191464

SAN LUIS OBISPO COUNTY

NUCLEAR POWER PLANT

EMERGENCY RESPONSE PLAN

STANDARD OPERATING PROCEDURE

III.06

SAN LUIS OBISPO COUNTY ENVIRONMENTAL HEALTH DEPARTMENT

REVISED:

MAY 1989
OCTOBER 1990
MARCH 1992

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AUTHENTICATION

191464

This Standard Operating Procedure has been approved and is hereby incorporated as a department procedure:

Signed and Accepted:

Tim Mazzacano

Name

Environmental Health Director

Title

5/19/92

Date

PREFACE

191464

This SOP comprises Section III.06 of the San Luis Obispo County Nuclear Power Plant Emergency Response Plan. Detailed preparedness measures and emergency procedures concerning the operation of this organization are included herein. Part I of the Plan describes the overall County emergency organization and response, while Part II includes implementing instructions to be used by the County Direction and Control group and other key officials and the County Emergency Operations Center (EOC) in directing the emergency response activities.

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OFFICE OF EMERGENCY SERVICES

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OFFICE OF EMERGENCY SERVICES

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SECTION I - OVERVIEW

A. INTRODUCTION

1. PURPOSE

The purpose of this Standard Operating Procedure is to provide general guidance to San Luis Obispo County Environmental Health Division personnel for emergency response. Specific tasks are covered by other standard operating procedures.

2. OBJECTIVES

The objectives of this procedure are as follows:

- Provide a general description of the emergency responsibilities of the Environmental Health Division (EHD) in the various emergency classifications.
- Delineate the relationship of the EHD to other agencies in the emergency organization.
- Describe the plan for maintaining emergency preparedness.

3. OVERVIEW

The primary role of the Environmental Health Division (EHD) is to provide direction and staffing for the offsite radiological accident assessment effort performed by the County.

As UDAC Coordinator, the Director of Environmental Health has the responsibility for integrating radiological data obtained from various sources into protective action recommendations to the County Health Officer (CHO) throughout the emergency. Other personnel from the EHD will serve as UDAC staff in gathering data and performing dose assessments.

Additionally, the County Environmental Health Division has the responsibility to provide County personnel for plume assessment field monitoring teams. The teams, consisting of personnel from the EHD and the Pacific Gas and Electric Company (PG&E), may be deployed to pre-selected monitoring locations at the declaration of an Alert or greater emergency action level.

In the post-accident phase (after plume passage and dispersal) the UDAC Coordinator will continue to provide protective response recommendations based on dose projections related to the ingestion pathway, including recovery/re-entry actions. Health physics capability will be provided upon request by the State and Federal government to assist in this effort. Depending on availability of State and/or Federal manpower, County Deputy Health Officers could be used to compliment staffing needs for ingestion pathway zone (IPZ) and recovery/re-entry field monitoring teams.

B. RESPONSIBILITIES

Emergency responsibilities of EHD personnel are summarized below. These responsibilities apply both to the initial response phase and the recovery and re-entry phases. Where noted, other procedures may provide more specific responsibilities regarding specific tasks. A diagram illustrating the emergency organization structure is shown in figure B-1. The responsibility matrix of various tasks is presented in figure B-2.

1. DIRECTOR, ENVIRONMENTAL HEALTH

a) As UDAC Coordinator, assume responsibility for accident assessment for the County.

b) Implement Checklist 1, attached.

c) Oversee field monitoring operations of County field monitoring teams in accordance with SOP HP-3.

d) Obtain updates and projections on plant status, dose projections, meteorology, and recommendations from the PG&E Recovery Manager.

e) Based on radiological field data and dose projections, recommend protective actions to the County Health Officer and the County Emergency Services Director with guidance of SOP HP-2.

f) When warranted on the basis of actual or projected thyroid doses and RHS guidelines, recommend to the CHO administration of potassium iodide for emergency workers using the guidance of SOP HP-5.

g) Assist the County Health Officer in determining the need for activating emergency screening/decontamination centers, based on accident conditions.

h) Should food, animal feeds, and/or water supplies be contaminated in excess of state/federal guidelines, make recommendations in conjunction with the County Agriculture Commissioner to the County Health Officer regarding protective actions.

i) Advise the County Agriculture Commissioner regarding locations for deployment of County/State ingestion pathway zone (IPZ) monitoring teams, relationship of field monitoring data to PAG's, and for sample collection and submittal for analysis.

j) Inform Cal Poly Laboratory, PG&E Mobile Laboratory, and other identified laboratories regarding sample analysis needed.

k) Review reported laboratory analysis data and make recommendations in conjunction with the County Agriculture Commissioner to the County Health Officer regarding the need for protective actions.

f) When necessary, coordinate the County Environmental Health Department's support of recovery and re-entry activities with state, federal, and utility responses.

m) Based on radiological data, make recommendations in conjunction with the Direction and Control Group and the State for relaxation of protective actions and initiation of recovery actions.

n) In the event of an earthquake, coordinate activities of the UDAC with the Earthquake Damage Assessment Center (EDAC).

o) Be available to assist County Public Information Officer in the preparation of emergency instructions and in the release of public information concerning the emergency.

2. DEPUTY HEALTH OFFICERS

a) Perform field monitoring duties as directed by the UDAC Coordinator and as designated in SOP HP-3 during the initial response phase and as necessary during the recovery and re-entry phase.

b) Perform data analysis, communications, and other functions as part of the UDAC staff as directed by the UDAC Coordinator, and designated in SOP HP-12.

c) Report for contamination screening, bioassay, debriefing, etc., as directed by the UDAC Coordinator.

3. OTHER SUPPORT GROUPS/AGENCIES

UDAC Operation

As UDAC Coordinator, the Director of Environmental Health has the responsibility to oversee the operation of the UDAC accident assessment function. This function is a combined effort of County, State, and Federal agencies and includes the technical input of representatives from the following groups:

County Environmental Health Department
County Agriculture Department
County Air Pollution Control District
California Department of Health Services/Radiological Health Branch
California Office of Emergency Services
US Environmental Protection Agency
US Department of Energy
US Nuclear Regulatory Commission
Pacific Gas and Electric Company

Field Monitoring

Plume monitoring teams will consist of personnel from the Environmental Health Department (one or two Deputy Health Officers, depending on resources), and from Pacific Gas and Electric (one or two Health Physics Technicians). This composition provides a mechanism for a double verification of field data and redundant instrumentation in case of failure.

The State Department of Health Services (DHS) has the lead responsibility for monitoring in support of ingestion pathway assessments or for recovery and re-entry. However, depending on personnel availability, and the nature of the accident, personnel from the County Environmental Health or Agriculture Departments may be called upon to assist DHS in this task.

FIGURE B-1
EMERGENCY ORGANIZATION

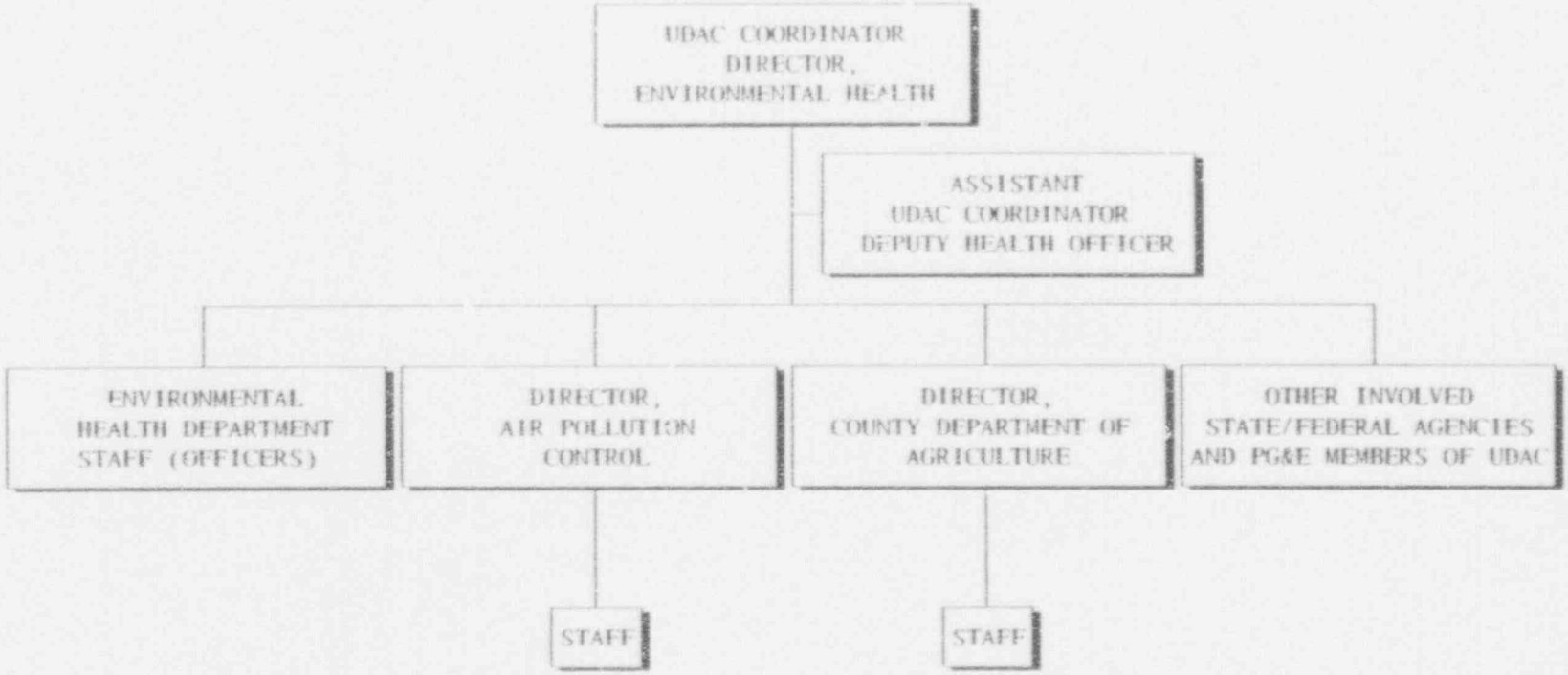

FIGURE B-2

RESPONSIBILITY MATRIX

	Accident Assessment	Protective Response	Field Monitoring Direct Pathway	Ingestion Pathway	Recovery/ Re-Entry	Exposure Control	Public Health Support	Earthquake Response
Director, Environmental Health	O	O	O	*	*	O	*	*
Staff, Environmental Health	O		O	*	*	O		
Agricultural Commissioner	*	*		*		*	*	

O = Primarily Responsible

* = Secondarily Responsible

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C. CONCEPT OF OPERATIONS

1. EMERGENCY CLASSES AND RESPONSE ACTIONS

The County Plan describes 4 classifications of emergencies, with varying severity, which correspond to the emergency classification system at Diablo Canyon Power Plant which has been mandated by federal authorities in NUREG-0654/FEMA REP-1. The following is a list and brief description of the accident classes:

Notification of Unusual Event

Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.

Alert

Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.

Site Area Emergency

Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public. Any releases not expected to exceed EPA Protective Action Guideline exposure levels except near site boundary.

General Emergency

Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area.

Response Actions

In the event one of these emergencies is declared by the plant staff, immediate notifications are made to the County through the Sheriff's dispatch center. The dispatch center will in turn notify County officials, based on the severity of the emergency class. Generally, the Environmental Health Department will be notified only for emergencies classified as Alerts or higher, since there would be no need for offsite radiological monitoring or dose assessments for a Notification of Unusual Event. Table C-1 shows the expected actions by the Environmental Health Department for each of the emergency classes.

