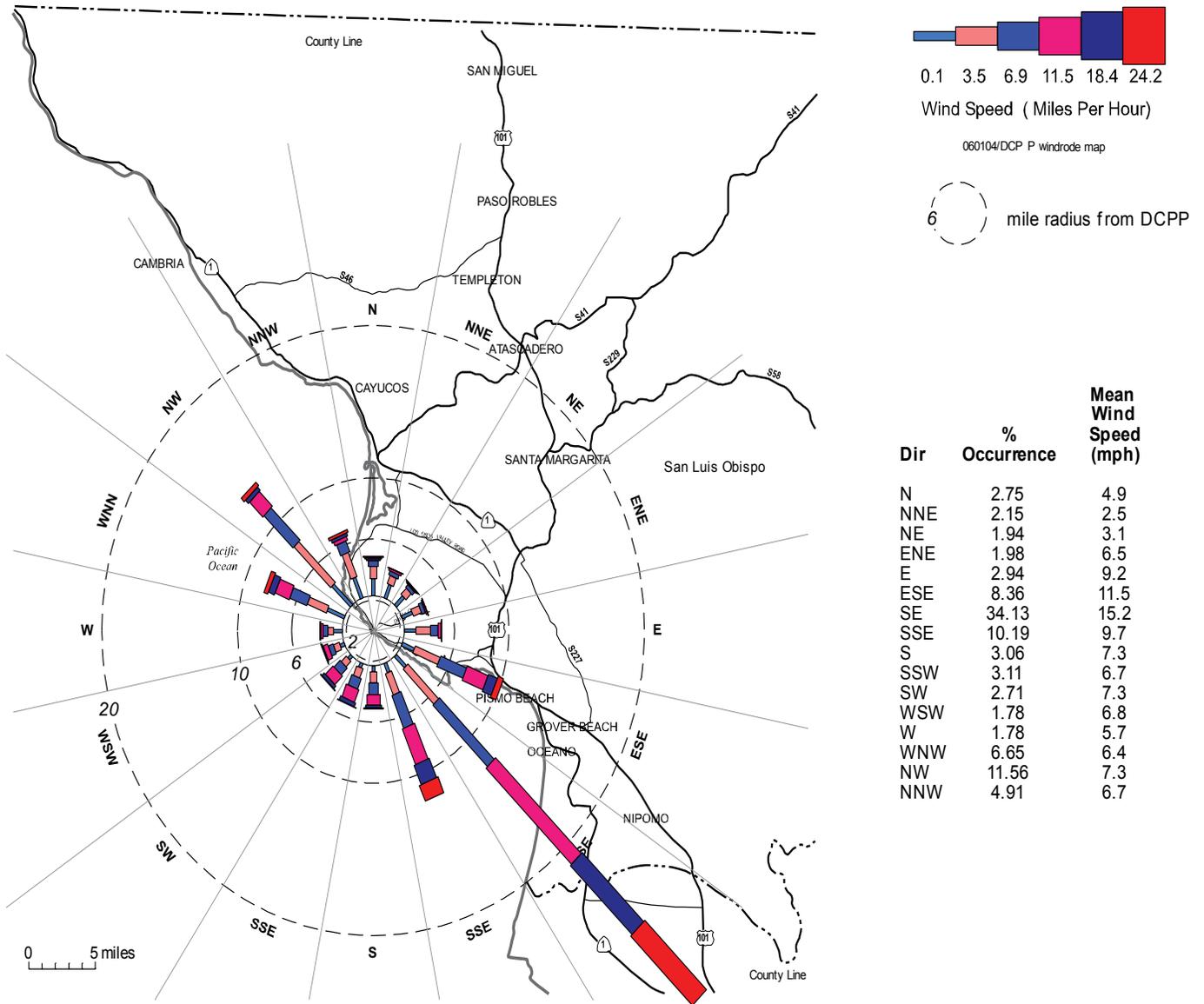
Protective Action Zone (PAZ) 1-12, Public Education Zone (PEZ) 13-15  
 Monitoring, Decontamination and Reception Centers & Public School Relocation Centers



**FIGURE 3.3: INGESTION PATHWAY ZONE MAP**

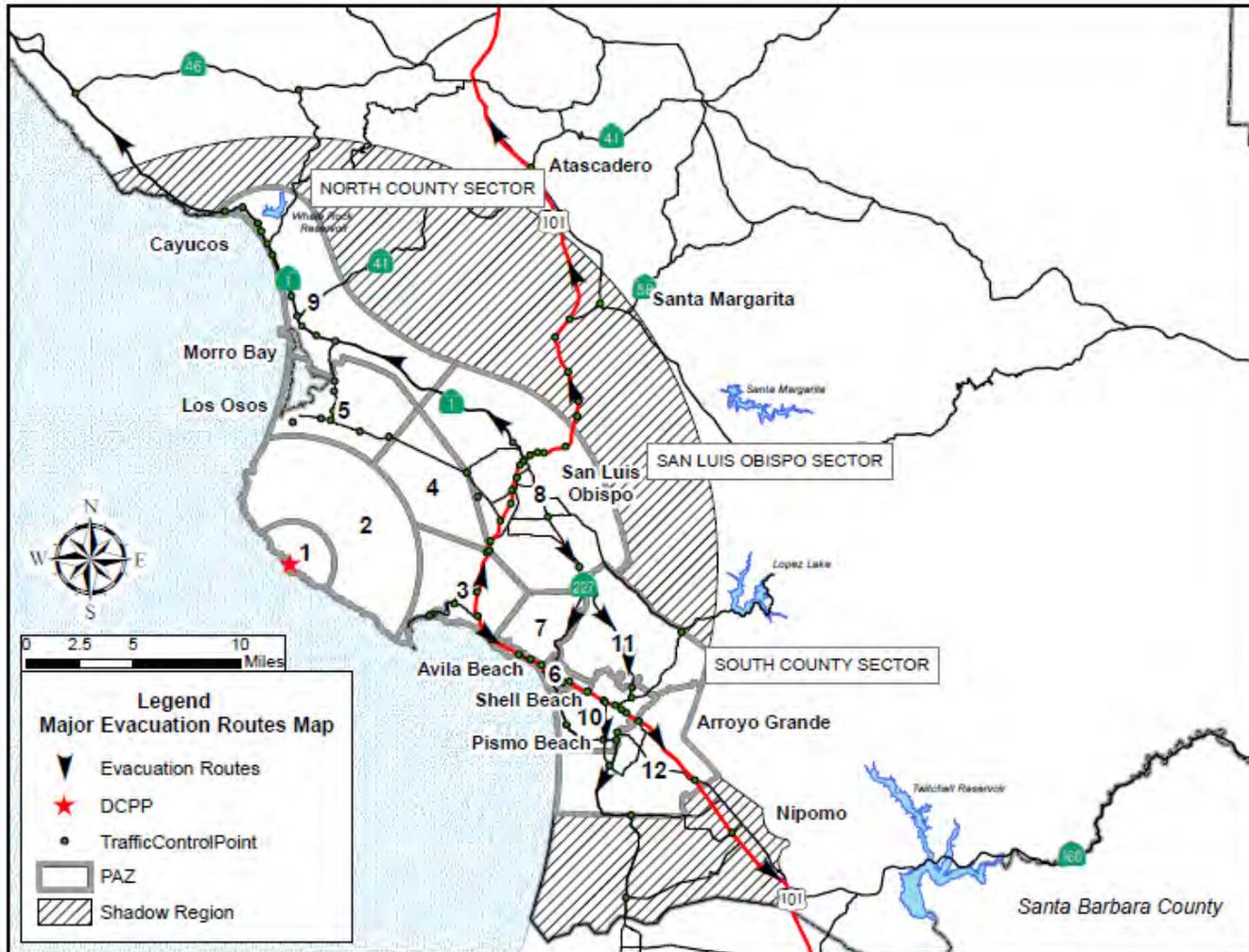


**FIGURE 3.4: WIND SPEED AND DIRECTION**



Source: PG&E wind rose Map

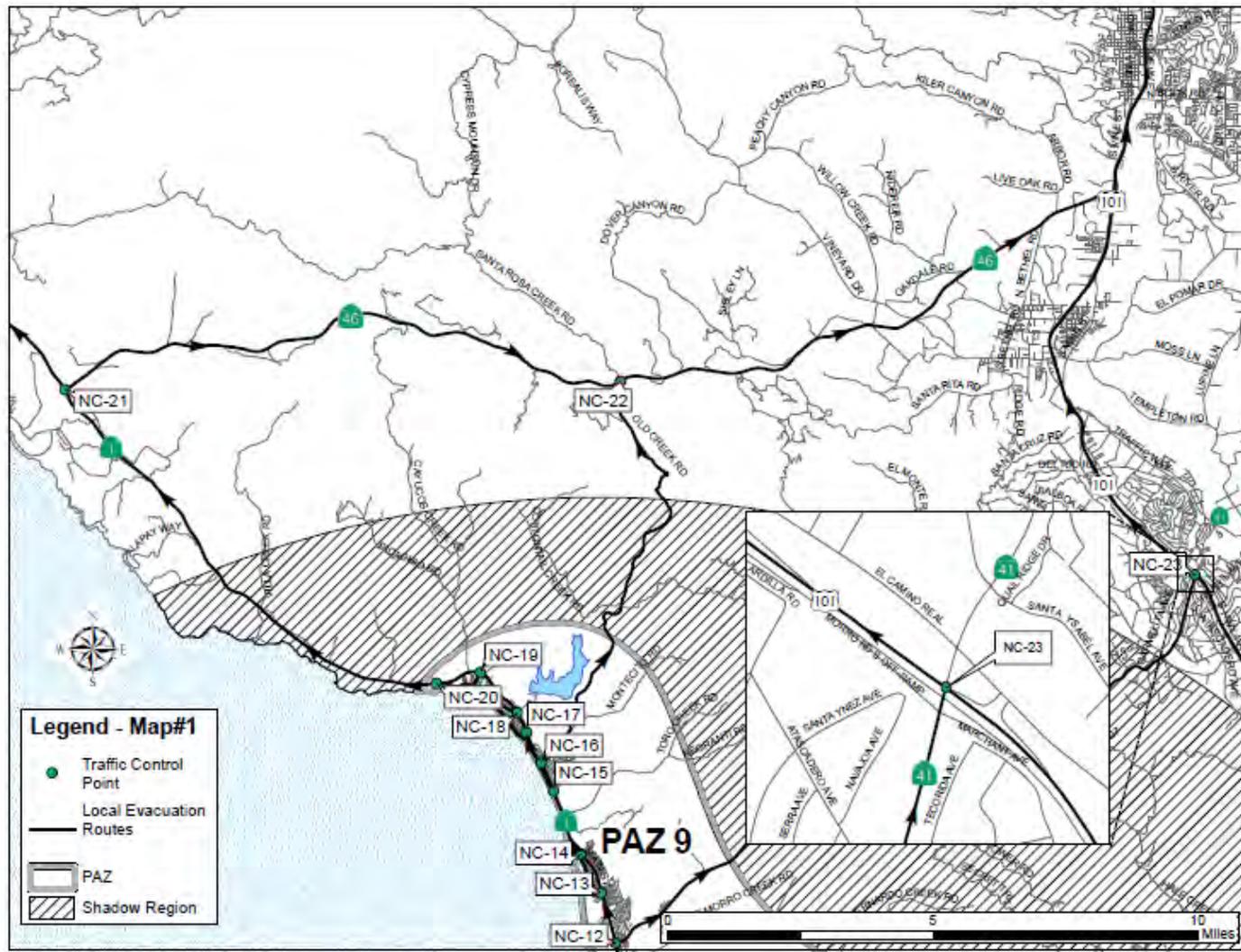
FIGURE 3.5: MAJOR EVACUATION ROUTES



**FIGURE 3.6: LOCAL EVACUATION ROUTES**

(Page 1 of 13)

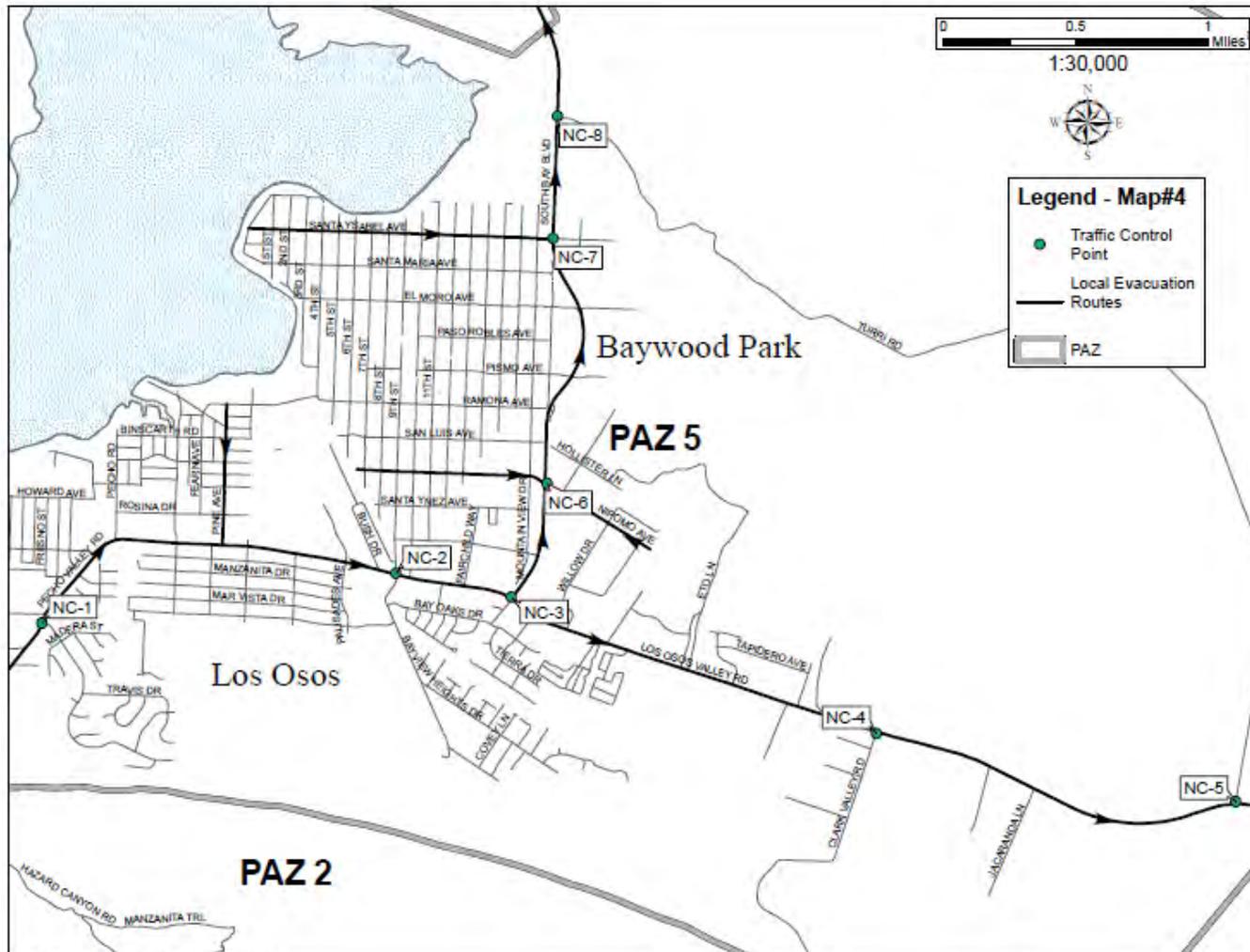
MAP 1





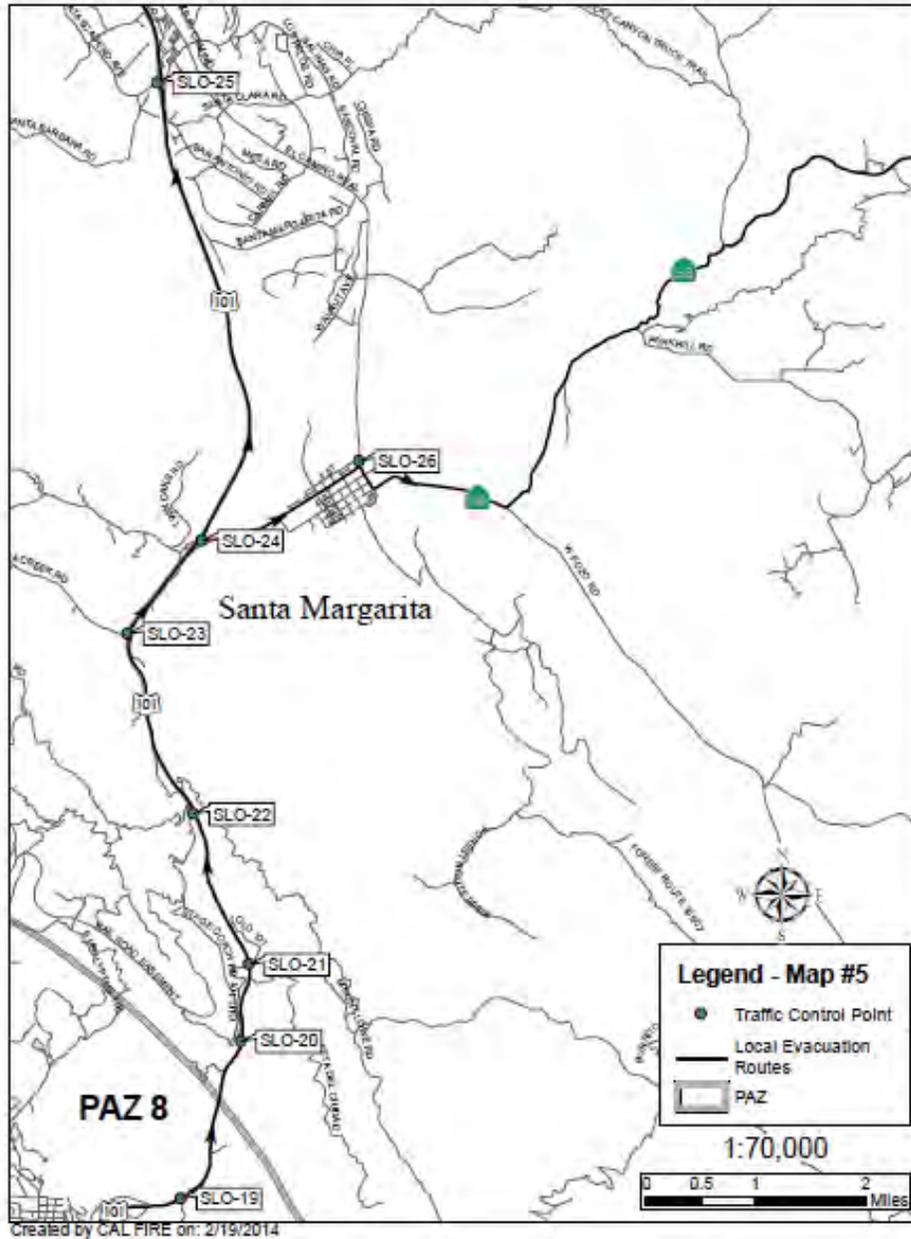


**FIGURE 3.6 CONT: LOCAL EVACUATION ROUTES**  
**(Page 4 of 13)**  
**MAP 4**

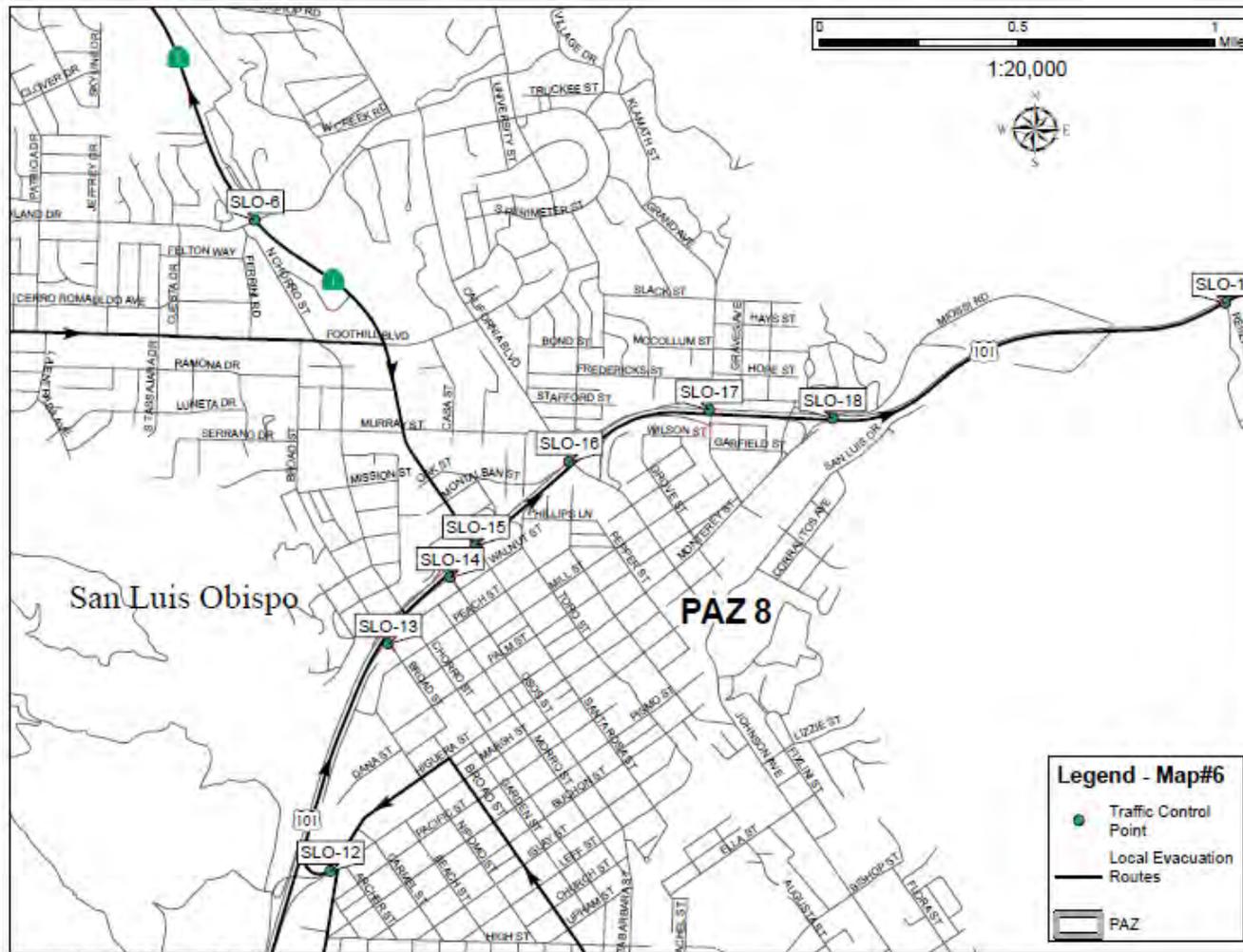


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**FIGURE 3.6 CONT: LOCAL EVACUATION ROUTES**  
**(Page 5 of 13)**  
**MAP 5**

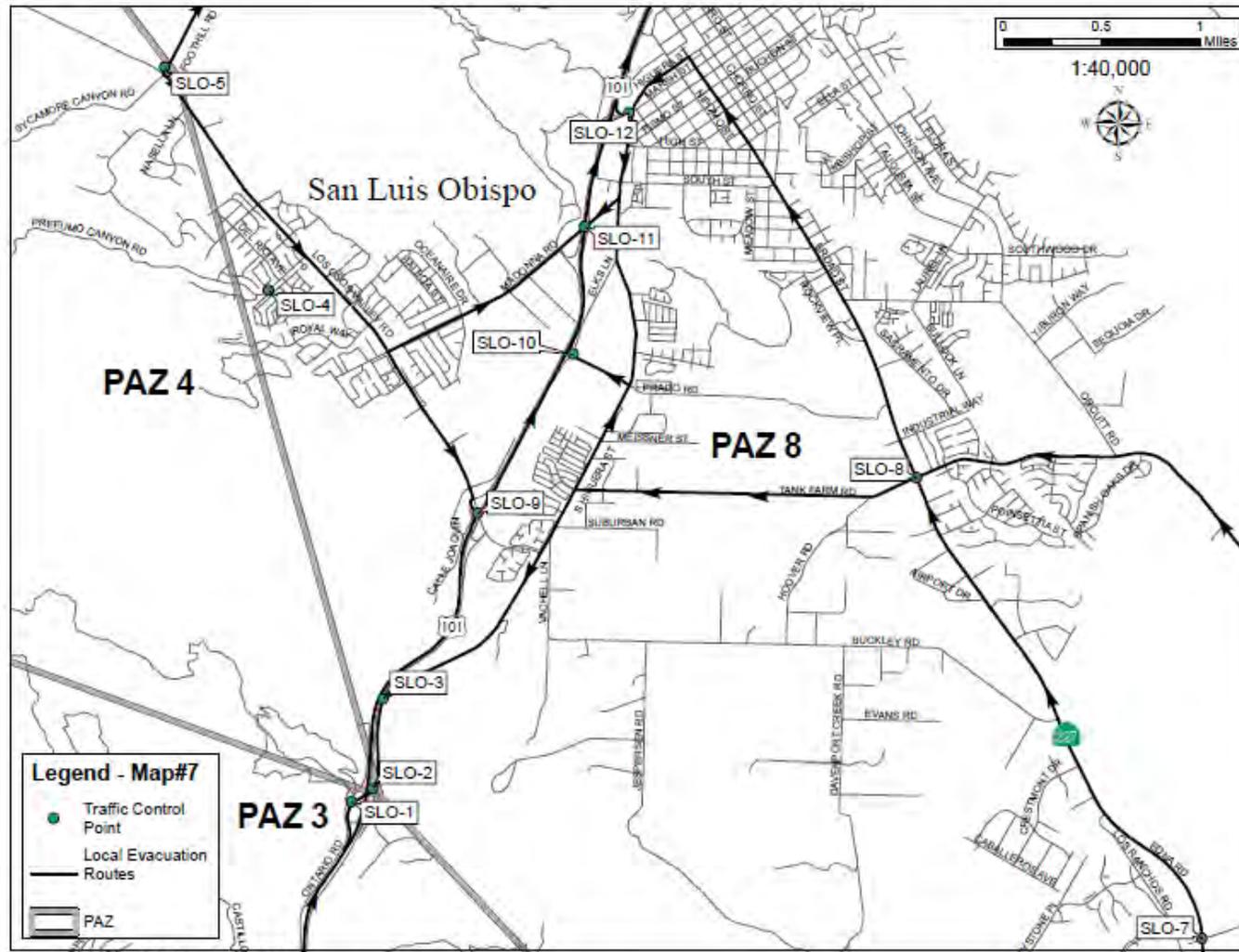


**FIGURE 3.6 CONT: LOCAL EVACUATION ROUTES**  
**(Page 6 of 13)**  
**MAP 6**

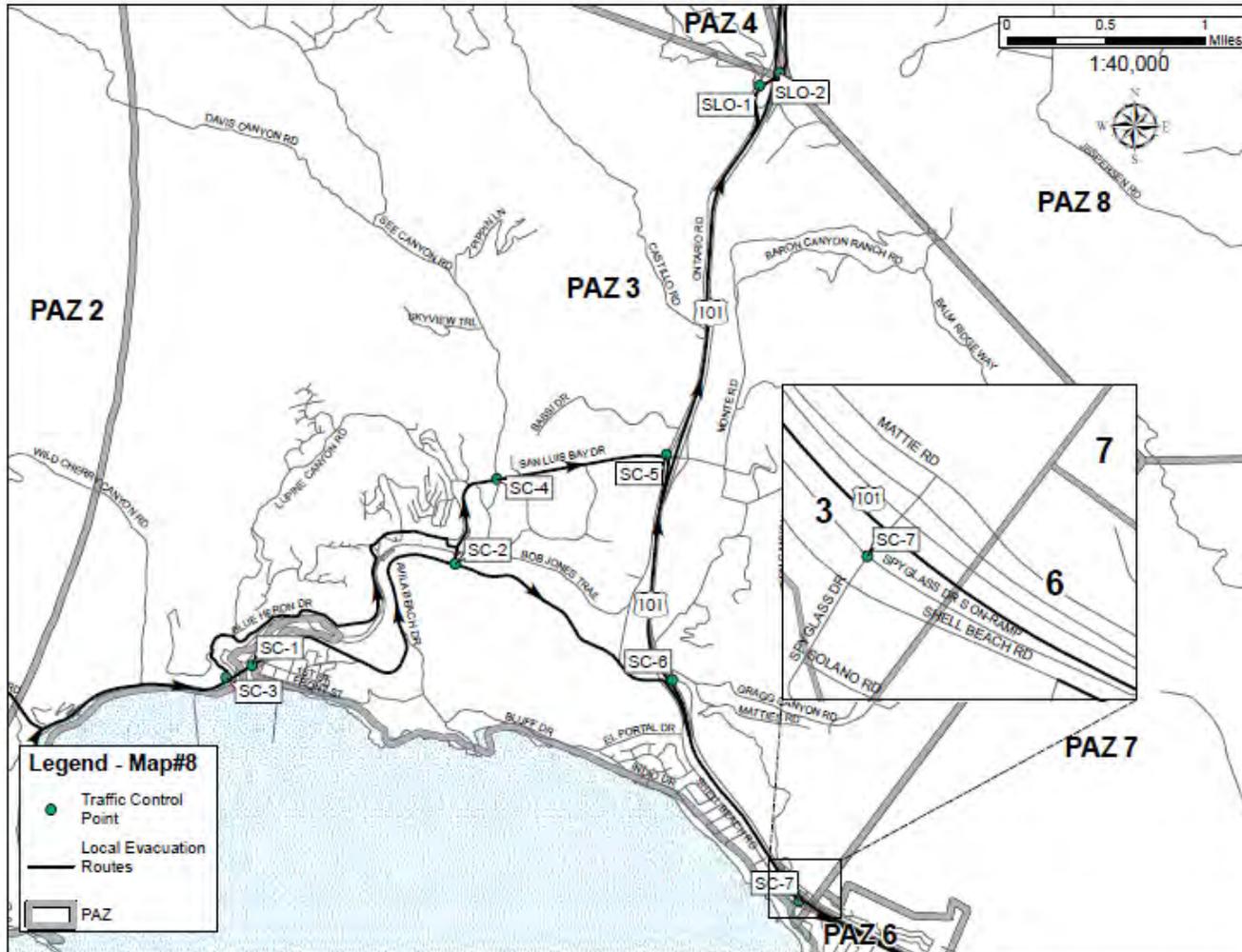


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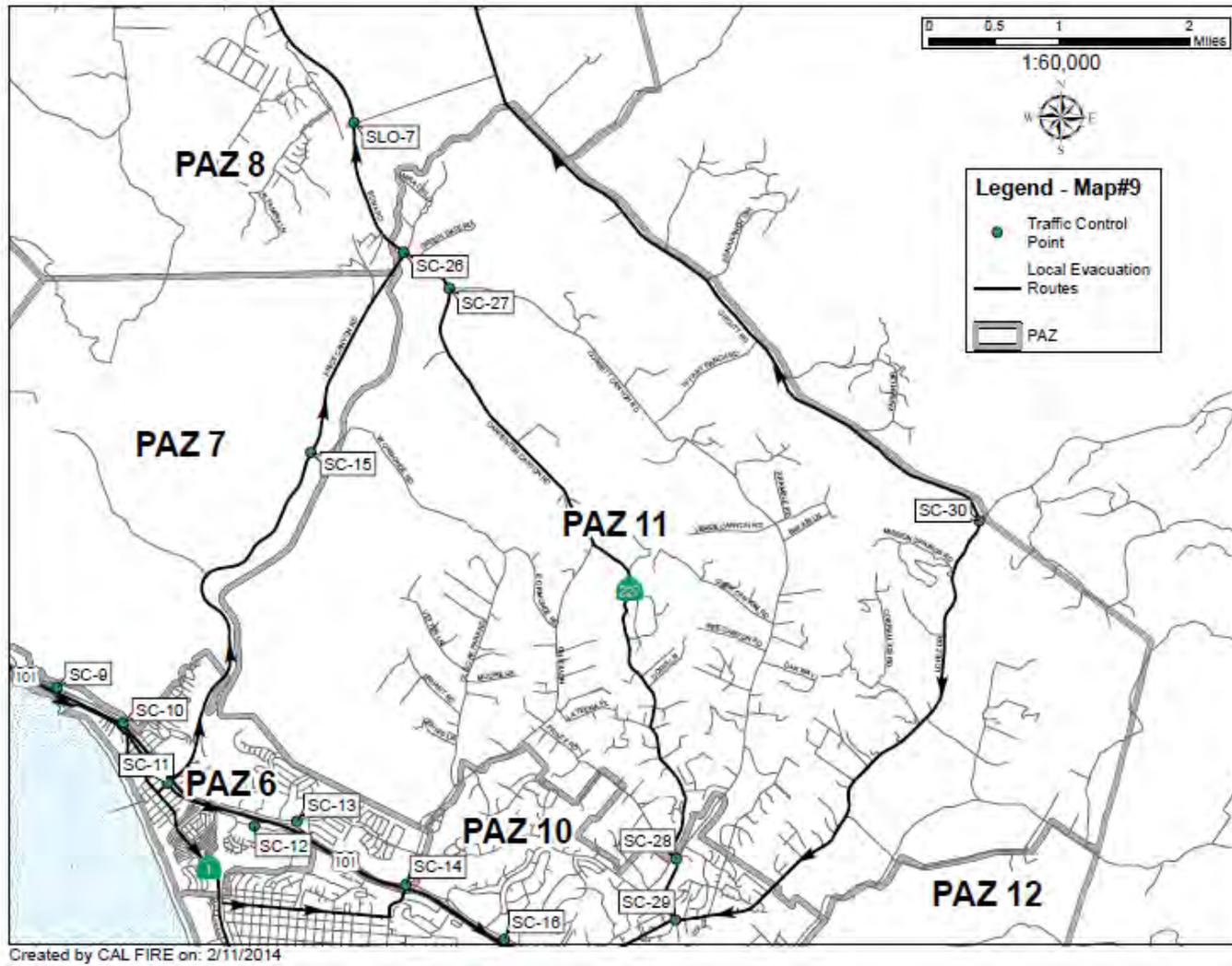
**FIGURE 3.6 CONT: LOCAL EVACUATION ROUTES**  
(Page 7 of 13)  
**MAP 7**