TABLE C-1
Page 1

EMERGENCY ACTION LEVEL (EAL)	NOTIFICATION ACTIONS	UDAC ACTIONS	FIELD TEAM ACTIONS
UNUSUAL EVENT	NONE	NONE	NONE
ALERT	1. Environmental Health Director notified and reports to UDAC. 2. Environmental Health Director verifies that County Health Officer has been notified to report to EOC and mobilizes field teams. 3. Environmental Health Director notifies Air Pollution Control Director to report to UDAC. 4. Air Pollution Control Director notifies County Agriculture Commissioner to report to EOC.	1. Activate UDAC. 2. Mobilize and dispatch key emergency personnel including monitoring teams, associated equipment and communication systems if plant releases greater than technical specifications. 3. Alert to standby status other emergency personnel needed for protective response actions (Asst. Director, Air Pollution Control; Asst. Agriculture Commissioner). 4. Provide offsite monitoring results in conjunction with protective response recommendations to EOC. 5. Continuously assess information from the utility and offsite monitoring with regard to updates in protective response recommendations and actions already indicated. 6. Assess need for action to assess, prevent, or mitigate ingestion pathway exposure.	1. Report to Dispatch for distribution of emergency monitoring and personnel protective equipment and for briefing. 2. Proceed to field locations and perform actions as directed by UDAC and SOP.

EMERGENCY ACTION LEVEL (EAL)	NOTIFICATION ACTIONS	UDAC ACTIONS	FIELD TEAM ACTIONS
SITE AREA EMERGENCY	1. Environmental Health Director notified and reports to UDAC. 2. Environmental Health Director verifies that County Health Officer has been notified to report to EOC and mobilizes field teams. 3. Environmental Health Director notifies Air Pollution Control Director to report to UDAC. 4. Air Pollution Control Director notifies County Agriculture Commissioner to report to EOC.	1. Activate UDAC. 2. Mobilize and dispatch key emergency personnel including monitoring teams, associated equipment and communication systems if plant releases greater than technical specifications. 3. Mobilize other emergency personnel needed for protective response actions. 4. Provide offsite monitoring results in conjunction with protective response recommendations to EOC. 5. Continuously assess information from the utility and offsite monitoring with regard to updates in protective response recommendations and actions already initiated. 6. Assess need for action to assess, prevent, or mitigate ingestion pathway exposure.	1. Report to Dispatch for distribution of emergency monitoring and personnel protective equipment and for briefing. 2. Proceed to field locations and perform actions as directed by UDAC and SOP.

EMERGENCY ACTION LEVEL (EAL)	NOTIFICATION ACTIONS	UDAC ACTIONS	FIELD TEAM ACTIONS
GENERAL EMERGENCY	1. Environmental Health Director notified and reports to UDAC. 2. Environmental Health Director verifies that County Health Officer has been notified to report to EOC and mobilizes field teams. 3. Environmental Health Director notifies Air Pollution Control Director to report to UDAC. 4. Air Pollution Control Director notifies County Agriculture Commissioner to report to EOC.	1. Activate UDAC. 2. Mobilize and dispatch key emergency personnel including monitoring teams, associated equipment and communication systems if plant releases greater than technical specifications. 3. Mobilize other emergency personnel needed for protective response actions. 4. Provide offsite monitoring results in conjunction with protective response recommendations to EOC. 5. Continuously assess information from the utility and offsite monitoring with regard to updates in protective response recommendations and actions already initiated. 6. Assess need for action to assess, prevent, or mitigate ingestion pathway exposure. 7. Provide offsite monitoring results in conjunction with protective response recommendations to EOC.	1. Report to Dispatch for distribution of emergency monitoring and personnel protective equipment and for briefing. 2. Proceed to field locations and perform actions as directed by UDAC and SOP.

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EMERGENCY ACTION LEVEL (EAL)	NOTIFICATION ACTIONS	UDAC ACTIONS	FIELD TEAM ACTIONS
		8. Recommend evacuation of LPZ and that other areas of the basic emergency planning zone be placed on ALERT status. Assess the need to initiate protective response actions beyond the LPZ. 9. Assess the need to relocate to alternative EOC is actual dose accumulation at near to site EOC exceeds lower bound of PAG.	

2. NOTIFICATION AND MOBILIZATION

Initial notification of the UDAC Coordinator and Assistant UDAC Coordinator is described in the San Luis Obispo county Nuclear Power Plant Emergency Response Plan section II.1.4. The UDAC Coordinator and the Assistant Coordinator will be contacted by telephone by County OES or by pager through the Sheriff's Department and directed to report to the EOC/UDAC. The remaining staff will be notified and mobilized in the following manner:

During Normal Operating Hours: (8:00 a.m. to 5:00 p.m., Monday through Friday)

Staff members will be notified by the UDAC Coordinator or his designee, normally by telephone, or by vehicle radios or pagers if they are in the field conducting routine functions. Once contacted, staff members will be instructed to report to the Health Department main office to pick up their monitoring kits and receive their emergency assignments.

After the teams have been formed they will be directed by the UDAC Coordinator or his designee to:

Hold at the Health Department awaiting further instruction through the UDAC communications systems

or

Proceed to the PG&E Service Center and join the utility team counterparts

or

Proceed to the predetermined monitoring/sampling points in the appropriate sectors to join their PG&E counterparts and initiate monitoring activities as instructed in procedure HP-3.

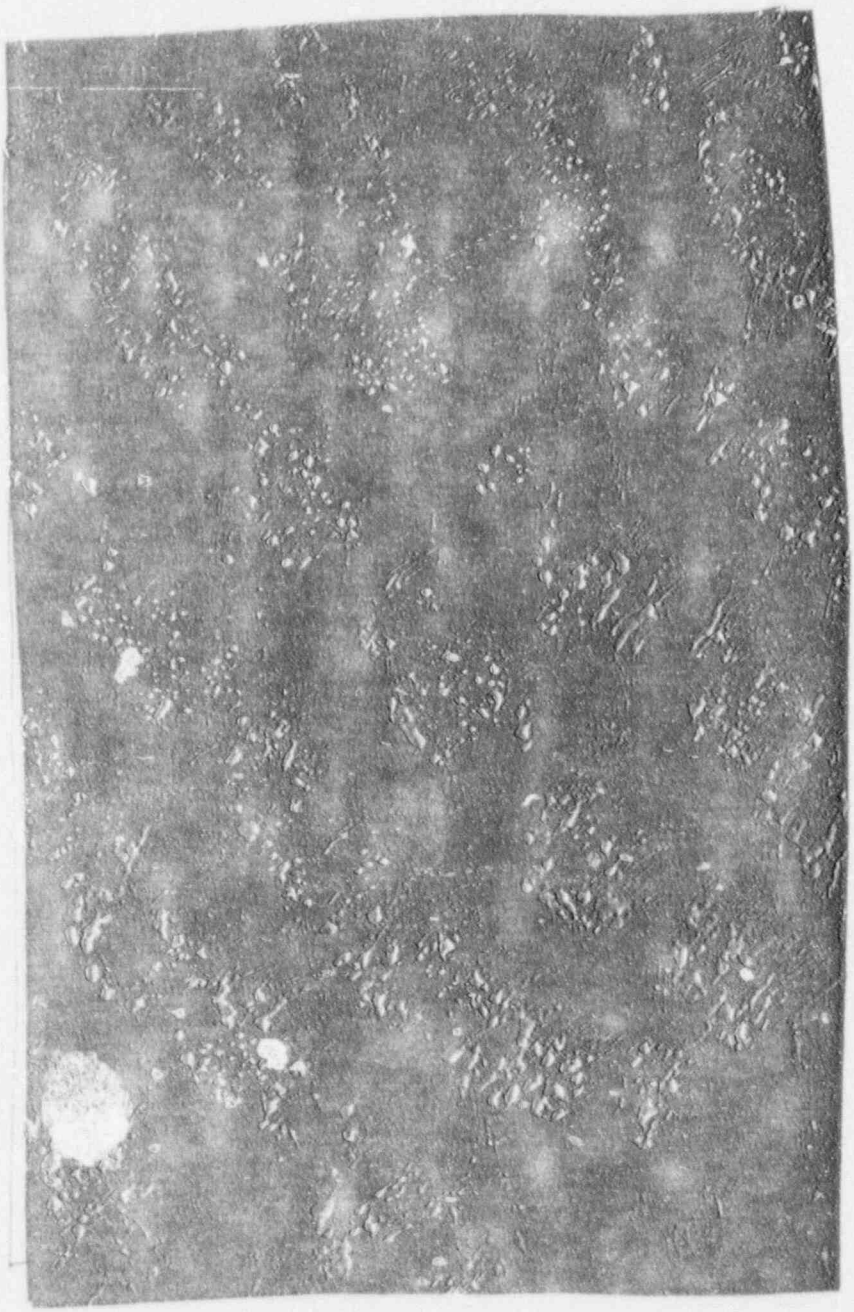
After Normal Operating Hours or Weekends and Holidays:

On-call staff would be contacted/activated via pager and instructed to begin notification and mobilization of the emergency organization by calling out necessary personnel according the matrix in figure IC-2. On-call staffing will be composed of a UDAC Coordinator and one field team member.

FIGURE C-2

NOTIFICATION MATRIX

	Office Phone	Home Phone	Pager
HEALTH OFFICER			
Dr. George Rowland			
UDAC COORDINATOR			
Tim Mazzacano			
ASST. UDAC COORDINATOR			
Brad Seek			
Steve Carnes			
UDAC ALTERNATE			
Mike Doherty			
MOBILE LABORATORY			
Manuel Negrete			
FIELD TEAM PERSONNEL			
Steve Carnes			
Steve Diaz (Grover City)			
Mike Doherty			
Marina Michel			
John Scholtes			
Mike McGee			
Richard Lichtenfels			
Jerry LeMoine			
Susan Ayres			
Lyle Lemen			
Charles Tenborg			
Debbie Smith-Cooke			
Carlos Martinez			



3. ANALYSIS OF ENVIRONMENTAL SAMPLES

Samples will be analyzed by either the PG&E Mobile Environmental Monitoring Laboratory (MEML) or the Cal Poly Laboratory. The MEML may be contacted on the PG&E Health Physics frequency through the EOF. The Cal Poly Laboratory may be contacted at [redacted] or on a PG&E line, [redacted].

Descriptions of the laboratory analysis capabilities for both the Cal Poly Laboratory and the MEML is shown on Table 7.3-8 of the Diablo Canyon Power Plant Emergency Plan. The Cal Poly Lab is available under the terms of a contract that PG&E maintains with the Cal Poly Foundation. The Cal Poly Lab will be staffed by PG&E personnel.

Additional laboratory facilities are available through the State Radiological Health Branch and are described in the Department of Health Services, Environmental Health Division Radiologic Emergency Response Plan for Nuclear Power Plant Emergencies.

All samples should be retained by the field teams until directed by the UDAC as to their ultimate disposition.

4. MONITORING OF EVACUEES

If a significant release of radioactivity has occurred along with offsite evacuations, evacuees may have to be monitored for contamination. The UDAC Coordinator will make a recommendation to the Direction and Control group to initiate monitoring by designated personnel depending on the congregate care centers activated.

a. Interim personnel monitoring will be provided by PG&E, and supported by the State Department of Health Services.

b. Interim vehicle monitoring will be provided by the California Highway Patrol, PG&E, and supported by the State Department of Health Services.