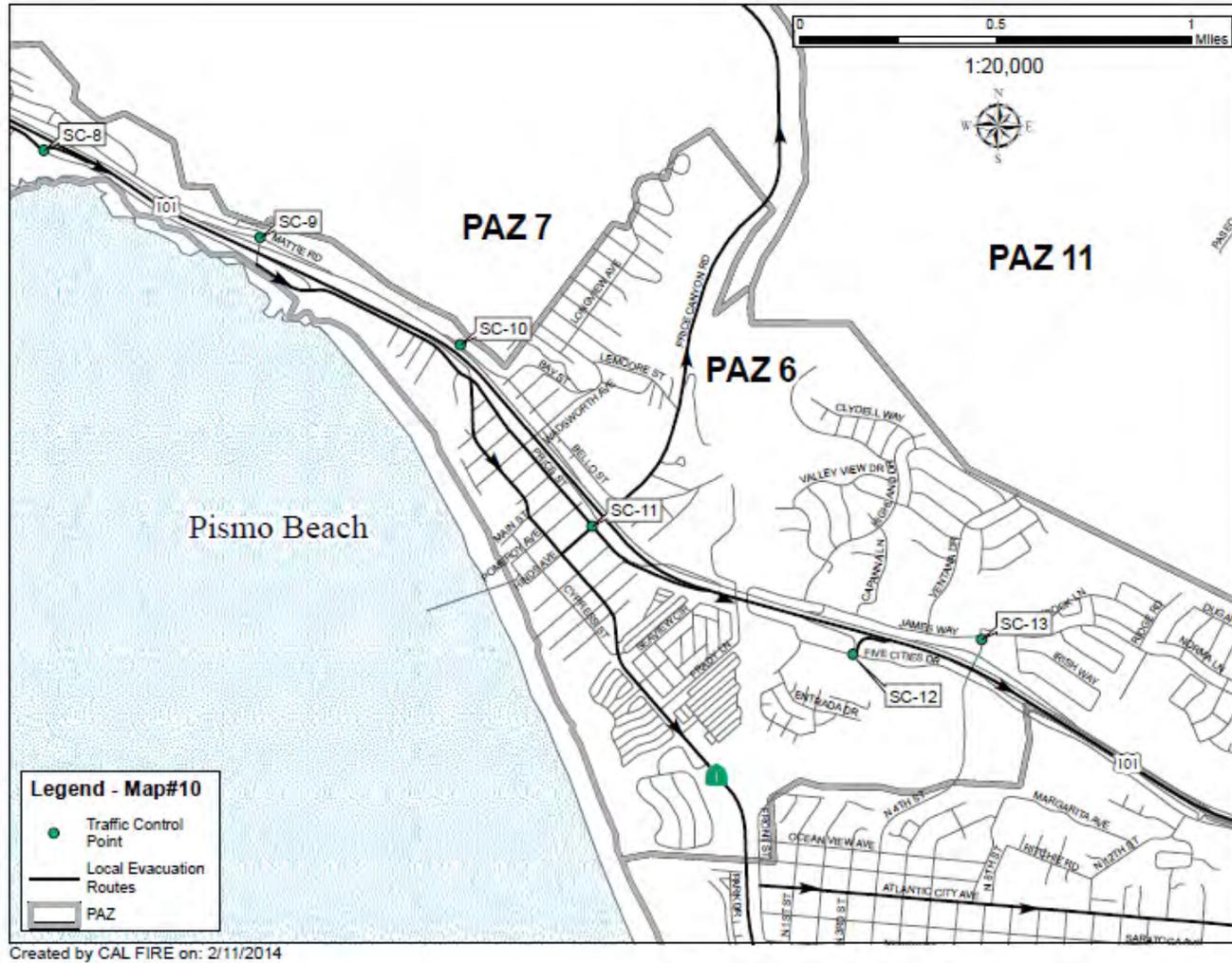
**FIGURE 3.6 CONT: LOCAL EVACUATION ROUTES**  
(Page 8 of 13)  
**MAP 8**



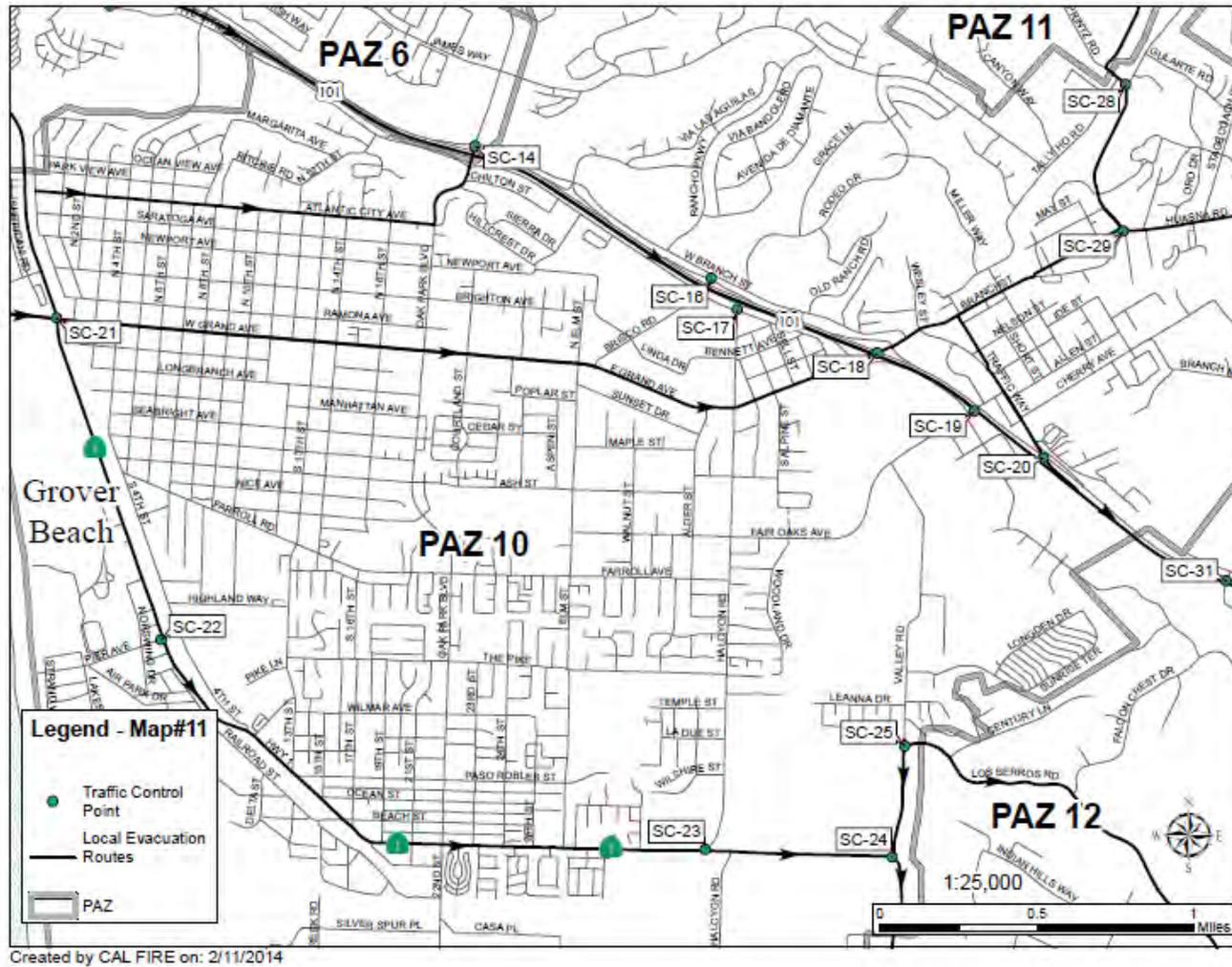
**FIGURE 3.6 CONT: LOCAL EVACUATION ROUTES**  
(Page 9 of 13)  
**MAP 9**



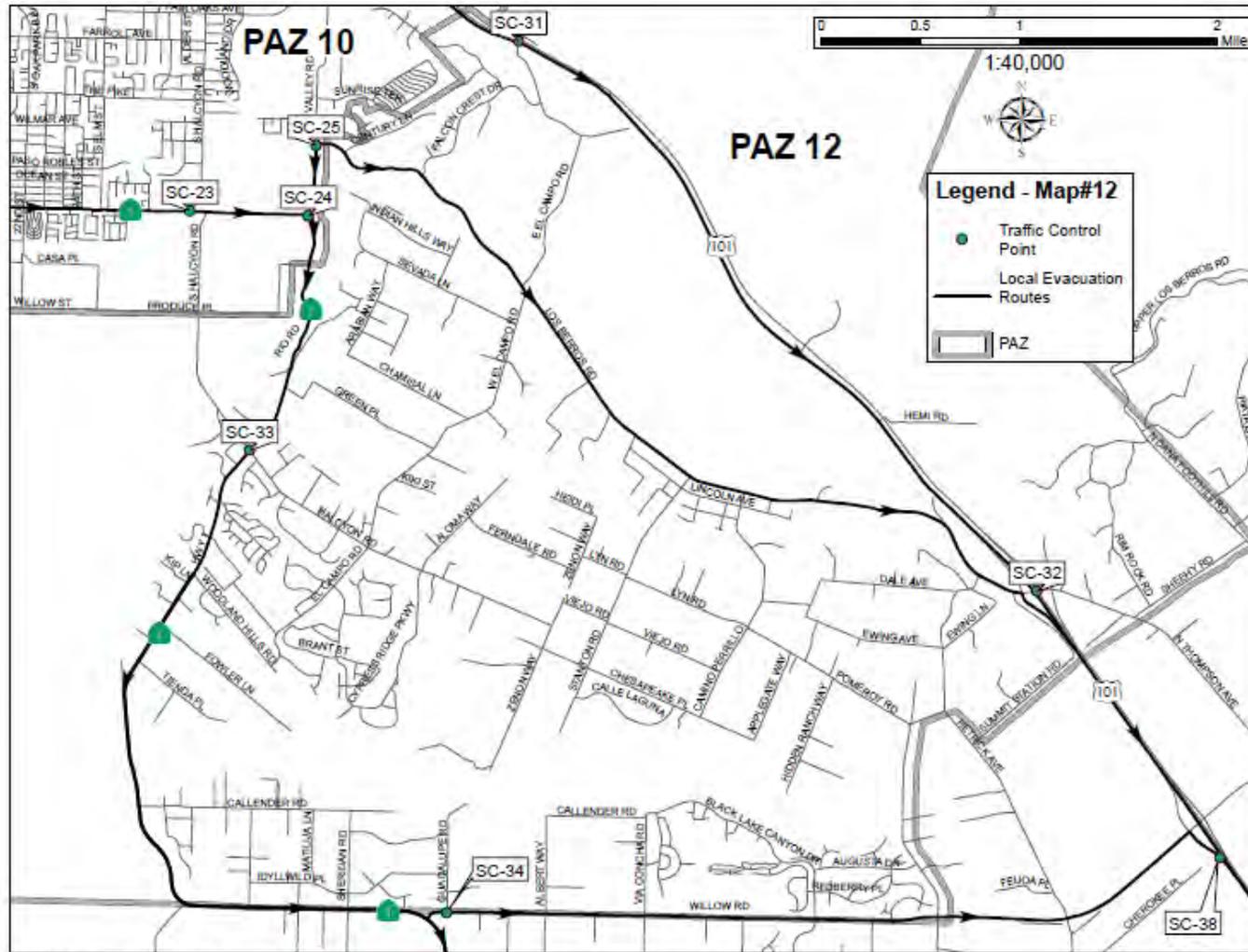
**FIGURE 3.6 CONT: LOCAL EVACUATION ROUTES**  
**(Page 10 of 13)**  
**MAP 10**



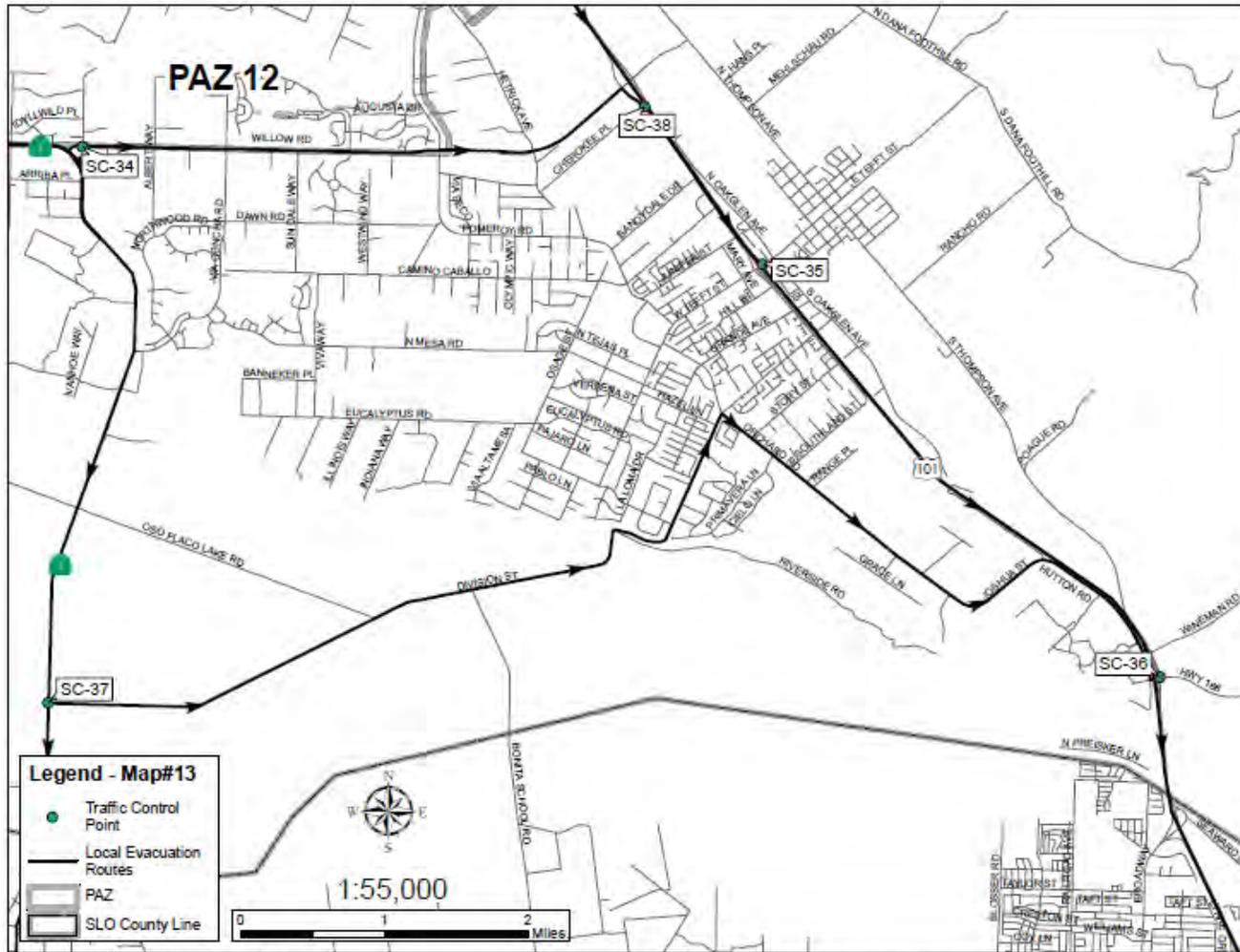
**FIGURE 3.6: LOCAL EVACUATION ROUTES**  
(Page 11 of 13)  
**MAP 11**