D. COMMUNICATIONS, FACILITIES, EQUIPMENT, AND SUPPLIES

1. FACILITIES

San Luis Obispo County Health Agency, Division of Environmental Health is located at 2156 Sierra Way, San Luis Obispo, CA 93406.

The Unified Dose Assessment Center (UDAC) is located at the County Emergency Operations Center, 1525 Kansas Avenue, off Highway 1 in San Luis Obispo.

The Mobile Environmental Monitoring Laboratory (MEML) garage is located at the PG&E Service Center, 4325 S. Higuera, San Luis Obispo.

2. COMMUNICATIONS

The following communications equipment is available for emergency response at the various facilities:

Environmental Health Office

Dispatcher/base station on SLO County UHF Local Government frequency. Sheriff's Dispatchers also have two-way communications and paging capability on this frequency.

10 portable radios on UHF Local Government and PG&E Health Physics

2 single-unit radio chargers

1 multi-unit radio charger

15 pagers on VHF Local Government

10 convertacoms for in-vehicle use

UDAC

Dispatcher/base station on UHF Local Government and PG&E Health Physics

Pacific Bell lines

Intercom lines

3. OPERATIONAL EQUIPMENT

Each SLO County Environmental Health field monitoring team member will be issued an emergency kit prior to dispatch and meeting their PG&E counterpart. Inventory, maintenance, and calibration schedule are described in Environmental Health emergency procedure SLO-HP-13, "Emergency Equipment, Instruments and Supplies."

E. PROCEDURE MAINTENANCE

This procedure and associated Health Physics (HP) procedures will be reviewed annually, and revised as necessary under the supervision and authority of the Director of Environmental Health in conjunction with the San Luis Obispo County Office of Emergency Services.

F. DRILLS AND TRAINING

1. TRAINING PROGRAMS

The following list outlines the training requirements of the County Environmental Health Organization. This training will be offered on an annual basis to department supervisors and staff.

Field Monitoring Team Personnel

Use and care of survey meters and air samplers

Proper survey technique, and data recordir

Water, soil, and vegetation sampling techniques

Radiation protection

Respirator fitting and use

UDAC Personnel

Meteorology - transport and dispersion

Dose projection calculations

Protective action guidelines and response actions

2. DRILLS AND EXERCISES

As part of their role in the County's Emergency Response Organization, the Environmental Health Department will participate in periodic drills and exercises. Each of these events is designed to simulate an actual emergency, and provide feedback on performance through critiques held afterwards. The following is a list of routinely scheduled events:

Diablo Canyon Annual Field Exercise

Diablo Canyon Power Plant conducts an annual full-scale emergency preparedness exercise in conjunction with federal, state, and local government agencies. This exercise will be evaluated by federal agencies, including the U.S. Nuclear Regulatory Commission and the Federal Emergency Management Agency. Participation of the Environmental Health Department generally includes full activation of the UDAC staff and field monitoring teams.

Diablo Canyon Dress Rehearsal Exercise

Prior to the Annual Field Exercise, an unevaluated preliminary, or "Dress Rehearsal" exercise is held at Diablo Canyon and supporting agencies to assess strengths

and weaknesses, and to point out areas where increased attention or training may be necessary.

Annual UDAC Drill

A separate annual drill of the UDAC staff is conducted to practice dose projections, field data acquisition, accident assessment,and the formulation of protective actions recommendations.

Field Monitoring Drill

An annual drill of the field monitoring teams is conducted to practice monitoring techniques, communication with the UDAC, and radiation protection techniques. This is sometimes held in conjunction with the UDAC Drill.

CHECKLIST 1

Specialized Procedures

This checklist should be initiated at the beginning of the emergency and as emergency conditions change to identify the specific procedures which may be necessary to respond to the emergency at hand. The UDAC Coordinator or his designee should indicate with a mark each of the procedures which are applicable, and use them to guide the emergency response.

___ HP-1, OFFSITE DOSE CALCULATIONS
Conditions: Airborne environmental release of radioactivity is occurring or anticipated.

___ HP-2, PROTECTIVE ACTION GUIDELINES
Conditions: Projected offsite doses exceed Protective Action Guideline Doses, 500 mRem whole body, or 5 Rem to the child thyroid.

___ HP-3, EMERGENCY ENVIRONMENTAL MONITORING
Conditions: Evironmental release of airborne radioactive material

___ HP-4, BASIC RADIATION SURVEYS
Conditions: Whenever field radiation surveys are necessary

___ HP-5, STABLE IODINE THYROID BLOCKING
Conditions: Emergency workers or non-mobile residents could receive a thyroid dose of 10 Rem or greater, or for emergency workers performing lifesaving actions in areas where high concentrations of radioiodine are suspected

___ HP-6, VEHICLE MONITORING

___ HP-7, EVACUEE DECONTAMINATION
Conditions: Congregate care centers activated following an environmental release of airborne radioactivity

___ HP-8, AREA AND EQUIPMENT DECONTAMINATION
Conditions: Radioactive contamination is detected in areas that must be occupied or on equipment that must be used

___ HP-9, EMERGENCY WORKER DECONTAMINATION

___ HP-10, INGESTION PATHWAY SCREENING
Conditions: Environmental release of airborne radioactivity has occurred, with potential effect on water supplies or agriculture.

____ HP-11, EXPOSURE CONTROL OF EMERGENCY WORKERS
Conditions: Emergency operations must be conducted in areas where exposure to radiation could occur.

____ HP-12, UNIFIED DOSE ASSESSMENT CENTER
Conditions: Activation of UDAC

____ HP-13, EMERGENCY EQUIPMENT, INSTRUMENTS, AND SUPPLIES
Conditions: Inventory of Environmental Health emergency equipment

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SAN LUIS OBISPO COUNTY

NUCLEAR POWER PLANT

EMERGENCY RESPONSE PLAN

STANDARD OPERATING PROCEDURE

III.06, HP-2

County Environmental Health Department

PROTECTIVE ACTION GUIDELINES

REVISED:

JUNE 1989
AUGUST 1991
MARCH 1992

AUTHENTICATION

This Standard Operating Procedure has been approved and is hereby incorporated as a department procedure:

Signed and Accepted:

Tim Maggiano
Name

ENVIRONMENTAL HEALTH DIRECTOR
Title

APRIL 6, 1992
Date

PREFACE

This SOP comprises Section III.06 HP-2 of the San Luis Obispo County Nuclear Power Plant Emergency Response Plan. Detailed preparedness measures and emergency procedures concerning the operation of this organization are included herein. Part I of the Plan describes the overall County emergency organization and response, while Part II includes implementing instructions to be used by the County Direction and Control group and other key officials and the County Emergency Operations Center (EOC), in directing the emergency response activities.

SAN LUIS OBISPO COUNTY
OFFICE OF EMERGENCY SERVICES

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SAN LUIS OBISPO COUNTY
OFFICE OF EMERGENCY SERVICES

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SECTION I - OVERVIEW

A. INTRODUCTION

1. PURPOSE

This procedure describes the mechanism for recommending protective actions to the San Luis Obispo County Health Officer (a member of the Emergency Direction and Control Group) in response to a radiological event at Diablo Canyon Power Plant. Also included are the bases for the choice of the recommended protective actions for the plume exposure pathway and ingestion exposure pathway during emergency conditions.

2. OBJECTIVES

The objectives of this procedure are as follows:

- Delineate the responsibilities of San Luis Obispo County personnel in taking emergency actions to protect the public

- Provide specific guidance on emergency criteria for determining appropriate protective actions.

3. OVERVIEW

In a nuclear emergency, an estimate is made of the radiation dose which affected population groups may potentially receive. The dose estimate is called the projected dose. A protective action is an action taken to avoid or reduce this projected dose when the benefits derived from such actions are sufficient to offset any undesirable features of the protective action. The Protective Action Guide (PAG) is the projected dose to individuals in the population which warrants taking protective action. A PAG under no circumstance implies an acceptable dose. It is used only in an ex post facto effort to minimize the risk from an event which is occurring or has already occurred.

In this procedure, a methodology using projected doses and PAG's is developed to guide the UDAC Coordinator in determination of recommended protective actions. The actual selection of protective actions must be considered subjectively as many factors beyond the scope of the procedure may exist which, in the judgment of the UDAC Coordinator, override the criteria contained herein.

B. RESPONSIBILITIES

1. UDAC COORDINATOR

The UDAC Coordinator, with technical assistance from the UDAC staff, is responsible for the recommendation of appropriate protective actions for the general public to the County Health Officer. These are formally documented on the Protective Action Recommendation Form (Attachment 2), which must be signed by the UDAC Coordinator.

2. UDAC STAFF

The San Luis Obispo County UDAC staff is responsible to perform dose projections and provide relevant information to the UDAC Coordinator. Completion of the Protective Action Recommendation Form may be delegated to UDAC staff members, but the form must be approved and signed by the UDAC Coordinator before a recommendation is made to the County Health Officer.

3. PACIFIC GAS AND ELECTRIC CO. (PG&E)

The Recovery Manager (or the Site Emergency Coordinator via the Advisor to the County, if the EOF is not fully activated) will review the Protective Action Recommendations and either concur with them or provide a separate recommendation using PG&E Form 69-10412, "PG&E Protective Action Recommendations".

4. DIRECTION AND CONTROL GROUP

The County Health Officer will inform the Direction and Control Group of the UDAC Coordinator's protective action recommendation. The UDAC Coordinator will assist the County Health Officer.

The authority and responsibility for implementing protective actions rests with the Direction and Control Group.

C. CONCEPT OF OPERATIONS

1. PAG'S FOR THE PLUME EXPOSURE PATHWAY

PAG's for the general population for whole body external gamma radiation and for thyroid dose from inhalation of radioactive material in an airborne plume are as follows:

Projected Whole Body Gamma Dose: 0.5-5 Rem

Projected Child Thyroid Dose: 5-25 Rem

PAG's for the general public are given in ranges. The lowest values should be used if there are no major local constraints in providing protection at this level. Local constraints may, however, make the lower values impractical to use, but in no case should the higher value be exceeded in determining a need for protective action.

The projected dose should be calculated at the following distances: site boundary (800 meters), 2 miles (3,219 meters), 5 miles (8,047 meters), 10 miles (16,094 meters), 15 miles (24,141 meters), 20 miles (32,188 meters), and the point of maximum exposure.

For purposes of recommending protective actions, the minimum area affected shall be assumed to be the plume centerline sector and a 22.5° sector on either side of the plume centerline sector, moving radially away from the release point.

2. PROTECTIVE ACTIONS FOR THE PLUME EXPOSURE PATHWAY

Table 1 lists the PAG's and recommended protective actions for the plume exposure pathway. The protective actions are classified according to the projected radiation dose to the affected population if no protective actions are implemented.

Evacuation Effectiveness

The effectiveness of evacuation in limiting radiation dose is a function of the time required to evacuate. If a radioactive plume is present, the dose will increase with the time of exposure; if evacuation is completed before the plume arrives, then evacuation is 100 percent effective.

Evacuation time, T(EV) is expressed as follows:

$$T(EV) = T_D + T_N + T_H + T_L + T_T$$

$$= T_D + T_M + T_T$$

where:

T_D = Time delay after occurrence of the incident associated with notification of responsible officials, interpretation of data, and the decision to evacuate as a protective action.

T_N = Receipt of Notification The time required for the general population within the affected area to receive notification of evacuation once the public warning is initiated by the local authorities.

T_N = Return to Home The time required for persons to return to their homes, if not already at home, prior to their evacuation of the area. This reflects the time required to close up businesses and places of work.