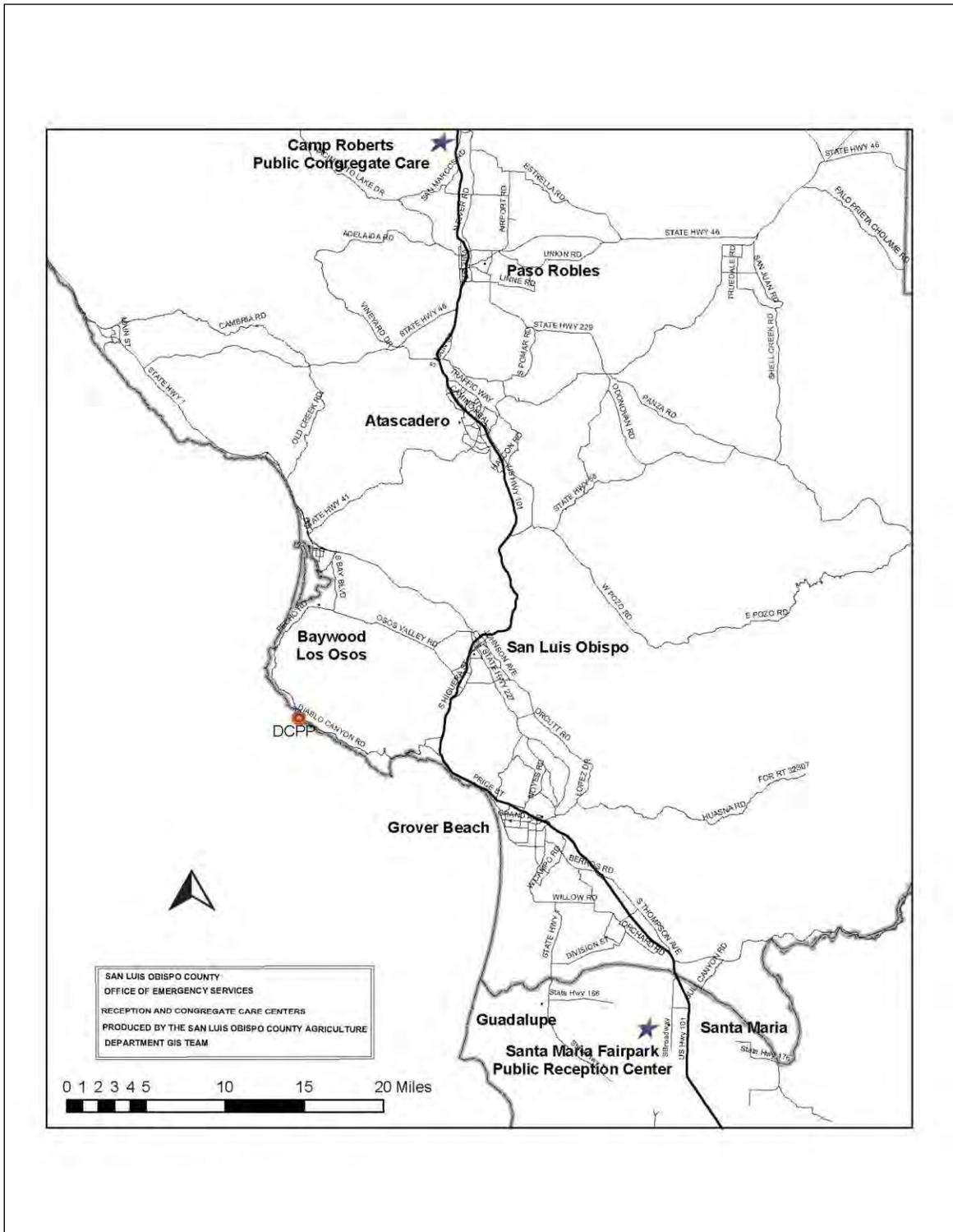
**FIGURE 3.6 CONT: LOCAL EVACUATION ROUTES**  
**(Page 12 of 13)**  
**MAP 12**



**FIGURE 3.6 CONT: LOCAL EVACUATION ROUTES**  
**(Page 13 of 13)**  
**MAP 13**



**FIGURE 3.7: LOCAL EVACUATION ROUTES FOR RECEPTION AND CONGREGATE CARE CENTERS**



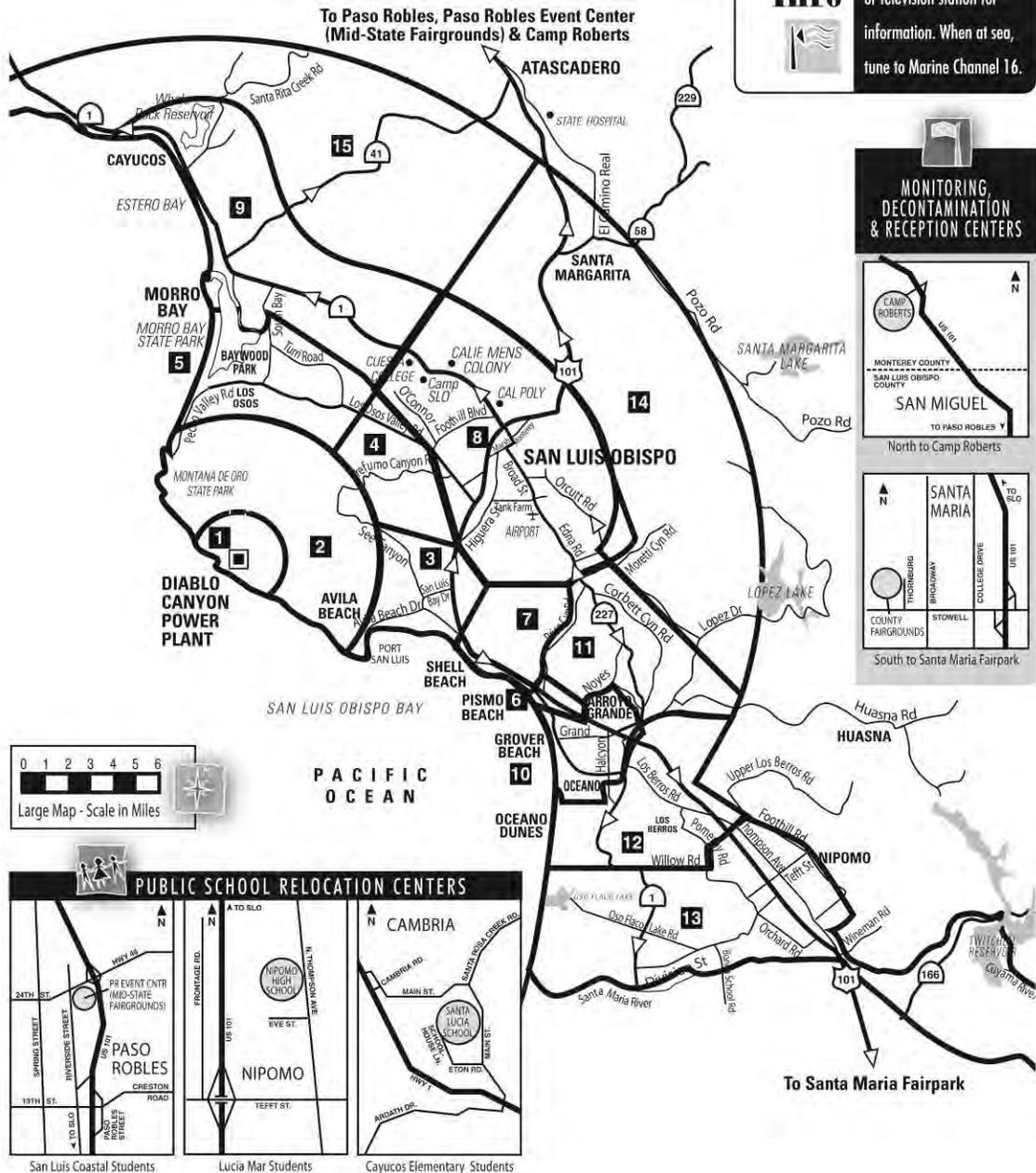
**FIGURE 3.8: LOCAL EVACUATION ROUTES PUBLIC SCHOOL RELOCATION CENTERS**

**EMERGENCY PLANNING ZONE**

Protective Action Zone (PAZ) 1-12, Public Education Zone (PEZ) 13-15  
Monitoring, Decontamination and Reception Centers & Public School Relocation Centers

**Siren Info**

If you hear a steady siren 3 - 5 minutes, go indoors and tune to a local radio or television station for information. When at sea, tune to Marine Channel 16.

**FIGURE 3.9: GRAPHICAL DEPICTION OF KEY EVACUATION  
(Page 1 of 2)  
DAYTIME RESPONSE**

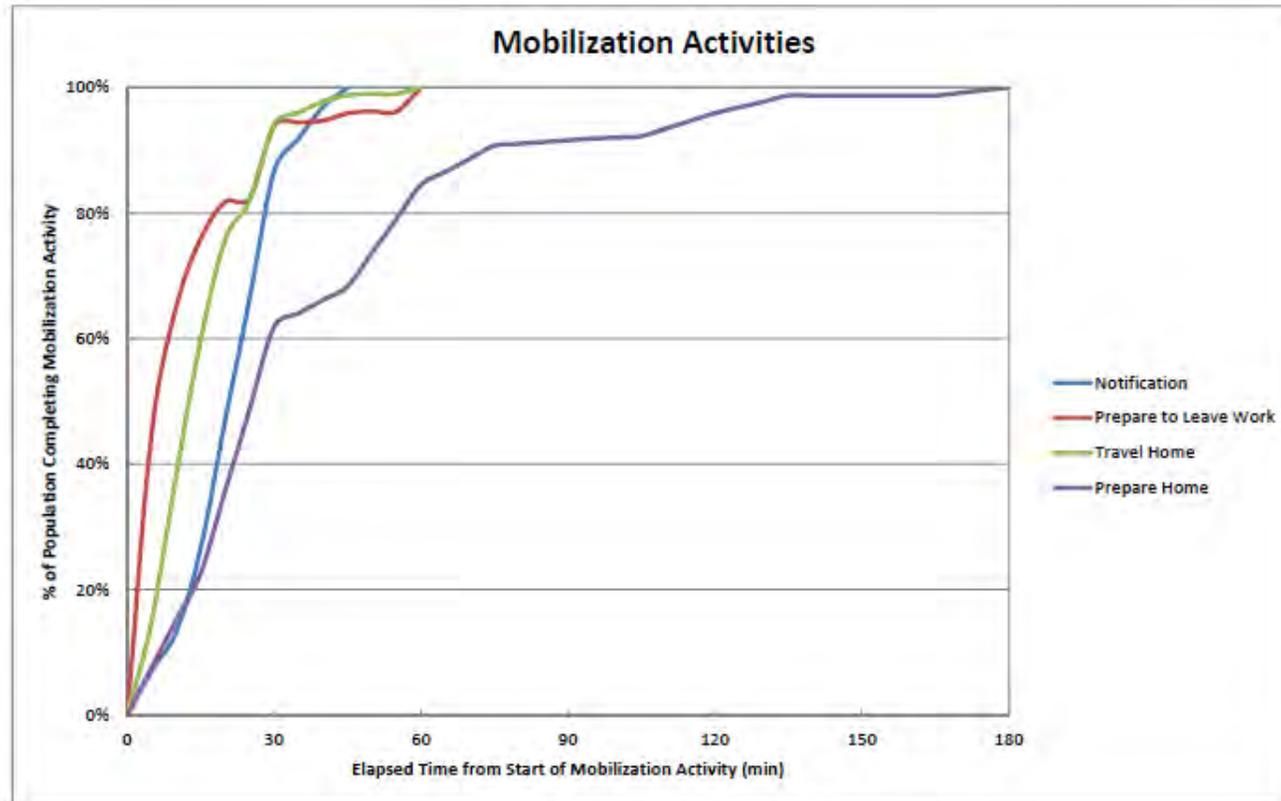


Figure S-2. Evacuation Mobilization Activities

**FIGURE 3.9 CONT: GRAPHICAL DEPICTION OF KEY EVACUATION  
(Page 2 of 2)  
NIGHTTIME RESPONSE**

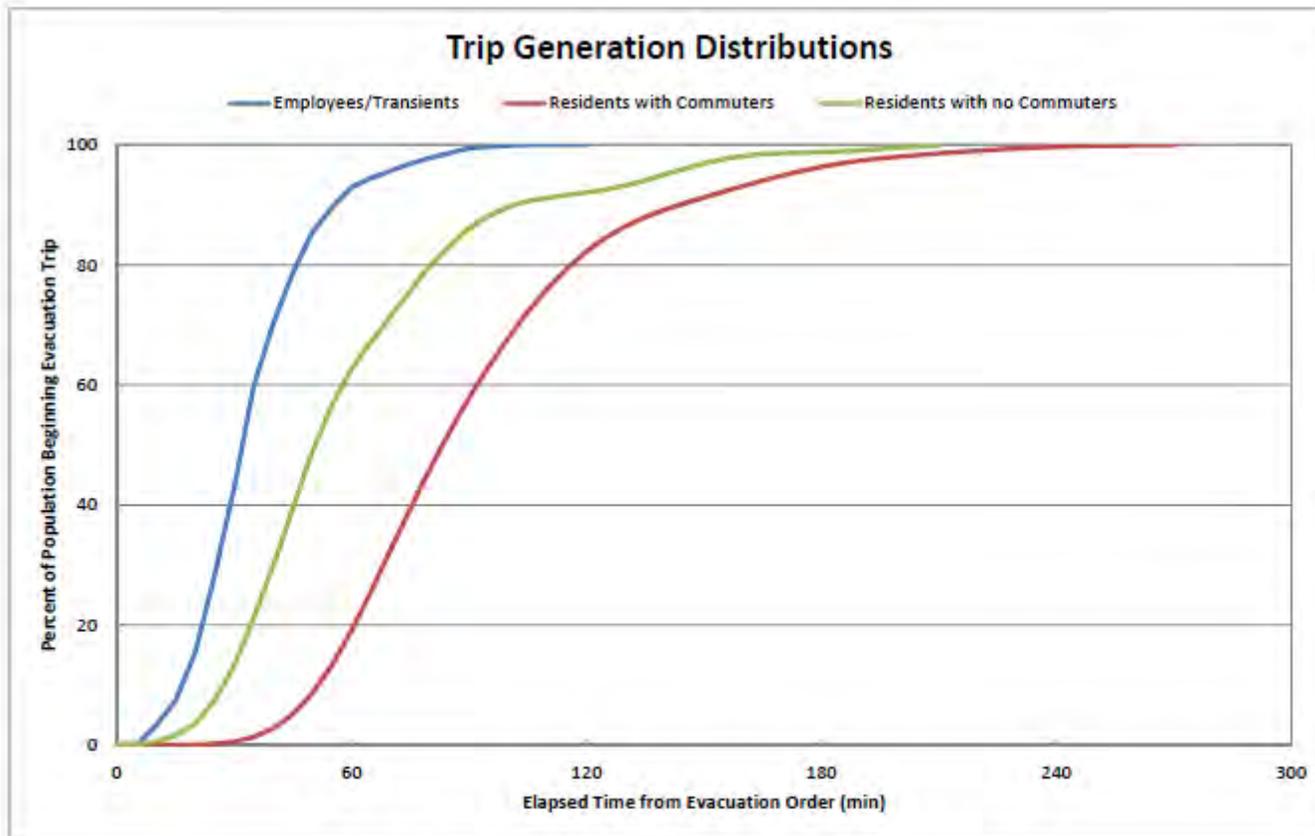
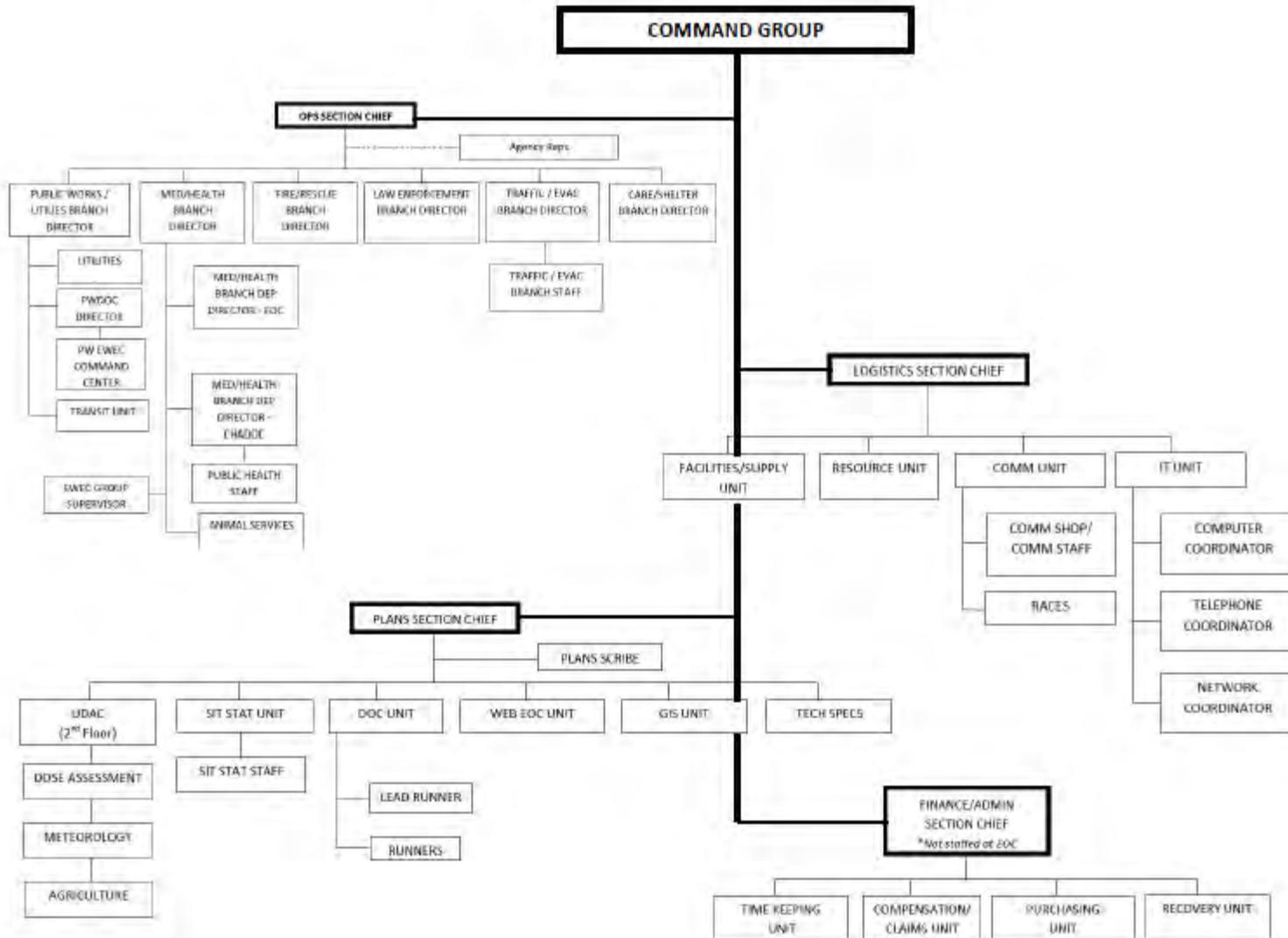
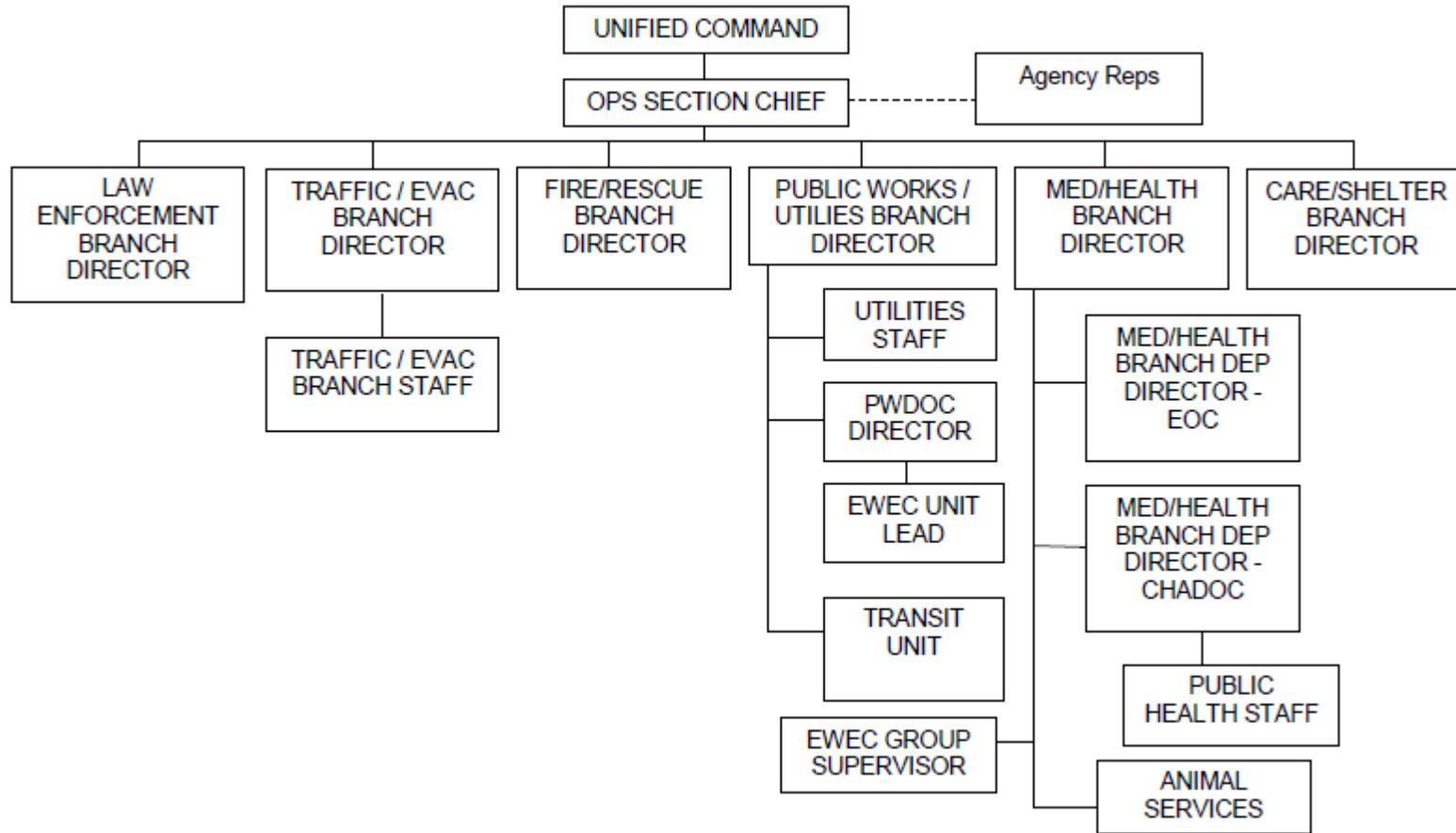


Figure 5-4. Comparison of Trip Generation Distributions

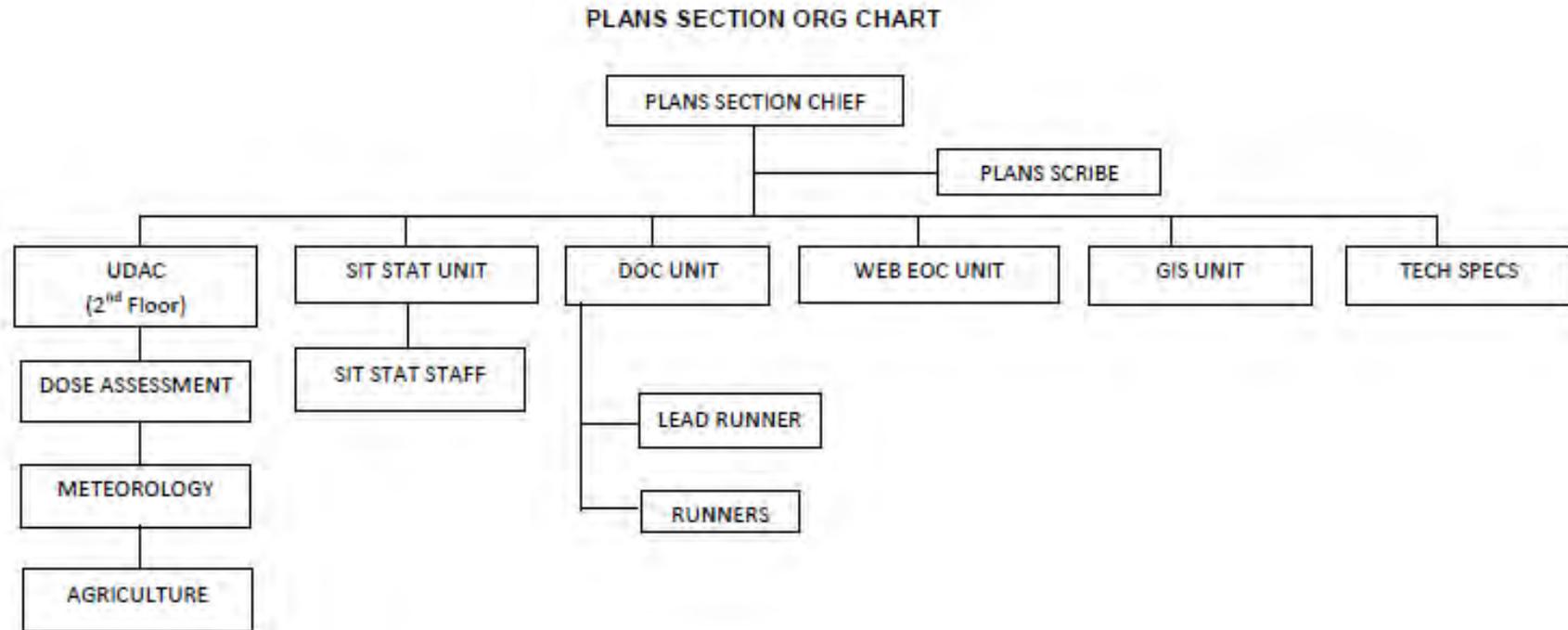
**FIGURE 4.1.1: COUNTY EMERGENCY ORGANIZATION**



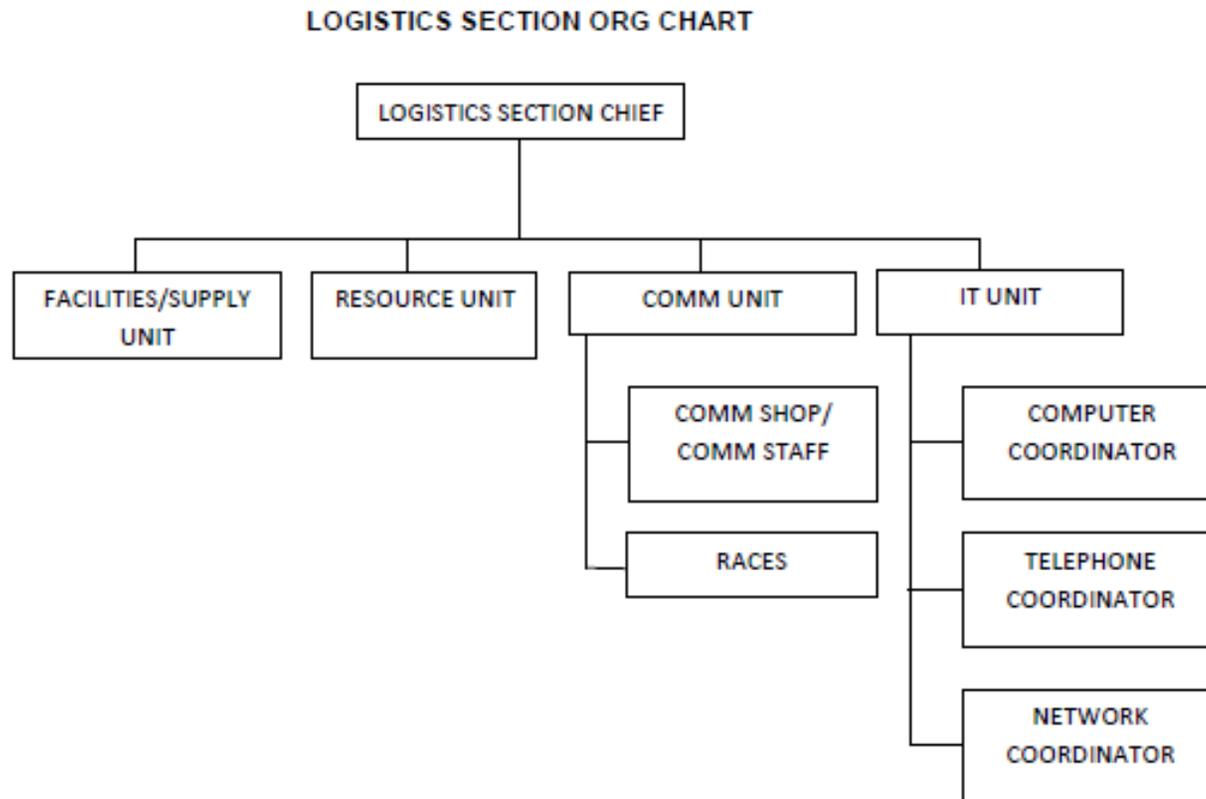
**FIGURE 4.1.2: COUNTY EMERGENCY ORGANIZATION – OPERATIONS SECTION**



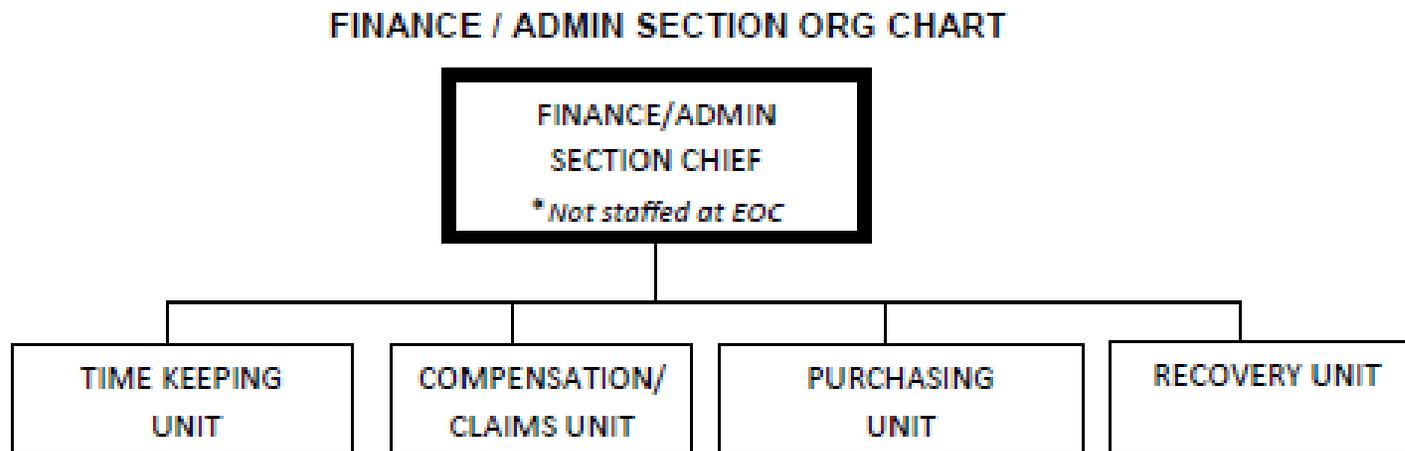
**FIGURE 4.1.3: COUNTY EMERGENCY ORGANIZATION – PLANS SECTION**