T_L = Departure from Home Once home, the time required to assemble family members, to pack essential items for the evacuation, and to secure the home prior to their leaving.

T_T = Evacuation Travel Time Once underway, the time required for the population to travel out of the affected area.

T_M = Mobilization Time This is the total time between the initial evacuation notification and the time that the person leaves home. It is the sum of $T_N + T_H + T_L$.

Attachment 1 contains the three hypothetical evacuation scenarios analyzed in "Evacuation Times Assessment for Transient and Permanent Population from Various Areas Within the Plume Exposure Pathway Emergency Planning Zone, Diablo Canyon Nuclear Power Plant, Update" February, 1986 by Wilbur Smith & Associates.

Plume arrival time, T(PA) is expressed as:

$$T(PA) = T_B + T_T$$

where:

T_B = Time projected before the release begins

T_T = Time projected for plume travel for given wind speed and downwind distances from the start of the release

NOTE: Use Figure 1, "Plume Travel Time vs. Wind Speed as a Function of Distance Downwind" to determine T_T.

Compare the estimated evacuation time, T(EV), with the estimated plume arrival time, T(PA), to determine if there are constraints against evacuation. If there are constraints against evacuation see "Sheltering Effectiveness" below.

Sheltering Effectiveness

In cases where there is no time to evacuate prior to arrival of the plume, or where the projected evacuation time and time before plume arrival are nearly equal, evaluate the benefits of sheltering vs. evacuating and being overtaken by the passing plume.

If evacuation cannot be carried out in sufficient time to offer significant dose avoidance, recommend that officials warn the affected population to seek shelter, close windows, seal cracks in doors with wet rags, and turn off ventilation systems.

Recommend that access be controlled to any area where either sheltering or evacuation has been implemented. After the plume has passed, ground deposition will be evaluated to determine whether dose rates are sufficient to warrant subsequent evacuation.

1) Shielding factors for external whole body gamma dose are presented in Table 2. Shielding factors from external gamma rays for individuals in various types of structures vary widely. To be conservative, assume a shielding factor of 0.9 for residences and 1.0 (no benefit) for a closed vehicle.

   Multiply the projected dose by the external shielding factor to determine the sheltered external gamma dose. Compare the sheltered external gamma dose to the PAG for whole body gamma dose.

2) Shielding factors for an inhalation dose are presented in Figure 2. Shielding factors are for a sealed, wood-frame house.

   Multiply the projected thyroid dose by the inhalation shielding factor to determine the sheltered thyroid inhalation dose. Compare the sheltered thyroid inhalation dose with the PAG for thyroid dose.

3) For final evaluation of sheltering effectiveness, determine whether the whole body or thyroid is the critical organ of concern.

   The gaseous portion of a radioactive plume may consist of noble gases and/or vapors such as radioiodines. The noble gases will not cause as much dose from inhalation as from whole body external exposure and therefore need not be considered as a separate contributor to inhalation exposure.

3. PAG'S FOR THE INGESTION EXPOSURE PATHWAY

PAG's for the general population for the ingestion exposure pathway are for two levels of response.

Preventive PAG–applicable to situations where protective actions causing minimal impact on the food supply are appropriate. A preventive PAG establishes a level at which responsible officials should take protective action to prevent or reduce the concentration of radioactivity in food or animal feed.

Emergency PAG--applicable to situations where protective actions of great impact on the food supply are justified because of the projected health hazards. An emergency PAG establishes a level at which responsible officials should isolate food containing radioactivity to prevent its introduction into commerce, and at which the responsible officials must determine whether condemnation or another disposition is appropriate.

PAG's for the Ingestion Pathway are as follows:

Preventive	Whole Body	0.5 Rem
	Infant Thyroid	1.5 Rem
Emergency	Whole Body	5 Rem
	Infant Thyroid	15 Rem

Although the basic PAG recommendations are given in terms of projected dose equivalent, it is often more convenient to utilize specific radionuclide concentrations upon which to initiate protective actions. Table 3 shows derived response levels equivalent to the PAG's for radionuclides of interest.

4. POPULATION AFFECTED

Tables 4 and 5 show population numbers for residential and transient population respectively by Protective Action Zone.

Figure 3 shows the Protective Action Zones (PAZ).

PAZ's should be used when providing protective action recommendations to the Direction and Control Group as indicated on the Protective Action Recommendation Form.

D. COMMUNICATIONS AND FACILITIES

1. FACILITIES

San Luis Obispo County Health Agency, Division of Environmental health is located at 2156 Sierra Way, San Luis Obispo, CA 93406.

The Unified Dose Assessment Center (UDAC) is located at the County Emergency Operations Center, 1525 Kansas Avenue, off Highway 1 in San Luis Obispo.

2. COMMUNICATIONS

Communications for protective action recommendations will be accomplished via direct verbal exchanges and transfer of the Protective Action

Recommendation Form to the Direction and Control Group within the Emergency Operations Center

Once the final recommendation for protective actions has been made by the Direction and Control Group, the message is transmitted to the Emergency Broadcast System radio stations via a tone-alert radio frequency (the primary method), or via leased telephone lines to two primary EBS stations as a backup.

E. PROCEDURE MAINTENANCE

This procedure will be reviewed annually, and revised as necessary under the supervision and authority of the Director of Environmental Health in conjunction with the San Luis Obispo County Office of Emergency Services.

F. DRILLS AND TRAINING

1. TRAINING PROGRAMS

All persons with responsibilities designated in this procedure will receive annual training as designated and administered by the San Luis Obispo County Office of Emergency Services.

2. DRILLS AND EXERCISES

Protective action recommendations are generally tested under drill and exercise scenarios several times each year. Each of these events is designed to simulate an actual emergency, and provide feedback on performance through critiques held afterward. The following is a list of routinely scheduled events.

Diablo Canyon Annual Field Exercise

Diablo Canyon Power Plant conducts an annual full-scale emergency preparedness exercise in conjunction with federal, state, and local government agencies. This exercise will be evaluated by federal agencies, including the U.S. Nuclear Regulatory Commission and the Federal Emergency Management Agency.

Diablo Canyon Dress Rehearsal Exercise

Prior to the Annual Field Exercise, an unevaluated preliminary, or "Dress Rehearsal" exercise is held by Diablo Canyon and supporting agencies to assess strengths and weaknesses, and to point out areas where increased attention or training may be necessary.

Annual UDAC Drill

A separate annual drill of the UDAC staff is conducted to practice dose projections, field data acquisition, accident assessment, and the formulation of protective action recommendations.

G. REFERENCES, FIGURES, AND TABLES

References

1. "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents," US EPA, September 1975 (Revised June 1980)

2. "Reactor Safety Study," Appendix VI, WASH-1400, October 1975

3. "State of California Nuclear Power Plant Response Plan," January 1988

4. "Evacuation Time Assessment for Transient and Permanent Population from Various Areas Within the Plume Exposure Pathway Emergency Planning Zone, Diablo Canyon Nuclear Power Plant, Update" Wilbur Smith & Associates, February 1986

5. "Accidental Radioactive Contamination of Human Food and Animal Feeds," US DHEW, Federal Register, Vol. 43, No. 242, December 15, 1978

Table 1

RECOMMENDED PROTECTIVE ACTIONS TO REDUCE WHOLE BODY AND THYROID DOSE FROM EXPOSURE TO A GASEOUS PLUME

Projected Dose (rem) to the Population	Recommended Actions[a]	Comments
Whole Body - less than 0.5[b] Thyroid - less than 5	No planned protective actions[c]. Offsite authorities may issue an advisory to seek shelter and await further instructions. Monitor environmental radiation levels.	Previously recommended protective actions may be reconsidered or terminated.
Whole Body - 0.5 to 5	Seek shelter as a minimum. Consider evacuation/unless constraints make it impractical. Monitor environmental radiation levels. Control access to affected areas.	If constraints exist to prevent full-scale evacuation, special consideration should be given for evacuation of children and pregnant women.
Whole Body - 5 and above Thyroid - 25 and above	Conduct mandatory evacuation. Monitor environmental radiation levels and adjust area for mandatory evacuation based on these levels. Control access to affected areas.	Sheltering is an alternative if evacuation cannot be promptly accomplished.

(a) These actions are recommended for planning purposes. Protective action decisions at the time of the incident must take existing conditions into consideration (e.g., weather, plume arrival time).

(b) The value of 0.5 rem whole body is based upon guidance from the State of California (see reference 3).

(c) At the time of the incident, officials may implement low-impact protective actions in keeping with the principle of maintaining radiation exposures as low as reasonably achievable (ALARA).

Table 2

EVACUATION TIME ESTIMATES

EVACUATION CONDITION		EVACUATION SCENARIO			
Sector	Protective Action Zones	Normal Weekday	Peak Weekend	Night	Adverse Weather
		(Evacuation Time in Hours)			
Base (6 mile zone + Avila Beach and Los Osos Valey)	(1,2,3,4)	2:45	2:45	2:00	2:45
North (to 10 miles)	Base + (5)	5:00	5:00	4:45	6:00
North (12 to 18 miles)	Base + (5,9)	5:15	5:15	4:45	6:00
East (13 to 17 miles)	Base + (8)	5:00	5:15	4:15	5:45
North & East (12 to 18 miles)	Base + (5,8,9)	5:45	6:00	5:15	6:45
Southeast (13 miles)	Base + (6,7)	2:45	3:30	2:15	2:45
Southeast (15 miles)	Base + (6,7,10,11)	5:30	6:45	5:00	6:15
Southeast (20 miles)	Base + (6,7,10,11,12)	5:30	6:45	5:00	6:15
Entire Basic Emergency Planning Zone	(1-12)	6:00	6:45	5:15	7:00

Source: Reference 4.

Table 3

Same as page 9 of 14 from Revision 2

RADIONUCLIDE RESPONSE LEVELS EQUIVALENT TO INGESTION PATHWAY PAGS

Response Level for Preventive PAG

	I-131	Cs-134	Cs-137	Sr-90	Sr-89
Initial Deposition (uCi/m²)	0.13	2	3.0	0.5	8
Peak Activity:					
Pasture (uCi/kg)	0.05	0.8	1.3	0.18	3
Milk (uCi/l)	0.015	0.15	0.24	0.009	0.14
Total Intake (uCi)	0.09	4.0	7	0.2	2.6

Response Level for Emergency PAG

	I-131		Cs-137		Cs-134	
	Infant	Adult	Infant	Adult	Infant	Adult
Initial Deposition (uCi/m²)	1.3	18	30	50	20	40
Peak Activity:						
Pasture (uCi/kg)	0.5	7.0	13	19	8	17
Milk (uCi/l)	0.15	2.0	2.4	4	1.5	3
Total Intake (uCi)	0.9	10	70	80	40	70

	Sr-90		Sr-89	
	Infant	Adult	Infant	Adult
Initial Deposition (uCi/m²)	5.0	20	80	1600
Peak Activity				
Pasture (uCi/kg)	1.8	8	30	700
Milk (uCi/l)	0.09	0.4	1.3	30
Total Intake (uCi)	2	7	26	400

"Accidental Radioactive Contamination of Human Food and Animal Feeds," U.S. FDA, Federal Register, Vol. 47, No. 205, October 22, 1982.

Table 4

BEPZ POPULATION AND DWELLING UNITS
1985 vs. 1980

PROTECTIVE ACTION ZONE		RESIDENTIAL POPULATION			DWELLING UNITS		
		1980 (1)	1985 (2)	Ratio 1985/1980	1980 (1)	1985 (2)	Ratio 1985/1980
1	2-Mile	5	4	0.80	3	3	1.00
2	6-Mile	58	96	1.66	27	46	1.70
3	Avila/San Luis Bay/See Canyon	949	1,921	2.02	502	778	1.55
4	Prefumo Canyon/ Los Osos Valley	57	406	7.12	29	152	5.24
5	Baywood/Los Osos	11,554	13,634	1.18	4,691	5,492	1.17
6	City of Pismo Beach	5,286	5,599	1.06	3,315	2,828	0.85
7	Squire Canyon	210	79	0.38	79	36	0.46
8	San Luis Obispo Area	41,803	48,914	1.17	15,561	15,474	0.99
9	Morro Bay/Cayucos	11,830	15,185	1.28	6,172	7,032	1.14
10	Five Cities, Southern Portion	25,459	27,400	1.08	10,555	10,448	0.99
11	Price Canyon, Orcutt Road Lopez Drive, Route 227	1,386	2,832	2.04	599	950	1.59
12	Nipomo North of Willow Road	2,000	4,424	2.21	744	1,542	2.07
	BEPZ TOTAL	100,588	120,494	1.20	42,277	44,781	1.06

(1) March, 1985 Plan Update.
(2) From PG&E Land Department, September, 1985.
NOTE: BEPZ denotes Basic Emergency Planning Zone.
SOURCE: San Luis Obispo County Nuclear Power Plant Emergency Response Plan, San Luis Obispo County Office of Emergency Services.

Table 5

ESTIMATED TRANSIENT POPULATION, BY ZONE

PROTECTIVE ACTION ZONE		TRANSIENT		
		NORMAL WEEKDAY	PEAK SUMMER WEEKEND	NIGHTTIME
1	2-Mile	1,500	300	300
2	6-Mile	1,220	2,370	50
3	Avila/San Luis Bay/See Canyon/Squire Canyon	2,200	5,400	790
4	Prefumo Canyon Los Osos Valley	--	--	--
5	Baywood/Los Osos	--	--	--
6	City of Pismo Beach	4,970	14,500	7,450
7	Indian Knob/Price Canyon	--	--	--
8	San Luis Obispo Area	1,420	1,800	1,550
9	Morro Bay/Cayucos	3,540	9,550	2,160
10	Five Cities, Southern Portion	4,150	19,570	1,170
11	Orcutt Road/Lopez Drive/ Route 227	--	--	--
12	Nipomo North of Willow Road	210	210	--
	BEPZ TOTAL	19,210	53,700	13,470

SOURCE: San Luis Obispo County Office of Emergency Services, San Luis Obispo County, Nuclear Power Plant Emergency Response Plan, March 1985. Wilbur Smith and Associates.

Figure 1

Plume Travel Time vs. Windspeed as a Function of Distance Downwind

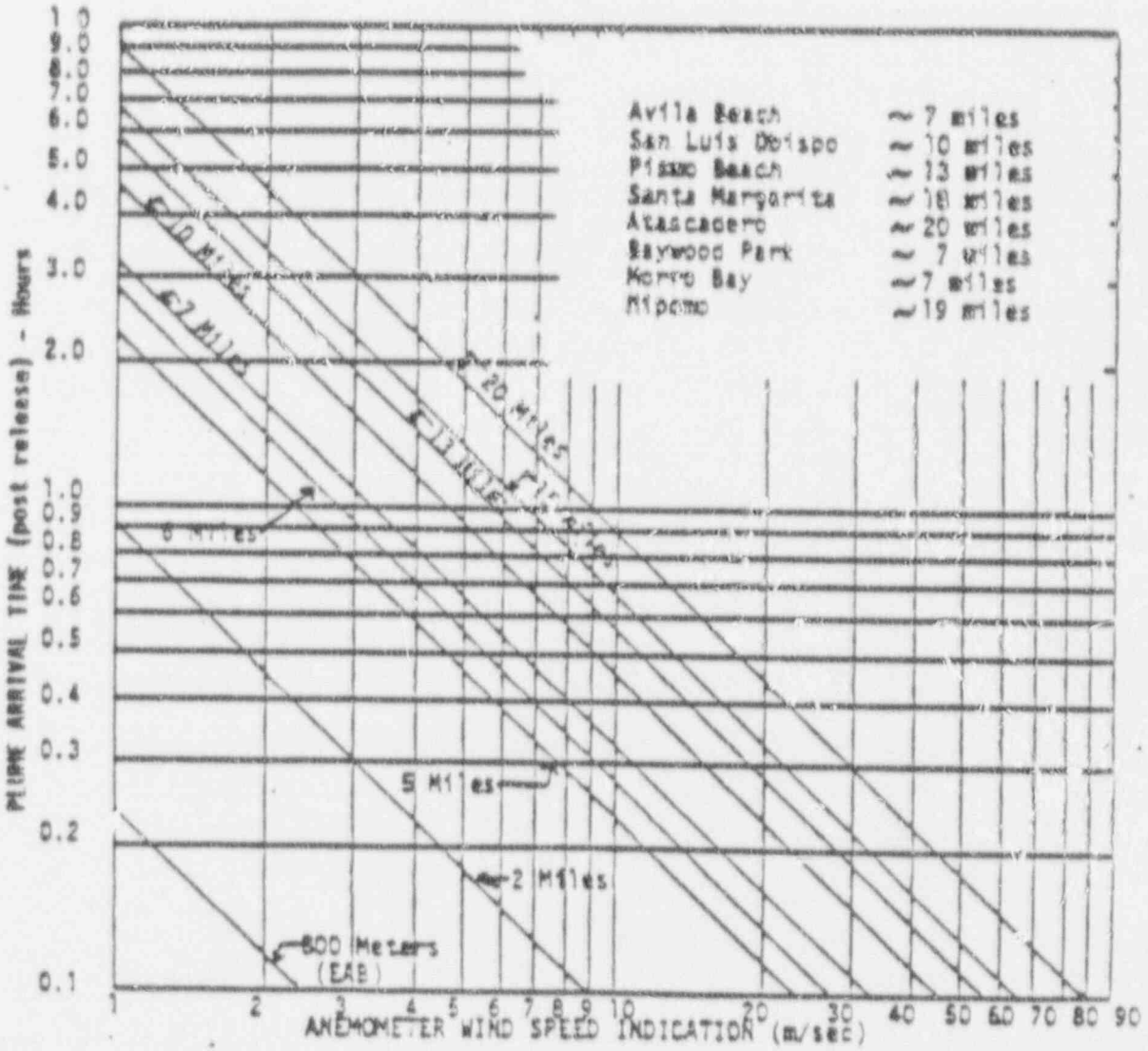
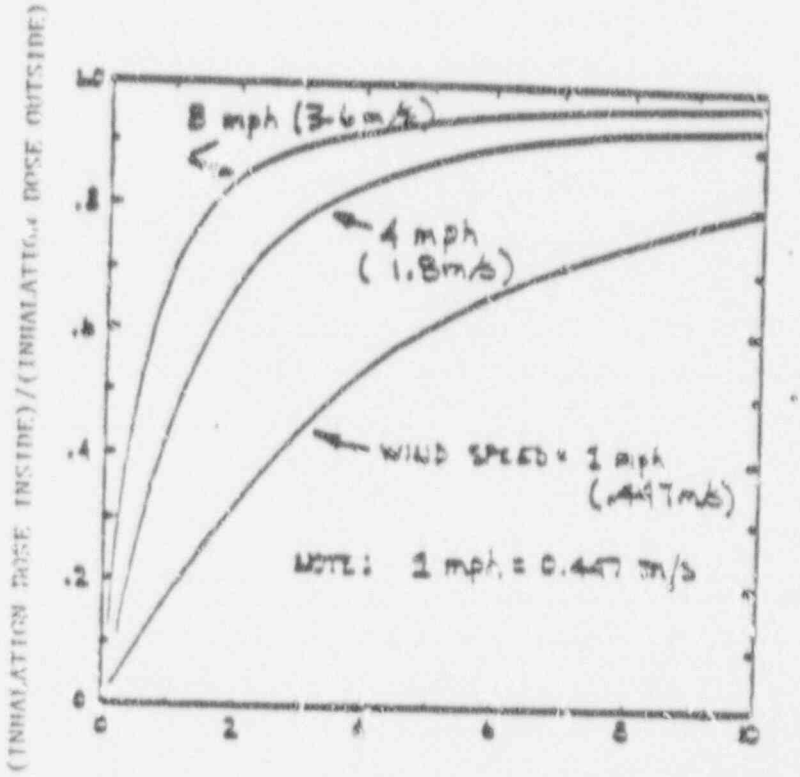


Figure 2

Inhalation Shielding Factors for a Wood House, Snug Doors, Closed Windows

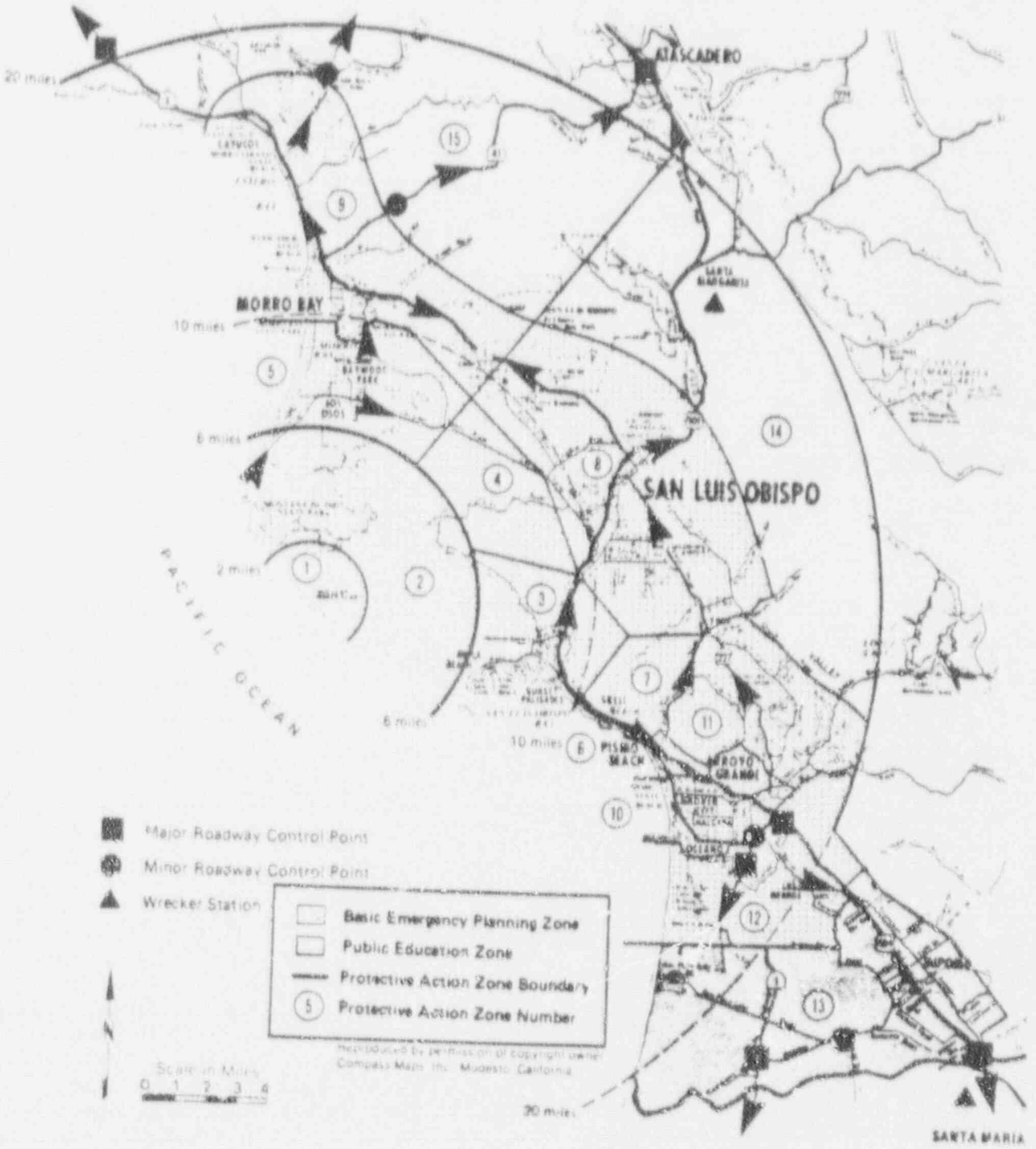


EXPOSURE TIME (HR)

The above curve assumes the house remains closed up for the duration. Actually the dose inside the house can be further reduced by opening the doors and windows after the cloud has passed and purging the house with fresh air.