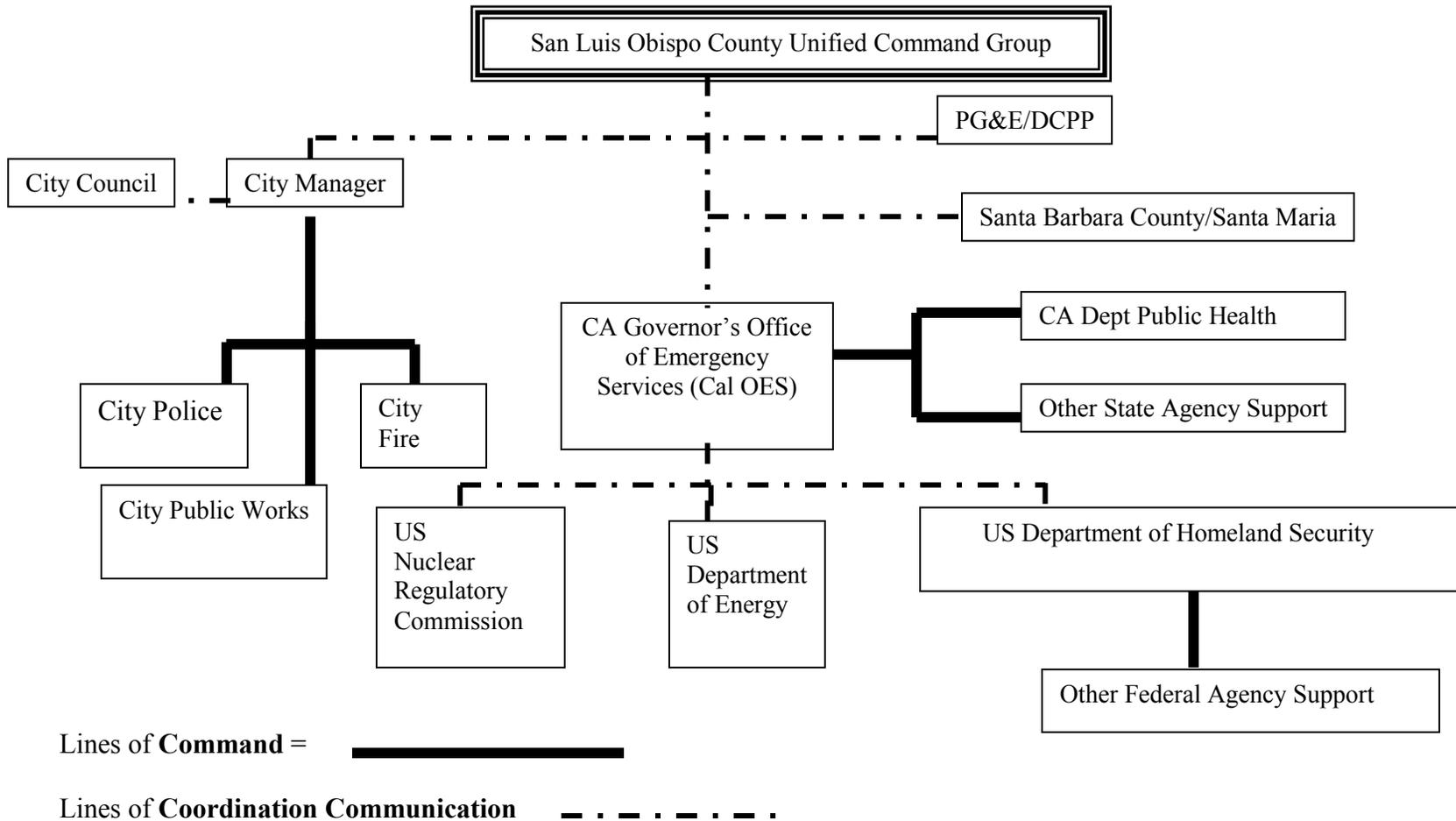
**FIGURE 4.1.4: COUNTY EMERGENCY ORGANIZATION – LOGISTICS SECTION**



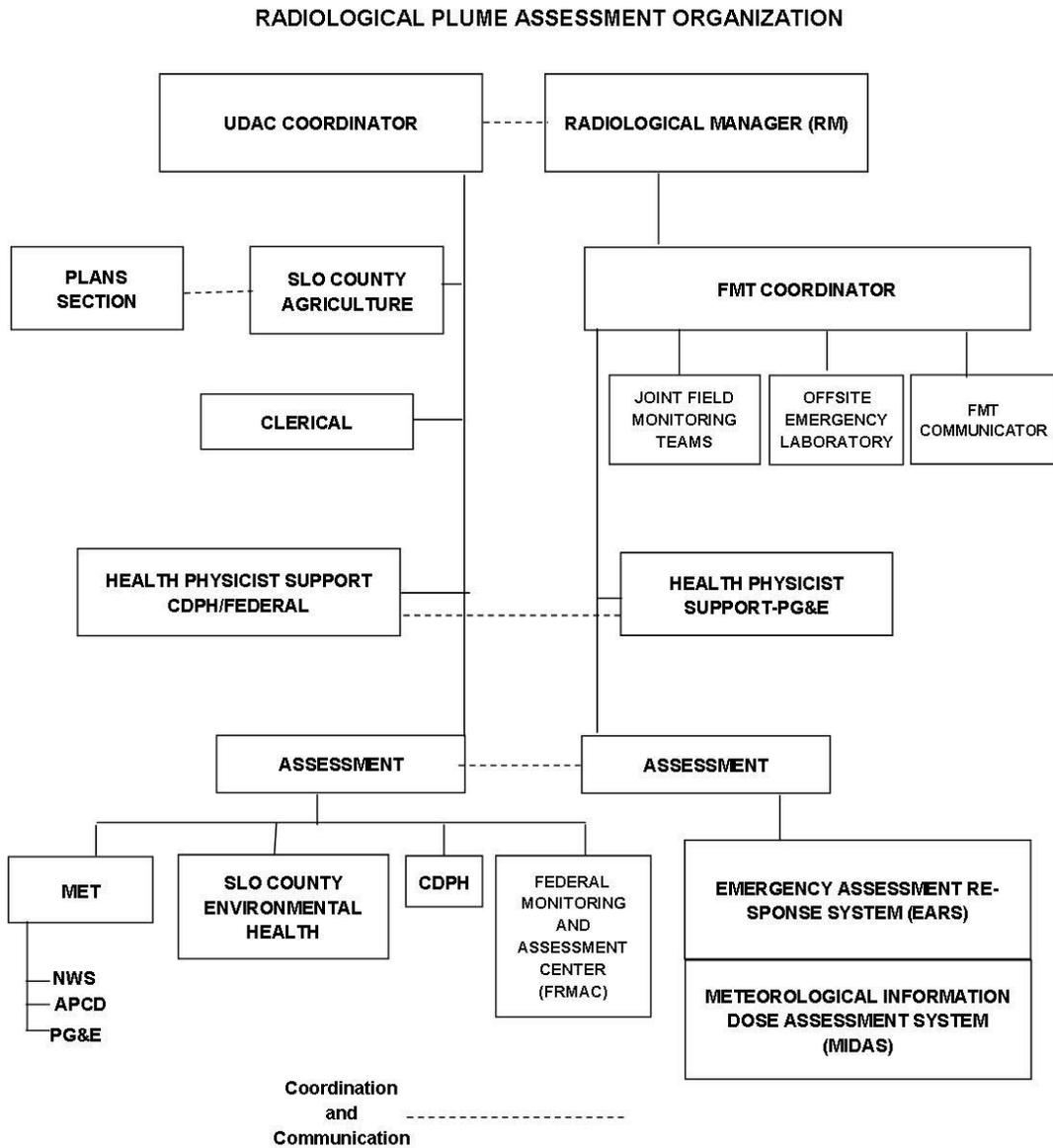
**FIGURE 4.1.5: COUNTY EMERGENCY ORGANIZATION – FINANCE AND ADMINISTRATION SECTION**



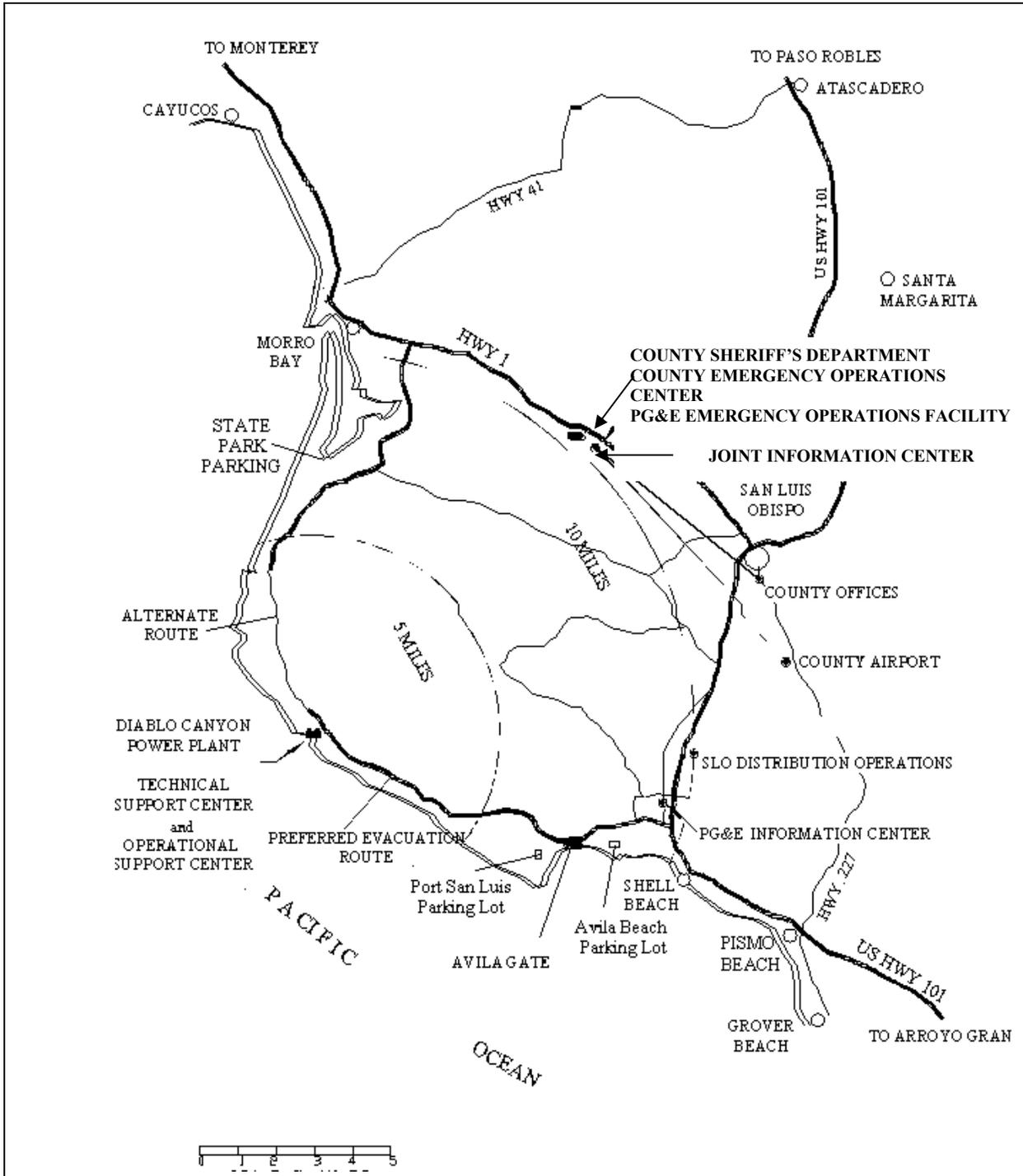
**FIGURE 4.2: INTERAGENCY EMERGENCY COMMUNICATION**



**FIGURE 5.1: RADIOLOGICAL PLUME ASSESSMENT ORGANIZATION**



**FIGURE 5.2: EVACUATION ROUTE FROM DIABLO CANYON POWER PLANT**  
**Evacuation Routes for DCPD Onsite Personnel**



Scale in Miles

Source: DCPD Emergency Planning 2006

**TABLE 2.1: RELATIONSHIP OF WHOLE BODY DOSE TO HEALTH EFFECTS**

<u>Nature of</u>	Representative Absorbed Dose of Whole Body (REM)
Minimal dose detectable by chromosome analysis or other specialized analyses, but not by hemogram	5-25 <sup>25</sup>
Minimal acute dose readily detectable in a specific individual (e.g., one who presents himself as a possible exposure case)	50-75 <sup>1</sup>
Minimal acute dose likely to produce vomiting in about 10 percent of people so exposed	75-125 <sup>1</sup>
Acute dose likely to produce transient disability and clear hematological changes in a majority of people so exposed	150-200 <sup>1</sup>
Median lethal dose for single short exposure, no medical treatment	300 <sup>1</sup>
Median lethal dose for a single short exposure with supportive medical treatment (e.g., antibiotics and whole blood and platelet transfusions)	510 <sup>26</sup>

<sup>25</sup> Source: Basic Radiation Protection Criteria, National Council on Radiation Protection and Measurements, NCRP Report No. 39, January 1971 and NCRP Report No, 91, June 1987.

<sup>26</sup> Source: Reactor Safety Study: An Assessment of Risks in U.S. Commercial Nuclear Power Plants, (WASH-1400, NUREG 75/014) U.S. Nuclear Regulatory Commission, October 1975

**TABLE 2.2: RADIATION EXPOSURE CRITERIA**

**GENERAL POPULATION**

Protective Action Guides <sup>27</sup> (PAGs)

Total Effective Dose Equivalent (TEDE): 1.0 REM

Thyroid Committed Dose Equivalent (CDE): 5.0 REM

**EMERGENCY EXPOSURE GUIDELINES**

<b>EMERGENCY WORKER EXPOSURE GUIDELINES</b>		
<b><i>NOTE: DO NOT EXCEED EXPOSURE or DOSE LIMITS LISTED BELOW WITHOUT COUNTY HEALTH OFFICER (CHO) AUTHORIZATION.</i></b>		
<b>Category</b>	<b>PED Dose Limit</b>	<b>Comments</b>
<b>1. EMERGENCY EXPOSURE GUIDELINES</b>		
Administrative Exposure ( DDE dose) Limit	1,000 mrem (1.00 rem) DDE dose	Administrative Exposure limit for emergency workers is set at 1,000 mrem DDE dose. Unless authorized to continue work, return to your EWEC Command Center, or other location as directed, immediately.
Emergency Activities	Up to 5,000 mrem (5 rem) TEDE dose	The CHO must authorize exposure in excess of 1,000 mrem DDE dose. If authorized, you may receive up to 5,000 mrem TEDE dose for emergency activities.
Activities to protect valuable property where lower dose is not practical.	Up to 10,000 mrem (10 rem) TEDE dose	With CHO authorization, up to 10,000 mrem TEDE dose may be authorized for protection of valuable property where a lower dose is not practical. <u>Volunteers Only. Safety Briefing.</u>
Life-saving activities or protection of large populations where lower dose is not practical.	Up to 25,000 mrem (25 rem) TEDE dose.	With CHO authorization, volunteers may be authorized up to 25,000 mrem (25 rem) TEDE dose for the purpose of life saving actions or the protection of large populations where a lower dose is not practical. <u>Volunteers Only. Safety Briefing</u>
Extraordinary Life-saving activities or protection of large populations where lower dose is not practical	25,000-75,000 mrem (25-75 rem) TEDE dose.	With CHO authorization, volunteers may be authorized up to 75,000 mrem (75 rem) TEDE dose for the purpose of extraordinary life-saving activities or protection of large populations where lower dose is not practical and ONLY if they have been made fully aware of the risks. <u>Volunteers Only. Safety Briefing</u>

<sup>27</sup> Source: U.S. EPA 400-R-92-001 (May 92) Manual of Protective Action Guides and Protective Actions for Nuclear Incidents

**TABLE 3.1: EMERGENCY PLANNING ZONE DESCRIPTIONS PROTECTIVE ACTION ZONES (PAZ)**

(Sheet 1 of 2)

**PAZs approximately 0 - 10 miles from Diablo Canyon Power Plant**

**AREA OF PRIMARY OVERSIGHT BY US DEPARTMENT OF HOMELAND SECURITY**

<b>(PAZ)</b>	<b>Designation</b>	<b>PAZ Includes</b>
1	2 - miles	Identified residences, isolated hill areas within 2 miles of the plant
2	6 - miles	Identified residences, plant access road, upper segments of See Canyon and Prefumo Canyon Road, Montana de Oro State Park and isolated hill areas extending out to 6 mile radius of the plant.
3	Avila/San Luis Bay/ See Canyon/ Squire Canyon	Avila Beach, Port San Luis, Pirate's Cove, San Luis Bay Estates, Avila Road, San Luis Bay Drive, See Canyon Road outside the 6-mile limit. Squire and Gragg Canyons and Sunset Palisades extending to the east and south to about 9 or 10 miles from the plant
4	Prefumo Canyon/Los OsosValley	Prefumo Canyon Road, outside 6-mile limit. Los Osos Valley Road between Turri Road and Foothill Boulevard extending out to approximately 10 miles from the plant
5	Baywood/Los Osos	Baywood Park, Los Osos, Turri Road, Los Osos Valley Road west of Turri Road, Clark Valley extending to the north approximately 10 miles from the plant.

-----AREAS EXCEEDING 10-Mile NRC EPZ-----

**AREA OF PRIMARY OVERSIGHT BY STATE OF CALIFORNIA**

<b>(PAZ)</b>	<b>Designation</b>	<b>PAZ Includes</b>
6	City of Pismo Beach	City of Pismo Beach (including beaches), Shell Beach, south of Spyglass Drive (including adjacent beaches).
7	Indian Knob/Price Canyon	Price Canyon Road and isolated hill areas north of Pismo Beach.
8	San Luis Obispo Area	City of San Luis Obispo, Cal Poly, Calif. Men's Colony, Camp San Luis Obispo, Cuesta College, O'Connor Way, Orcutt Road north of East Corral de Piedra Creek,

		Edna, Country Club, and Davenport Creek area.
9	Morro Bay/ Cayucos	State Highway 1 west Cuesta College, Morro Bay, Cayucos, Whale Rock Reservoir area.
10	Five Cities (southern portion)	City of Arroyo Grande, Grover Beach, Oceano, Halcyon, and Pismo State Beach.
11	Orcutt Road/Lopez Drive/State Highway 227	Canyon area north of Five Cities (bounded by Price Canyon, Orcutt Road, Huasna Creek and northern limits of Arroyo Grande and Pismo Beach).
12	Nipomo north of Willow Road	Nipomo Mesa north of Willow Road, Cienga Valley, Pismo Dunes State Recreational Vehicle Area.

**TABLE 3.1: PUBLIC EDUCATION ZONE DESCRIPTIONS  
 (Sheet 2 of 2)**

**AREA WHERE ANY SUBSEQUENT PROTECTIVE ACTIONS  
 WOULD BE DONE ON AN AD HOC BASIS**

<b>Public Education Zone (PEZ)</b>	<b>Designation</b>	<b>PEZ Includes</b>
13	Nipomo	Nipomo Mesa south of Willow Road, Nipomo Valley, Santa Maria Valley north of Santa Maria and Cuyama Rivers.
14	Cuesta Pass/ Santa Margarita	U.S. 101 north of San Luis Obispo, Santa Margarita, isolated hill areas north and east of San Luis Obispo within 20 miles of plant
15	State Highway 41/ Old Creek Road	State Highway 1 north of Cayucos, Old Creek Road, State Highway 41, isolated hill areas north and east of Cayucos and Morro Bay within 20 miles of the plant.