"Reactor Safety Study", Appendix VI, WASH-1400, October 1975

Figure 3


ATASCADERO
MORRO BAY
SAN LUIS OBISPO
PISMO BEACH
ARROYO GRANDE
GROVER BEACH
OCEANO
GUADALUPE
SANTA MARIA
20 miles
10 miles
6 miles
2 miles
PACIFIC OCEAN
Major Roadway Control Point
Minor Roadway Control Point
Wrecker Station
Basic Emergency Planning Zone
Public Education Zone
Protective Action Zone Boundary
Protective Action Zone Number
Scale in Miles
0 1 2 3 4

ATTACHMENT 1

EVACUATION TIME ESTIMATES

from

EVACUATION TIME ASSESSMENT

FOR TRANSIENT AND PERMANENT POPULATION

FROM VARIOUS AREAS WITHIN THE PLUME EXPOSURE PATHWAY

EMERGENCY PLANNING ZONE

DIABLO CANYON POWER PLANT

by Wilbur Smith and Associates

February 1986

Chapter 7
EVACUATION TIME ESTIMATES

There are two distinct events which are necessary to initiate the evacuation. One event is the direct notification of public agencies, schools, and institutions requiring special evacuation considerations. The second event is the dissemination of the evacuation warning to the general population. Both of these events must include instructions regarding the sectors to be evacuated. The first event is assumed to be accomplished by telephone from the various emergency response organizations to each affected group. The second event would be initiated by a public warning system, which would combine an acoustical warning system by sirens, and then be supplemented by instructions over selected broadcast stations.

7.1 Components of Evacuation Time

For the general population, the time required to evacuate is comprised of several individual time components. During an evacuation, each individual would react differently in terms of actions and speed. Therefore, each of these time components must be considered as a distribution of individual time rather than a single, fixed-time increment. The sequence of actions during an evacuation have been formulated to reflect those actions which may be expected from the majority of the population. The evacuation time components used in this analyses are as follows:

1. Receipt of Notification - The time required for the general population within the affected area to receive notification of evacuation once the public warning is initiated by the local authorities.

2. Return to Home - The time required for persons to return to their homes, if not already at home, prior to their evacuation of the area. This reflects the time required to close up businesses and places of work.

3. Departure from Home - Once home, the time required to assemble family members, to pack essential items for the evacuation, and to secure the home prior to their leaving.

4. Evacuation Travel Time - Once underway, the time required for the population to travel out of the affected area.

Each evacuation time component can be expressed graphically as a normal distribution curve where the height of any given point along the curve represents the percentage of the population completing that particular public response component at a given point in time. The response time curves representing the first three components, when combined, form the mobilization time distribution. Mobilization time is that period between the initial evacuation notification and the time that the person(s) leaves home. It is the mobilization time distribution which controls the rate at which vehicles enter onto the evacuation roadway network.

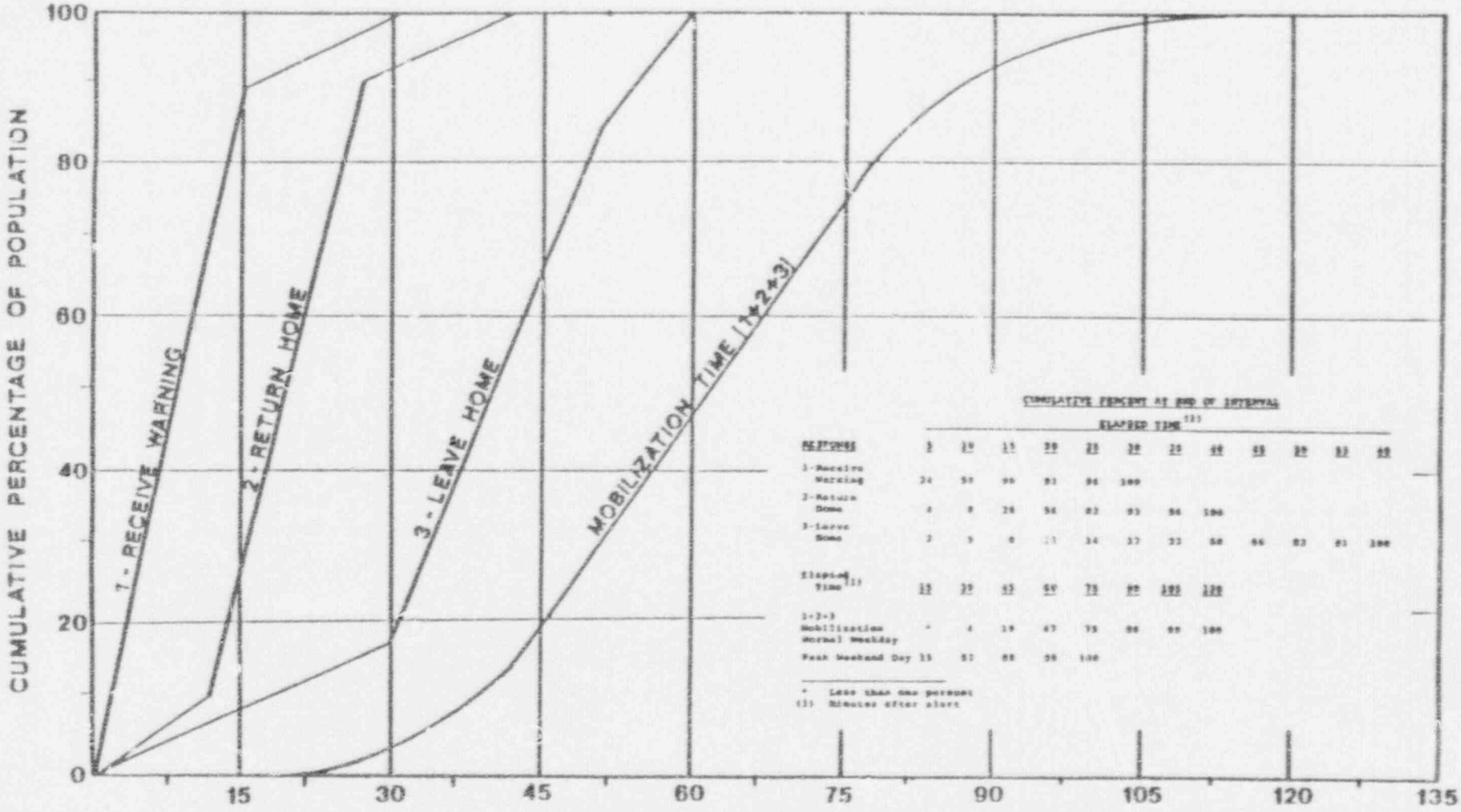
7.2 Notification and Preparation Times for General Public

In this study, three different mobilization distributions were developed, two to represent daytime public response on a normal weekday and on a peak weekend day, respectively, and a third to reflect a nighttime response. Public responses during the daytime scenarios would differ somewhat for transients (tourists/beach visitors, workers) and residents. For example, residents and some tourists registered in local hotel/motels would return home prior to evacuating, whereas many transient beach visitors and non-local workers would begin evacuating immediately. The individual and combined public response curves are illustrated in Figures 7 and 8 for the daytime and nighttime conditions, respectively.

The public response time information was combined with the actual travel time needed to travel from their origin point within the BEPZ to the BEPZ boundary. These total evacuation times are discussed below.

7.3 Site Area Emergency

A site area emergency is characterized by events involving actual or likely major failures of plant functions needed for protection of the public. Although



CUMULATIVE PERCENT AT END OF INTERVAL

ELAPSED TIME (1)

RESPONSE	5	10	15	20	25	30	45	60	75	90	105	120
1-Receive Warning	24	58	90	93	96	100						
2-Return Home	4	8	26	56	82	93	96	100				
3-Leave Home	2	5	8	13	24	37	72	90	96	98	99	100
Elapsed Time (1)	15	30	45	60	75	90	105	120				
1+2+3 Mobilization Normal Weekday	*	4	19	67	95	98	99	100				
Peak Weekend Day	13	51	88	98	100							