**TABLE 3.2.1: EPZ PERMANENT RESIDENT POPULATION**

Table 3-1. EPZ Permanent Resident Population

PAZ	2000 Population	2010 Population
1	2	0
2	168	168
3	2,069	2,736
4	637	713
5	14,661	14,217
6	7,760	6,562
7	56	281
8	57,320	60,962
9	13,502	13,126
10	36,060	37,476
11	3,481	4,205
12	4,941	6,775
<b>TOTAL</b>	<b>140,657</b>	<b>147,221</b>
<b>EPZ Population Growth:</b>		<b>4.67%</b>

**TABLE 3.2.2: PERMANENT RESIDENT VEHICLES BY PAZ**

Table 3-2. Permanent Resident Population and Vehicles by PAZ

PAZ	2010 Population	2010 Resident Vehicles
1	0	0
2	168	96
3	2,736	1,548
4	713	406
5	14,217	8,040
6	6,562	3,709
7	281	158
8	60,962	31,010
9	13,126	7,420
10	37,476	21,186
11	4,205	2,379
12	6,775	3,830
<b>TOTAL</b>	<b>147,221</b>	<b>79,782</b>

**TABLE 3.3.1: SUMMARY OF POPULATION DEMAND**

Table 3-9. Summary of Population Demand

PAZ	Residents	Transit-Dependent	Transients	Employees	Special Facilities	Schools	Shadow Population	External Traffic	Total
1	0	0	0	524	0	0	0	0	524
2	168	0	333	0	0	0	0	0	501
3	2,736	60	3,280	87	0	146	0	0	6,309
4	713	0	0	18	0	0	0	0	731
5	14,217	388	488	371	124	1,536	0	0	17,124
6	6,562	0	5,773	995	12	934	0	0	14,276
7	281	0	0	0	0	0	0	0	281
8	60,962	1,611	8,126	11,728	7,951	27,259	0	0	117,637
9	13,126	358	5,504	830	280	1,783	0	0	21,881
10	37,476	985	7,223	3,259	354	18,159	0	0	67,456
11	4,205	0	41	102	32	304	0	0	4,684
12	6,775	0	167	140	24	742	0	0	7,848
Shadow	0	0	0	0	0	0	4,723	0	4,723
<b>Total</b>	<b>147,221</b>	<b>3,402</b>	<b>30,935</b>	<b>18,054</b>	<b>8,777</b>	<b>50,863</b>	<b>4,723</b>	<b>0</b>	<b>263,975</b>

NOTE: Shadow Population has been reduced to 20%. Refer to Figure 2-1 for additional information.

NOTE: Special Facilities include medical facilities and correctional facilities.

**TABLE 3.3.2: SUMMARY OF VEHICLE DEMAND**

Table 3-10. Summary of Vehicle Demand

PAZ	Residents	Transit-Dependent	Transients	Employees	Special Facilities	Schools	Shadow Population	External Traffic	Total
1	0	0	0	485	0	0	0	0	485
2	96	0	201	0	0	0	0	0	297
3	1,548	4	1,413	80	0	6	0	0	3,051
4	406	0	0	17	0	0	0	0	423
5	8,040	26	177	346	88	56	0	0	8,733
6	3,709	0	2,457	920	8	34	0	0	7,128
7	158	0	0	0	0	0	0	0	158
8	31,010	108	3,500	10,857	152	354	0	0	45,981
9	7,420	24	2,477	769	32	68	0	0	10,790
10	21,186	66	4,606	3,017	86	264	0	0	29,225
11	2,379	0	17	95	5	10	0	0	2,506
12	3,830	0	73	130	8	32	0	0	4,073
Shadow	0	0	0	0	0	0	2,671	3,276	5,947
<b>Total</b>	<b>79,782</b>	<b>228</b>	<b>14,921</b>	<b>16,716</b>	<b>379</b>	<b>824</b>	<b>2,671</b>	<b>3,276</b>	<b>118,797</b>

NOTE: Buses represented as two passenger vehicles. Refer to Section 8 for additional information.

**TABLE 3.4: RECOMMENDED PROTECTIVE ACTIONS<sup>14</sup>**

<b>Projected Dose (REM) to the Population (a)</b>	<b>Recommended Protective Actions (b)</b>	<b>Comments</b>
TEDE - less than 1.0 REM  AND  Thyroid CDE - less than 5.0 REM	No planned protective actions beyond those actions followed in appropriate Standard Operating Procedures. (c)	Off-site authorities may take precautionary actions. Previously directed protective actions may be reconsidered or terminated.
TEDE - $\geq 1.0$ REM  OR  Thyroid CDE - $\geq 5.0$ REM	Evacuate. or Shelter in Place (d)  Order ingestion of KI for general population for Thyroid CDE $> 5.0$ (f)	Sheltering should be the preferred protective action when it will provide protection equal to evacuation or, if evacuation is not feasible. Institutionalized persons who are not readily mobile and are treated as a special group by off-site authorities may be sheltered.
Thyroid CDE- $\geq 5.0$ REM	Administer thyroid blocking for the appropriate emergency workers and institutionalized persons. (e) (f)	Thyroid blocking may be authorized by off-site authorities for populations which cannot be evacuated.

- (a) Dose thresholds are expressed in terms of Total Effective Dose Equivalent (TEDE) and Thyroid Committed Dose Equivalent (CDE).
- (b) These actions are a recommendation for planning purposes. At the time of the incident, Protective Action Decisions (PAD) should take existing conditions into consideration (e.g., plant conditions, adverse weather, evacuation time estimates, projected plume arrival time, competing disasters, etc.).
- (c) Off-site authorities may implement low impact protective and precautionary actions to reduce potential health effects from radiation exposure.
- (d) Sheltering should always be implemented in cases when evacuation is not carried out at projected TEDE of 1.0 REM or more. And except in very unusual circumstances, should never be relied upon at projected doses greater than 10.0 REM TEDE
- (e) In the event that an institutionalized person is under 18 years of age, thyroid blocking medication may be administered for thyroid CDE  $> 5$  REM
- (f) May also order ingestion if (1) a release of radioactive iodine occurs that poses a threat to public health or (2) when the release information is unknown but other environmental and plant conditions suggest KI ingestion may be a prudent measure.

**TABLE 3.5.1: EVACUATION TIMES ESTIMATE BY SCENARIO AND CONDITIONS – 90 PERCENT OF POPULATION**

Table 7-1. Time to Clear the Indicated Area of 90 Percent of the Affected Population

	Summer		Summer		Summer	Winter		Winter		Winter	Summer	Summer
	Midweek		Weekend		Midweek Weekend	Midweek		Weekend		Midweek Weekend	Midweek Weekend	Midweek
Scenario:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Region	Midday		Midday		Evening	Midday		Midday		Evening	Evening	Midday
	Good Weather	Rain	Good Weather	Rain	Good Weather	Good Weather	Rain	Good Weather	Rain	Good Weather	Special Event	Roadway Impact
<b>Entire 2-Mile Region, 6-Mile Region, and EPZ</b>												
R01 (PAZ 1)	1:00	1:00	1:00	1:00	1:00	1:00	1:00	1:00	1:00	1:00	1:00	1:00
R02 (PAZ 1, 2)	1:10	1:10	1:10	1:10	1:15	1:10	1:10	1:15	1:15	1:20	1:15	1:10
R03 (PAZ 1, 2, 3, 4, 5)	2:45	3:00	2:45	3:00	2:50	2:50	3:05	2:45	2:55	2:45	6:15	3:45
R04 (PAZ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12)	8:20	9:10	7:30	8:15	6:45	8:05	8:50	7:05	7:45	6:30	11:40	10:25
<b>6-Mile Ring and Keyhole to 10 Miles</b>												
R05 (PAZ 1, 2, 5)	2:55	3:10	2:50	3:05	2:45	2:55	3:10	2:45	3:05	2:45	2:45	2:50
R06 (PAZ 1, 2, 4, 5)	2:55	3:15	2:55	3:10	2:50	2:55	3:10	2:50	3:05	2:50	2:45	2:55
R07 (PAZ 1, 2, 3, 4)	1:35	1:45	1:25	1:40	1:35	1:35	1:40	1:25	1:40	1:40	6:40	2:45
R08 (PAZ 1, 2, 3)	1:40	1:45	1:25	1:35	1:30	1:35	1:40	1:25	1:30	1:35	6:35	2:50
<b>6-Mile Ring and Keyhole to 13 Miles</b>												
R09 (PAZ 1, 2, 5, 9)	4:05	4:25	4:05	4:15	3:40	3:55	4:15	3:45	3:55	3:30	4:35	4:15
R10 (PAZ 1, 2, 4, 5, 8, 9)	5:55	6:10	5:25	5:30	5:05	5:40	6:00	4:55	5:20	4:50	5:35	6:30

**TABLE 3.5.1 CONT: EVACUATION TIMES ESTIMATE BY SCENARIO AND CONDITIONS – 90 PERCENT OF POPULATION**

	Summer		Summer		Summer	Winter		Winter		Winter	Summer	Summer
	Midweek		Weekend		Midweek Weekend	Midweek		Weekend		Midweek Weekend	Midweek Weekend	Midweek
Scenario:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Region	Midday		Midday		Evening	Midday		Midday		Evening	Evening	Midday
	Good Weather	Rain	Good Weather	Rain	Good Weather	Good Weather	Rain	Good Weather	Rain	Good Weather	Special Event	Roadway Impact
R11 (PAZ 1, 2, 3, 4, 5, 7, 8, 9)	6:05	6:55	5:25	6:10	4:55	6:15	6:25	5:00	5:45	4:55	7:05	7:30
R12 (PAZ 1, 2, 3, 4, 6, 7, 8)	5:35	6:00	4:45	5:20	4:10	5:25	5:55	4:25	4:55	4:05	10:55	7:15
R13 (PAZ 1, 2, 3, 6, 7)	2:35	2:55	2:25	2:35	2:05	2:25	2:35	2:15	2:25	2:00	9:50	3:55
<b>6-Mile Ring and Keyhole to 15 Miles</b>												
R14 (PAZ 1, 2, 3, 4, 5, 7, 8, 9, 11)	6:25	7:00	5:45	6:00	5:10	6:25	6:55	5:30	6:05	5:00	7:05	7:35
R15 (PAZ 1, 2, 3, 4, 6, 7, 8, 10, 11)	7:45	8:20	6:55	7:25	6:00	7:25	8:10	6:30	7:00	5:45	11:15	9:45
R16 (PAZ 1, 2, 3, 6, 7, 10, 11)	5:55	6:20	5:40	6:15	5:00	5:25	6:00	5:10	5:35	4:50	9:40	7:45
<b>6-Mile Ring and Keyhole to EPZ Boundary</b>												
R17 (PAZ 1, 2, 3, 4, 6, 7, 8, 10, 11, 12)	8:00	8:45	7:25	8:00	6:20	7:50	8:35	6:50	7:25	6:10	11:20	10:30
R18 (PAZ 1, 2, 3, 6, 7, 10, 11, 12)	6:20	7:00	6:30	6:40	5:30	6:10	6:45	5:40	6:15	5:20	9:45	8:35
R19 (PAZ 1, 2, 12)	2:45	3:05	2:35	2:50	2:20	2:40	3:00	2:30	2:45	2:20	3:05	3:55

**TABLE 3.5.1 CONT: EVACUATION TIMES ESTIMATE BY SCENARIO AND CONDITIONS – 90 PERCENT OF POPULATION**

	Summer		Summer		Summer	Winter		Winter		Winter	Summer	Summer
	Midweek		Weekend		Midweek Weekend	Midweek		Weekend		Midweek Weekend	Midweek Weekend	Midweek
Scenario:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Region	Midday		Midday		Evening	Midday		Midday		Evening	Evening	Midday
	Good Weather	Rain	Good Weather	Rain	Good Weather	Good Weather	Rain	Good Weather	Rain	Good Weather	Special Event	Roadway Impact
<b>Site Specific Regions</b>												
R20 (PAZ 1, 2, 4, 8)	4:40	5:05	3:55	4:30	3:40	4:30	4:55	3:40	4:10	3:40	4:50	6:00
<b>Staged Evacuation - 2-Mile Ring and Keyhole to 6 Miles</b>												
R21 (PAZ 1, 2)	1:15	1:15	1:35	1:35	1:45	1:15	1:20	1:45	1:45	1:50	1:50	1:15
<b>Staged Evacuation - 6-Mile Ring and Keyhole to 10 Miles</b>												
R22 (PAZ 1, 2, 5)	3:20	3:35	3:20	3:35	3:20	3:20	3:35	3:20	3:35	3:20	3:20	3:20
R23 (PAZ 1, 2, 4, 5)	3:20	3:35	3:25	3:40	3:25	3:20	3:40	3:20	3:35	3:20	3:25	3:20
R24 (PAZ 1, 2, 3, 4, 5)	3:15	3:30	3:15	3:30	3:20	3:20	3:30	3:15	3:30	3:20	5:55	3:30
R25 (1, 2, 3, 4)	1:50	1:55	1:50	1:55	2:15	1:55	1:55	1:55	1:55	2:15	6:30	3:00
R26 (PAZ 1, 2, 3)	1:45	1:55	1:50	1:50	2:10	1:45	1:45	1:50	1:50	2:10	6:55	2:55

**TABLE 3.5.2: EVACUATION TIMES ESTIMATE BY SCENARIO AND CONDITIONS – 100 PERCENT OF POPULATION**

Table 7-2. Time to Clear the Indicated Area of 100 Percent of the Affected Population

	Summer		Summer		Summer	Winter		Winter		Winter	Summer	Summer
	Midweek		Weekend		Midweek Weekend	Midweek		Weekend		Midweek Weekend	Midweek Weekend	Midweek
Scenario:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Region	Midday		Midday		Evening	Midday		Midday		Evening	Evening	Midday
	Good Weather	Rain	Good Weather	Rain	Good Weather	Good Weather	Rain	Good Weather	Rain	Good Weather	Special Event	Roadway Impact
<b>Entire 2-Mile Region, 6-Mile Region, and EPZ</b>												
R01 (PAZ 1)	2:00	2:00	2:00	2:00	2:00	2:00	2:00	2:00	2:00	2:00	2:00	2:00
R02 (PAZ 1, 2)	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35
R03 (PAZ 1, 2, 3, 4, 5)	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	9:20	5:00
R04 (PAZ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12)	10:15	11:20	10:15	11:35	9:35	10:15	10:50	9:40	10:20	9:10	19:05	13:30
<b>6-Mile Ring and Keyhole to 10 Miles</b>												
R05 (PAZ 1, 2, 5)	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40
R06 (PAZ 1, 2, 4, 5)	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40
R07 (PAZ 1, 2, 3, 4)	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	9:20	4:40
R08 (PAZ 1, 2, 3)	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	4:40	8:25	4:40
<b>6-Mile Ring and Keyhole to 13 Miles</b>												
R09 (PAZ 1, 2, 5, 9)	5:15	5:45	5:10	5:30	4:45	5:05	5:30	4:50	5:05	4:45	5:35	5:25
R10 (PAZ 1, 2, 4, 5, 8, 9)	8:00	8:25	7:25	7:45	6:45	7:45	8:25	6:50	7:25	6:40	7:35	8:15

**TABLE 3.5.2 CONT: EVACUATION TIMES ESTIMATE BY SCENARIO AND CONDITIONS – 100 PERCENT OF POPULATION**

	Summer		Summer		Summer	Winter		Winter		Winter	Summer	Summer
	Midweek		Weekend		Midweek Weekend	Midweek		Weekend		Midweek Weekend	Midweek Weekend	Midweek
Scenario:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Region	Midday		Midday		Evening	Midday		Midday		Evening	Evening	Midday
	Good Weather	Rain	Good Weather	Rain	Good Weather	Good Weather	Rain	Good Weather	Rain	Good Weather	Special Event	Roadway Impact
R11 (PAZ 1, 2, 3, 4, 5, 7, 8, 9)	8:00	8:40	7:20	7:55	6:50	7:45	8:20	7:00	7:35	6:45	13:20	9:00
R12 (PAZ 1, 2, 3, 4, 6, 7, 8)	7:25	7:50	6:15	6:55	5:35	7:15	7:55	5:55	6:35	5:30	16:35	8:40
R13 (PAZ 1, 2, 3, 6, 7)	4:45	4:45	4:45	4:45	4:45	4:45	4:45	4:45	4:45	4:45	15:55	5:15
6-Mile Ring and Keyhole to 15 Miles												
R14 (PAZ 1, 2, 3, 4, 5, 7, 8, 9, 11)	8:00	8:45	7:15	7:40	6:55	7:55	8:40	7:00	7:30	6:50	12:55	9:15
R15 (PAZ 1, 2, 3, 4, 6, 7, 8, 10, 11)	9:40	10:25	9:50	10:45	8:30	9:35	10:25	8:55	9:30	8:20	17:45	12:45
R16 (PAZ 1, 2, 3, 6, 7, 10, 11)	8:55	10:00	9:00	9:50	7:35	7:55	8:30	8:05	8:30	7:00	16:05	10:10
6-Mile Ring and Keyhole to EPZ Boundary												
R17 (PAZ 1, 2, 3, 4, 6, 7, 8, 10, 11, 12)	10:15	11:00	10:15	11:25	9:10	10:05	10:45	9:35	10:15	9:00	18:30	13:20
R18 (PAZ 1, 2, 3, 6, 7, 10, 11, 12)	9:40	10:30	9:45	10:35	8:20	9:05	9:45	8:35	9:30	7:50	16:25	11:00
R19 (PAZ 1, 2, 12)	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50	4:50