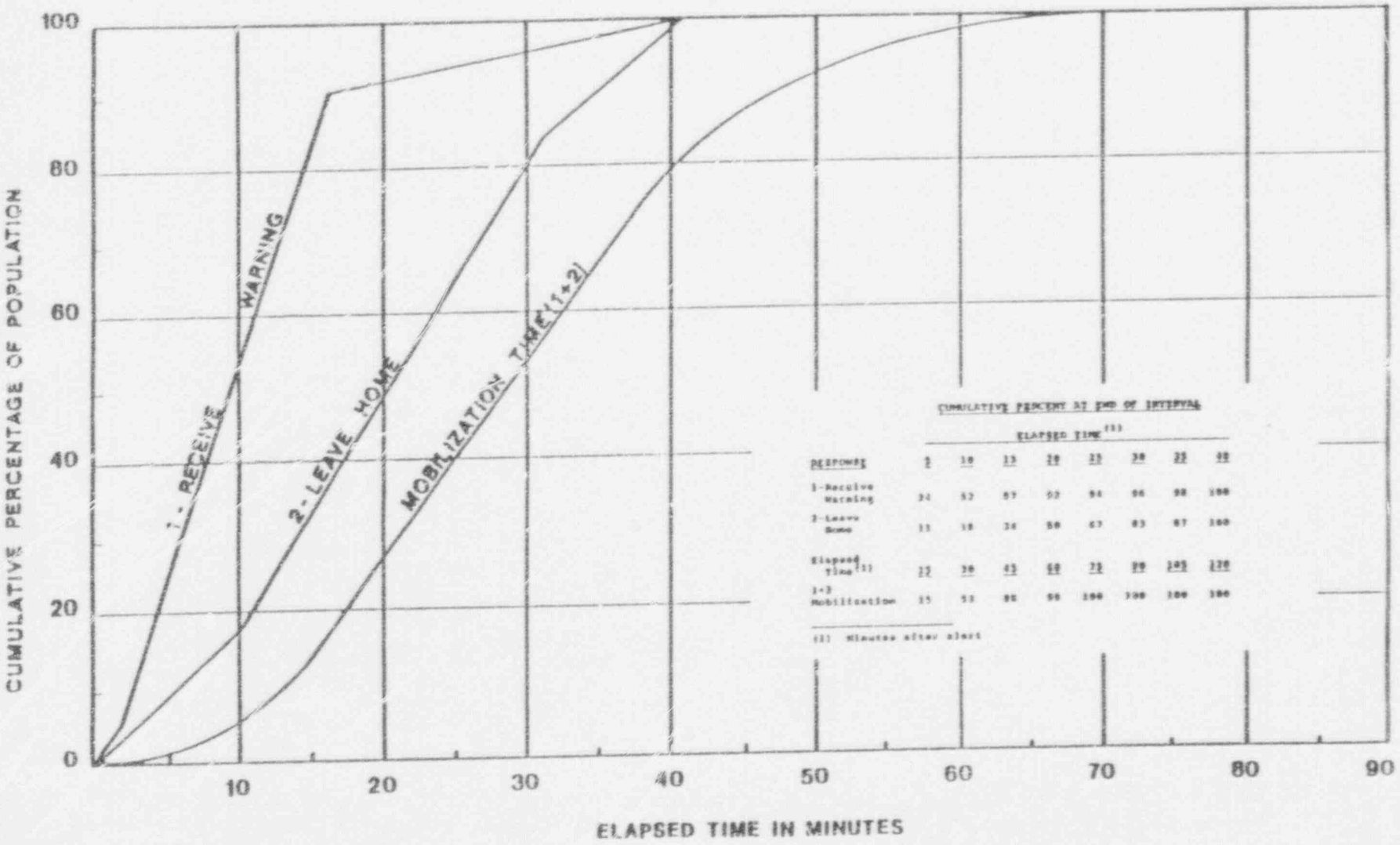
* Less than one percent

(1) Minutes after alert

ESTIMATED DAYTIME RESPONSES

Wilbur Smith and Associates

FIGURE 7



ESTIMATED NIGHTTIME RESPONSE

FIGURE 8

Wilbur Smith and Associates

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emergency actions involving members of the public may not be necessary, emergency response organizations will be mobilized. The Low Population Zone (LPZ) in the Power Plant vicinity may be evacuated. For Diablo Canyon Power Plant, this is the area inside the 6-mile distance ring, consisting of Protective Action Zones 1 and 2. Montana De Oro State Park, Pismo State Beach and Avila State Beach would be evacuated as a precaution and schools downwind from the plant would be closed or evacuated.

7.4 General Emergency

All events within this classification consitute situations where release of radioactive materials to the environment is imminent, or actually underway. Protective actions, possibly involving evacuation, will be necessary. Upon notification of a general emergency, emergency response personnel will be mobilized. Early Warning System sirens will be sounded and protective action instructions will be broadcast over the Emergency Broadcast System.

7.5 Alternative Evacuation Conditions

Depending on the specific nature of the emergency, and the overall assessment of the situation, and recognizing such factors as anticipated time interval to release, meteorological conditions and the other pertinent factors, evacuation measures may be initiated either for various sectors of the area, or for the entire BEPZ. For this analysis, evacuation time estimates were made for a total of nine different groupings of zones, representing various sectors of the BEPZ. Each condition was investigated to determine estimated evacuation time for each of the three scenarios (normal weekday; peak summer weekend day and nighttime) under fair weather conditions. The normal weekday scenario was also evaluated for an assumed adverse weather condition. In this case, roadway capacities were reduced by 15 percent, to simulate the altered travel conditions.

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(1) County Emergency Response Plan, pg. 1.4 (9).

7.6 Estimated Evacuation Times

Results of the analyses of evacuation time requirements for each evacuation condition and scenario are given in Table 11. It is assumed that traffic control authorities will accord priority access to buses and other high-occupancy vehicles (wheelchair vans, ambulances, etc.) required to make multiple evacuation trips. It is estimated that this procedure will enable the evacuation of persons requiring supplementary transportation to be completed within the time required for a general evacuation.

7.7 NRC Summaries

Table 12 gives the estimated population and number of evacuation vehicles for two-, six-, and ten-mile distance rings from the Diablo Canyon Power Plant, according to the summary format prescribed by the Nuclear Regulatory Commission. It also shows the evacuation times both for normal conditions and adverse weather.

7.8 Bottleneck Locations

The computer simulation of the evacuation process resulted in the identification of several bottleneck locations in the BEPZ, where traffic demand can be expected to exceed available capacity during a general evacuation, resulting in vehicle queues and delays. These are shown in Figures 9 and 10 for the Normal Weekday and Peak Weekend Day conditions, respectively. They are generally well known to local transportation officials as trouble-spot locations.

Delays can be expected at access points to U.S. 101 in San Luis Obispo, and along U.S. 101 on the Cuesta grade. South Bay Boulevard is another bottleneck, due to limited roadway capacity in the twin bridges area. California Route 1 in the Morro Bay area is also expected to be a delay location.

In the South portion of the BEPZ, delays are also indicated through the Five Cities area on both California Route 1, and U.S. 101.

Table 11

EVACUATION TIME ESTIMATES

BY CONDITION AND SCENARIO

EVACUATION CONDITION			EVACUATION SCENARIO			
			Normal	Peak		Adverse
Number	Sector	PAZs	Weekday	Weekend	Night	Weather(1)
			(Evacuation Time in Hours)			
1	Base	(1,2,3,4)	2.50 (2) 2.75 (3)	2.50 (2) 2.75 (3)	1.75(2) 2.00	2.50(2) 2.75
2	North	Base + (5)	4.75 (2) 5.00 (3)	4.50 (2) 5.00 (3)	4.25 (2) 4.75 (3)	5.50 (2) 6.00 (3)
3	North	Base + (5,9)	5.25	5.25	4.75	6.00
4	East	Base + (8)	5.00	5.25	4.25	5.75
5	North & East	Base + (5,8,9)	5.75	6.00	5.25	6.75
6	Southeast	Base + (6,7)	2.75	3.30	2.25	2.75
7	Southeast	Base + (6,7, 10,11)	5.50	6.75	5.00	6.25
8	Southeast	Base + (6,7, 10-12)	5.50	6.75	5.00	6.25
9	Entire BEPZ	(1-12)	6.00	6.75	5.25	7.00

NOTE: Nighttime evacuation was assumed to take place on a summer night, to maximize the presence of transients.

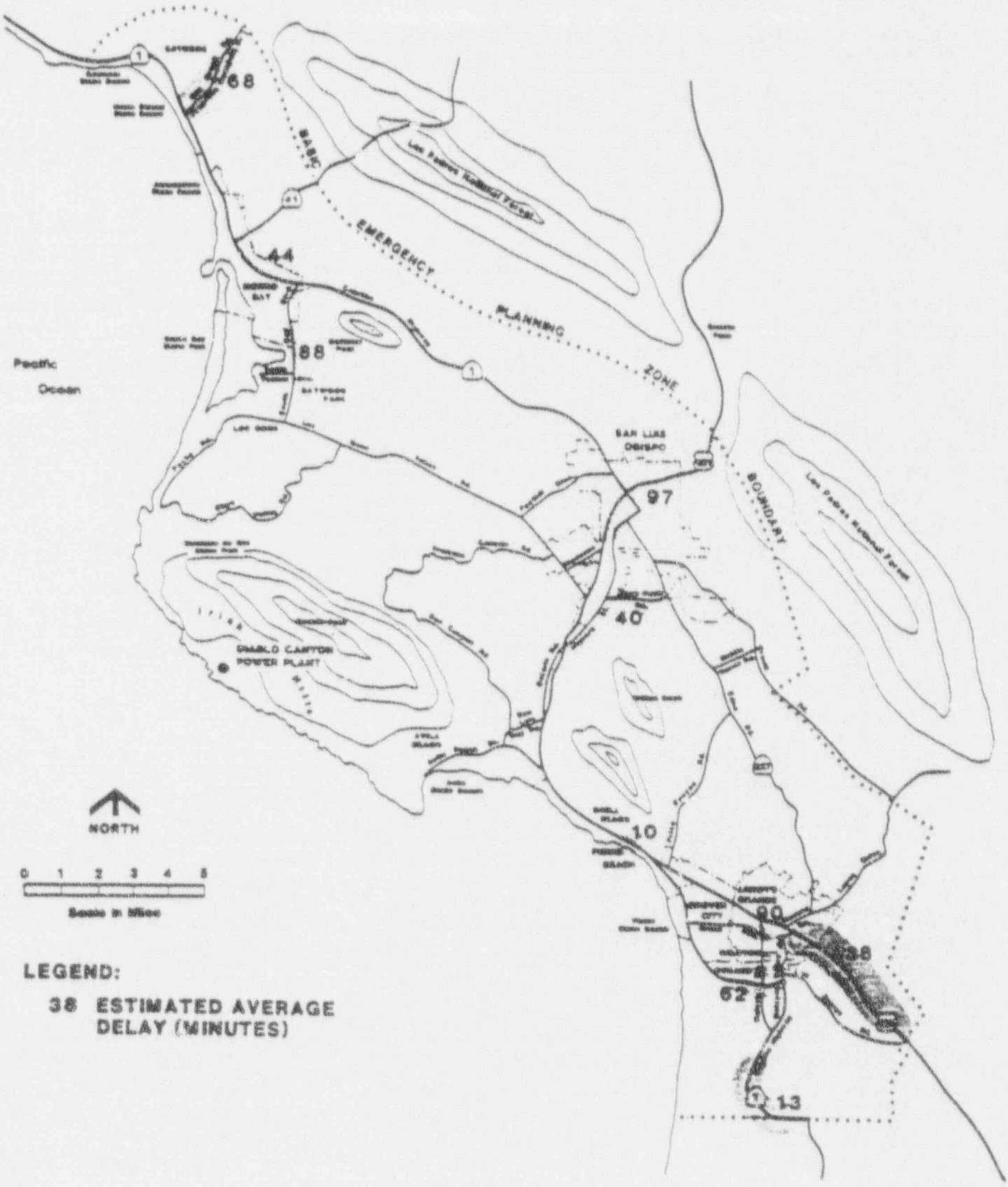
(1) Adverse weather assumes normal weekday traffic volumes.
(2) Time to clear 10 miles.
(3) Time to clear BEPZ.