**TABLE 3.5.2 CONT: EVACUATION TIMES ESTIMATE BY SCENARIO AND CONDITIONS – 100 PERCENT OF POPULATION**

	Summer		Summer		Summer	Winter		Winter		Winter	Summer	Summer
	Midweek		Weekend		Midweek Weekend	Midweek		Weekend		Midweek Weekend	Midweek Weekend	Midweek
Scenario:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Region	Midday		Midday		Evening	Midday		Midday		Evening	Evening	Midday
	Good Weather	Rain	Good Weather	Rain	Good Weather	Good Weather	Rain	Good Weather	Rain	Good Weather	Special Event	Roadway Impact
<b>Site Specific Regions</b>												
R20 (PAZ 1, 2, 4, 8)	6:35	7:10	5:20	6:10	5:05	6:25	7:00	5:10	5:55	5:00	6:15	7:45
<b>Staged Evacuation - 2-Mile Ring and Keyhole to 6 Miles</b>												
R21 (PAZ 1, 2)	3:30	3:30	3:30	3:30	3:30	3:30	3:30	3:30	3:30	3:30	3:30	3:30
<b>Staged Evacuation - 6-Mile Ring and Keyhole to 10 Miles</b>												
R22 (PAZ 1, 2, 5)	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35
R23 (PAZ 1, 2, 4, 5)	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35
R24 (PAZ 1, 2, 3, 4, 5)	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	8:35	4:35
R25 (1, 2, 3, 4)	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	8:25	4:35
R26 (PAZ 1, 2, 3)	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	4:35	8:40	4:35

**TABLE 3.6: EVACUATION TIMES STUDY EARTHQUAKE RESPONSE**

UPDATED INFORMATION REGARDING THE EVACUATION TIMES  
ESTIMATE AFTER AN EARTHQUAKE WILL BE DETAILED IN THE  
COUNTY OF SAN LUIS OBISPO EARTHQUAKE EMERGENCY RESPONSE  
PLAN

**TABLE 3.7: SUMMARY OF ACTIONS AT THE FOUR EMERGENCY CLASSIFICATION LEVELS**  
 (Sheet 1 of 4)

**UNUSUAL EVENT**

General Actions of Plant Staff	General Actions of County or Local Authorities
<ul style="list-style-type: none"> <li>● Promptly inform County, State and offsite company support agencies of nature of the unusual event.</li> <li>● Augment on-shift resources as required</li> <li>● Assess and respond.</li> <li>● Close out with verbal summary to offsite support agencies followed by written summary within 24 hours.</li> </ul>	<ul style="list-style-type: none"> <li>● Provide fire, emergency medical or law enforcement assistance if requested.</li> <li>● Notify agencies and personnel indicated on Watch Commander’s notification list (County Sheriff, County Office of Emergency Services, and activate the Red Phone</li> <li>● Release of public information as necessary.</li> <li>● Standby of designated County Emergency Services Staff until verbal closeout.</li> </ul>
<b><u>OR</u></b>	<b><u>OR</u></b>
<ul style="list-style-type: none"> <li>● Escalate to a more severe class.</li> <li>● Promptly inform County, State and offsite company support agencies of the ALERT or higher condition and its status.</li> </ul>	<ul style="list-style-type: none"> <li>● Escalate to a more severe class.</li> <li>● Provide fire, emergency medical or law enforcement assistance if requested.</li> </ul>

**TABLE 3.7: SUMMARY OF ACTIONS AT THE FOUR EMERGENCY CLASSIFICATION LEVELS**

(Sheet 2 of 4)

**ALERT**

General Actions of Plant Staff	General Actions of County or Local Authorities consider actions listed for UE plus the following:
<ul style="list-style-type: none"> <li>● Promptly inform County, State and offsite company support agencies of nature of the unusual event.</li> <li>● Augment resources by activating onsite Technical Support Center, onsite Operational Support Center and Emergency Operations Facilities.</li> <li>● Assess and respond.</li> <li>● Dispatch onsite monitoring teams and associated communications as required.</li> <li>● Provide periodic Meteorological assessments to offsite authorities.</li> <li>● Provide periodic plant status updates to offsite authorities at least every 45 minutes.</li> <li>● Provide a dedicated individual (advisor to the County Emergency Organization) for plant status updates to offsite authorities and periodic media briefings (joint with offsite authorities).</li> <li>● Close out by verbal summary to offsite authorities followed by written summary within 24 hours. <b><u>OR</u></b></li> <li>● Escalate to a more severe class.</li> </ul>	<p>All responders will follow their Standard Operation Procedures which may include but not limited to the following:</p> <ul style="list-style-type: none"> <li>● Activate the County Emergency Operations Center, JIC, PAC and Field Monitoring Teams.</li> <li>● Provide assistance requested, as available.</li> <li>● Notification of all local, state, and federal officials involved in emergency response.</li> <li>● Alert to standby status key emergency personnel and associated communications.</li> <li>● Provide confirmatory offsite radiation monitoring and ingestion pathway dose projections</li> <li>● County / State Parks and Beaches may be closed according to authorized jurisdiction’s SOPs as appropriate.</li> <li>● County Superintendent of Schools will consult with Bellevue-Santa Fe School and all District Superintendents regarding possible relocation. Relocation of certain schools may occur at this stage. Buses may be directed to standby at appropriate schools to facilitate the possible relocation of students, faculty and staff as the situation necessitates .</li> <li>● Place EAS on standby.</li> <li>● Request Cal OES to notify Camp Roberts and place National Guard and Camp Roberts on standby as necessary.</li> <li>● Consider implementing precautionary actions.</li> <li>● Consider opening or putting on standby all or some of the following facilities: Monitoring, Decontamination, Reception and Congregate Care facilities.</li> <li>● Consider request DCPP to have an American Nuclear Insurer’s respond to County Counsel.</li> <li>● Maintain ALERT status until closeout or reduction of emergency class.</li> </ul> <p><b><u>OR</u></b></p> <ul style="list-style-type: none"> <li>● Escalate to <b>SITE AREA EMERGENCY</b> or higher class.</li> </ul>

**TABLE 3.7: SUMMARY OF ACTIONS AT THE FOUR EMERGENCY CLASSIFICATION LEVELS**

(Sheet 3 of 4)

**SITE AREA EMERGENCY**

<b>General Actions of Plant Staff</b>	<b>General Actions of County or Local Authorities</b>
<ul style="list-style-type: none"> <li>● Promptly inform County, State, and offsite company support agencies of the Site Area Emergency condition and its status.</li> <li>● Augment resources by activating onsite Technical Support Center, onsite Operational Support Center, and offsite Recovery Center.</li> <li>● Assess and respond.</li> <li>● Dispatch onsite monitoring teams and associated communications.</li> <li>● Provide a dedicated individual (advisor to County Emergency Organization) for plant status updates to offsite authorities and periodic media briefings (joint with offsite authorities).</li> <li>● Make senior technical and management staff onsite available for consultation with NRC and State authorities on a periodic basis.</li> <li>● Provide meteorological and dose estimates to offsite authorities for actual releases via a dedicated individual or automated data transmission.</li> <li>● Provide release and dose projections based on available plant condition information and foreseeable contingencies.</li> <li>● Close out or recommend reduction in emergency class by briefing of offsite authorities at County Emergency Operations Center by phone followed by written summary within 24 hours.</li> </ul> <p><b><u>OR</u></b></p> <ul style="list-style-type: none"> <li>● Escalate to General Emergency class.</li> </ul>	<p>Complete the actions for ALERT, if appropriate, plus the following:</p> <ul style="list-style-type: none"> <li>● Notification of key local, state, and federal officials involved in emergency response.</li> <li>● Activation of the Emergency Operations Center, and Field Monitoring Team.</li> <li>● Activate JIC and PAC provide joint media briefings with DCP/PG&amp;E and various agencies.</li> <li>● Provide assistance requested, as available.</li> <li>● Dispatch key emergency personnel, including monitoring teams and associated communications as appropriate</li> <li>● Consider sheltering or evacuating. Assess need to extend precautionary actions. (County and State Parks and Beaches may be closed according to authorized jurisdiction’s SOPs)</li> <li>● Alert to standby status other emergency personnel (e.g., those needed for evacuation) and dispatch personnel to near-site duty stations.</li> <li>● Consider implementing school relocation and limiting hospital admissions.</li> <li>● Provide monitoring results to DCP/PG&amp;E and others and jointly assess data (use UDAC).</li> <li>● Assess need for preventive and protective agriculture measures.</li> <li>● Continuously assess information from DCP/PG&amp;E and offsite monitoring with regard to changes to protective actions already initiated for public and mobilizing evacuation resources.</li> <li>● Activate Monitoring and Decontamination, Reception and Congregate Care facilities as appropriate.</li> <li>● Mobilize response staff necessary to conduct operations throughout EPZ.</li> <li>● Maintain SITE AREA EMERGENCY status until closeout or reduction of emergency class.</li> </ul> <p><b><u>OR</u></b></p> <ul style="list-style-type: none"> <li>● Escalate to <b>GENERAL EMERGENCY</b> class.</li> </ul>

**TABLE 3.7: SUMMARY OF ACTIONS AT THE FOUR EMERGENCY CLASSIFICATION LEVELS**

(Sheet 4 of 4)

**GENERAL EMERGENCY**

<b>General Actions of Plant Staff</b>	<b>General Actions of County or Local Authorities</b>
<ul style="list-style-type: none"> <li>● Promptly inform County, State and offsite company support agencies of the General Emergency condition and its status.</li> <li>● Augment resources by activating onsite Technical Support Center, onsite Operational Support Center, and Emergency Operations Center.</li> <li>● Assess and respond</li> <li>● Evacuate nonessential people from the site.</li> <li>● Dispatch onsite and offsite monitoring teams and associated communications.</li> <li>● Provide a dedicated individual (Advisor to County Emergency Organization) for plant status updates to offsite authorities and periodic media briefings (joint with offsite authorities).</li> <li>● Make senior technical and management staff onsite available for consultation with NRC and the State on a periodic basis.</li> <li>● Provide meteorological and dose estimates to offsite authorities for actual releases via a dedicated individual or automated data transmission.</li> <li>● Provide release and dose projections based On available plant condition information and foreseeable contingencies.</li> <li>● Close out or recommend reduction of emergency class by briefing of offsite authorities at County Emergency Operations Center by phone followed by written summary within 24 hours.</li> </ul>	<p>Complete the actions for SITE AREA EMERGENCY, if appropriate, and include the following:</p> <ul style="list-style-type: none"> <li>● Notification of key local, state and federal officials involved in emergency response.</li> <li>● Provide assistance requested, as available.</li> <li>● Activate the County Emergency Operations Center, JIC and PAC.</li> <li>● Activate public notification of emergency status and provide public periodic updates. (Use EAS)</li> <li>● Shelter or evacuate as appropriate. Assess need to extend protective actions.</li> <li>● Use Siren Systems as appropriate if public protective actions are ordered</li> <li>● Dispatch key emergency personnel including monitoring teams and associated communications.</li> <li>● Dispatch other emergency personnel to duty stations within Emergency Planning Zone and alert all others to standby status.</li> <li>● Provide monitoring results to PG&amp;E, if any, and others in UDAC and continually assess information from PG&amp;E and offsite monitoring with regard to changes to protective actions already initiated for the public and mobilizing evacuation resources.</li> <li>● Assess need for action to prevent or mitigate Ingestion pathway exposure and recommend preventative and protective measures.</li> <li>● Consider relocation to an alternate EOC if actual dose accumulation in near-site EOC exceeds lower bound of EPA Protective Action Guides.</li> <li>● Maintain <b>GENERAL EMERGENCY</b> status until closeout or reduction of emergency class.</li> </ul>

**TABLE 3.7: GUIDANCE ON INITIATION AND DURATION OF RELEASE**

**IF A RELEASE OCCURS**

<b>Time from initiating event to start of atmospheric release</b>	<b>0.5 hour to 1 day</b>
<b>Time period over which radioactive material may be continuously released</b>	<b>0.5 hour to several days</b>
<b>Time at which major portion of release may occur</b>	<b>0.5 hour to 1 day after start of release</b>
<b>Travel time for release to exposure point (time after release)</b>	<b>5 miles: 0.5 to 2 hours 10 miles: 1 to 4 hours</b>

Source: NUREG-0654/FEMA-REP-1, Rev. 1, 1980  
 Section I.D, Planning Basis, Table 2



**TABLE 7.3-2: SOP NUMERICAL LISTINGS**

**Part Three  
Standard Operating Procedure (SOP) Numerical Listing**

**NPP SOPS**

<b>SOP No.</b>	<b>SOP Title</b>	<b>Responsible Organization / Authenticator</b>
III.01	Emergency Services Director	County Administrative Officer
III.02	County Sheriff's Department	Sheriff
III.02A	County Sheriff's Watch Commander Procedures	Sheriff
III.03	CAL FIRE/County Fire Department	County Fire Chief
III.04	County Public Works and Transportation	Public Works Director
III.05	County Public Health Agency	Health Agency Director
III.06	County Environmental Health	Environmental Health Director
06-HP1	Offsite Dose Assessment	Environmental Health Director
06-HP1A	Offsite Dose Assessment-Computerized	Environmental Health Director
06-HP2	Protective Action Guidelines	Environmental Health Director
06-HP3	Emergency Environmental Monitoring	Environmental Health Director
06-HP6	Vehicle Monitoring	Environmental Health Director
06-HP7	Evacuee Decontamination-Camp Roberts	County Health Officer
06-HP8	Area, Vehicle, and Equipment Decon	County Health Officer
06-HP9	Emergency Worker Decon	County Health Officer
06-HP11	Emergency Worker Exposure Control	County Health Officer
06-HP12	Unified Dose Assessment	Environmental Health Director
06-HP15	Southern Evacuee Monitoring, Decon (EMAD) and Reception Center Operations	Santa Barbara County
III.07	Department of Social Services	DSS Director
III.08	Public Information Officer	County PIO/OES Manager
III.10	General Services Agency	General Services Director
III.11	County Counsel	Dept Head or Lead County Counsel
III.12	County Agriculture Commissioner	Ag Commissioner
III.13	Air Pollution Control District	Supervisor Air Quality Specialist
III.14	Plans	Emergency Services Manager
III.15	Logistics	Emergency Services Manager
III.16	Operations	Emergency Services Manager
III.17	Incident Command Post	Emergency Services Manager
III.20	California Highway Patrol	CHP Commander
III.21	Caltrans	Caltrans
III.22	State Parks and Recreation	State Parks and Recreation
III.23	American Red Cross	American Red Cross

<b>SOP No.</b>	<b>SOP Title</b>	<b>Responsible Organization / Authenticator</b>
III.24	Cal Poly	Cal Poly
III.25	USCG	USCG Morro Bay
III.30	City of Morro Bay	Fire Chief of Morro Bay
III.31	City of San Luis Obispo	Fire Chief of SLO City
III.32	City of Pismo Beach	City Manager/Police Chief
III.33	City of Arroyo Grande	Police Chief
III.34	City of Grover Beach	Police Chief
III.41	Cayucos Fire Protection District	Fire Chief
III.44	Port San Luis Harbor District	Harbor Master
III.50	County Office of Education	County Office of Education
III.51	San Luis Coastal Unified School District	Superintendent
III.53	Cayucos Elementary School	Superintendent/Principal
III.54	Lucia Mar Unified School District	Superintendent
III.55	Cuesta College	College President
III.56	Paso Robles Event Center	Paso Robles Event Center
III.57	Bellevue Santa-Fe Charter School	Superintendent/Principal
III.58	Before/After School Care Providers	County Office of Education
III.59	Nipomo Evacuation Center	Superintendent
III.60	RACES	Comm Shop Director
III.62	Private Schools	County Office of Education
III.64	Route Alerting and Carless Collection	OES Manager

\* Gaps in numbering indicate SOPs that have been deleted or combined.

**TABLE 7.3-3: BLOCK DIAGRAM CROSS REFERENCE**

**Functional Responsibilities Matrix/Table**

	COMMAND/CONTROL	ALERT/NOTIFICATION	COMMUNICATIONS	PUBLIC INFORMATION	ACCIDENT ASSESSMENT	HEALTH/SANITATION	SOCIAL SERVICES	FIRE & RESCUE	TRAFFIC CONTROL	EMERGENCY MEDICAL	LAW ENFORCEMENT	TRANSPORTATION	PROTECTIVE RESPONSE	ERO SUPPORT	RADIOLOGICAL ASSESSMENT	EXPOSURE CONTROL
<b>COMMAND</b>	P			P									P			P
Joint Information Center				P												
<b>OPERATIONS</b>		P		S									P			P
Fire/Rescue Branch								P		S						
Law Branch									P		P					
Med/Health Branch						P				P						
Public Works/Utilities Branch									S			P				
Care & Shelter Branch							P									
<b>PLANNING</b>		P											S			
UDAC					P										P	
FMTs															P	
<b>LOGISTICS</b>			P											P		
<b>FINANCE/ADMIN</b>														P		

P = Primary Responsibility  
S = Secondary Responsibility