Table 12

ESTIMATED POPULATIONS, VEHICLE DEMAND
AND EVACUATION TIMES BY EVACUATION AREAS

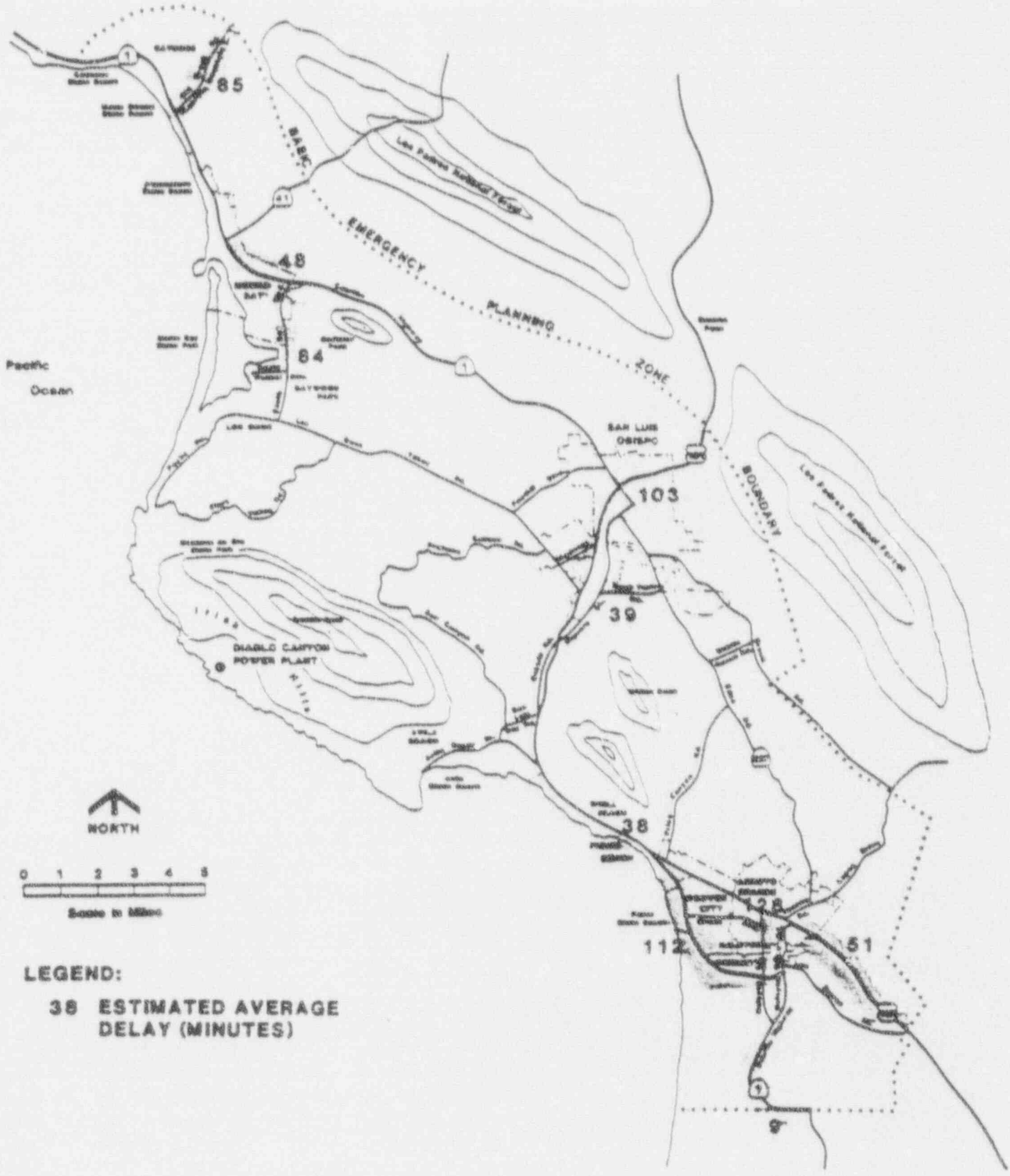
Peak Summer Weekend Day, 1985

EVACUATION AREA/PAZ	RESIDENT POPULATION	TRANSIENT POPULATION	TOTAL POPULATION	RESIDENT VEHICLES	TRANSIENT VEHICLES	TOTAL EVACUATING VEHICLES	ESTIMATED CUMULATIVE EVACUATION TIME (HOURS) NORMAL WEATHER	ESTIMATED CUMULATIVE EVACUATION TIME (HOURS) ADVERSE WEATHER
WITHIN 2 MILES								
2 Mile/1	4	1500	1504	3	900	903	2.75	2.75
0-2 Mile Total	4	1500	1504	3	900	903	2.75	2.75
WITHIN 6 MILES								
0-2 Mile Total	4	1500	1504	3	900	903	2.75	2.75
6 Mile/2	96	2370	2466	53	790	843	2.75	2.75
0-6 Mile Total	100	3870	3970	56	1690	1746	2.75	2.75
WITHIN 8-10 MILES								
0-6 Mile Total	100	3870	3970	56	1690	1746	2.75	2.75
Avila, San Luis Bay/3	1921	5400	7321	896	1800	2696	2.75	2.75
See Canyon, Los Osos Valley, Prefumo Canyon/4	406	0	406	179	0	179	2.75	2.75
Baywood, Los Osos/5	13,634	0	13,634	6373	0	6373	5.00	6.00
0-10 Mile Total	16,061	9270	25,331	7504	3490	10,994	5.00	6.00
WITHIN BEPZ BOUNDARY								
0-10 Mile Total	16,061	9270	25,331	7504	3490	10,994	5.00	6.00
City of Pismo Beach/6	5599	14,500	20,099	3330	6190	9520	5.00	6.00
Squire Canyon/7	79	0	79	41	0	41	5.00	6.00
San Luis Obispo/8	48,914	1800	50,714	17,518	1200	18,718	5.25	6.00
Morro Bay, Cayucos/9	15,185	9550	24,735	6470	3410	9880	5.75	6.75
Five Cities (Southern Portion)/10	27,400	19,570	46,970	12,278	6990	19,268	6.00	7.00
Orcutt Rd., Lopez Drive, Route 227/11	2832	0	2832	935	0	935	6.00	7.00
Nipomo, North of Willow Road/12	4424	210	4634	1796	160	1956	6.00	7.00
0-BEPZ Boundary	120,494	54,900	175,394	49,872	21,440	71,312	6.00	7.00



BOTTLENECK LOCATIONS
NORMAL WEEKDAY

FIGURE 9



BOTTLENECK LOCATIONS
PEAK SUMMER WEEKEND DAY

FIGURE 10

PROTECTIVE ACTION RECOMMENDATION FORM 191464

Date: ____/____/____ Time: _____ Form No. _____ Initiated by: ☐ UDAC ☐ PG&E

EMERGENCY CLASSIFICATION

☐ ALERT
☐ SITE AREA EMERGENCY
☐ GENERAL EMERGENCY

MET DATA

WIND DIRECTION (Draw Arrow)

360°/0° N
270° W – ⊕ – E 90°
S 180°

Wind Direction: _____ (from)
Wind Speed: _____ MPH

RELEASE DATA ☐ No Release ☐ Potential Release ☐ Imminent Release ☐ Release in Progress ☐ Release Terminated

(See attached Radiological Status Summary Sheet and/or EARS Update Form for more information.)

This column filled out by UDAC ONLY

UDAC

PROTECTIVE ACTION RECOMMENDATIONS

TO: COUNTY HEALTH OFFICER

FROM: UDAC COORDINATOR

Note: Evacuation of PAZs 1 and 2 required at GENERAL EMERGENCY.

EXPLANATION/COMMENTS: _____

_____ (Attach additional sheets if needed.)

IPZ RECOMMENDATIONS:

☐ Dairy herds on stored feed and water
☐ Embargo dairy products.
☐ Cease harvesting activities.
☐ Embargo field products.
☐ Secure pumping for affected reservoirs.

Describe affected areas: _____

_____ (Attach additional sheets if needed.)

PAZs Affected
E = Evacuation
S = Shelter
O = Other (Explain)
Circle New Recommendations

1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
☐ Other (Explain)	☐ Other (Explain)

☐ I make the above recommendation.

Signed: _____
UDAC Coordinator

This column filled out by PG&E ONLY

PG&E

PROTECTIVE ACTION RECOMMENDATIONS

TO: COUNTY HEALTH OFFICER
FROM: PG&E RECOVERY MANAGER/ SITE EMERGENCY COORDINATOR

Note: Evacuation of PAZs 1 and 2 required at GENERAL EMERGENCY.

EXPLANATION/COMMENTS: _____

_____ (Attach additional sheets if needed.)

☐ I concur with UDAC's recommendation, OR;
☐ I make the above recommendation.

Signed: _____
Site Emergency Coordinator/Recovery Manager

White - UDAC Coordinator
Pink - County Health Office
Yellow - PG&E Recovery Manager/SEC
Green - PG&E Advisor to the County
Copy to: PG&E Radiological Manager
State Liaison to EOC

SAN LUIS OBISPO COUNTY

NUCLEAR POWER PLANT

EMERGENCY RESPONSE PLAN

STANDARD OPERATING PROCEDURE

III.06 HP-8

Area and Equipment Decontamination

SAN LUIS OBISPO COUNTY ENVIRONMENTAL HEALTH DEPARTMENT

REVISED:

JUNE 1989
AUGUST 1991
MARCH 1992

AUTHENTICATION

This Standard Operating Procedure has been approved and is hereby incorporated as a department procedure:

Signed and Accepted:

Tim Mayberry
Name

Environmental Health Director
Title

5/19/92
Date

PREFACE

This SOP comprises Section III.06 HP-8 of the San Luis Obispo County Nuclear Power Plant Emergency Response Plan. Detailed preparedness measures and emergency procedures concerning the operation of this organization are included herein. Part I of the Plan describes the over all County emergency organization and response, while Part II includes Implementing Instructions to be used by the County Direction and Control group and other key officials and the County Emergency Center (EOC), in directing the emergency response activities.

SAN LUIS OBISPO COUNTY
OFFICE OF EMERGENCY SERVICES

REVISION PAGE

DESCRIPTION			*DATE*
Original Document			Unk.
Complete Revision			06/89
Complete Revision			08/91
Complete Revision:	1.	Annual editorial update; addition of Revision, Distribution, and Cross Reference pages.	03/92
	2.	Change decontamination threshold to 200 CPM greater than background on a CDV 700.	
	3.	Addition of new worker protective clothing items (hoods, face shields, masks).	
	4.	Correct site name from "Rancho El Chorro" to "El Chorro" park/campground.	

SAN LUIS OBISPO COUNTY
OFFICE OF EMERGENCY SERVICES

SOP COPY DISTRIBUTION

SOP NO. III.06 TITLE HP-8, Equipment Decontamination REV. DATE 03/92

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Original	1	OES File	
Working Copy	1	OES File	
EOC	1	Agency Binder; D&C, CHO	
	1	D & C File Cabinet	
	1	Master Binder, County Room	
PG&E	2	To Sanitize and Distribute	
Dept./Agency	1	Emergency Worker Decon Facility Coordinator Binder	
	1	CDF - 3401	
	1	CDF - 3406	
	1	Emergency Worker Decon Facility HP-9 Binder	
	3	County Fire Station 12 (Station Copy, 2X Engin. Copy)	
	2	County Fire Station 11 (Station Copy, Engin. Copy)	
	1	Santa Barbara County OES	
	1	Santa Maria Fire Department	
Diskette	1	OES Original File	

DUPLICATION QUANTITY [17]

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OFFICE OF EMERGENCY SERVICES

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H.11 Emergency Equipment Lists	Checklist 1
K.3 EWEO	HP-11
K.5.a. Decontamination Threshold	A.3.
K.5.b. Decontamination Procedures	Checklists 3, 4, 5
N. Exercises and Drills	F.2.
O. Training	F.1.
P. Planning Updates	E.

SECTION I - OVERVIEW

A. INTRODUCTION

1. PURPOSE

This procedure provides instructions for the handling of contaminated areas, equipment, and vehicles following a radiological release. Criteria for identifying contamination and methods of decontamination are provided. Procedure SLO HP-4, "Instructions for Performing Basic Radiation Surveys," should be consulted for directions on survey instrument use. Evacuee monitoring and decontamination is covered in HP-7, emergency worker monitoring and decontamination is covered in HP-9, vehicle monitoring is in HP-6, and Emergency Worker Exposure Control in HP-11.

This procedure will generally be performed as part of the re-entry and recovery actions of the emergency, and should not take precedence over vital emergency response actions.

2. OBJECTIVES

The objectives of this procedure are delineated by the five attached checklists which provide guidance for the tasks involved in area and equipment decontamination. These tasks are:

Maintaining an appropriate inventory of supplies (Checklist 1)

Performing contamination surveys (Checklist 2)

Decontamination of equipment (Checklist 3)

Decontamination of vehicles (Checklist 4)

Decontamination of areas (Checklist 5)

3. OVERVIEW

Area Decontamination

A radioactive release from a severe nuclear power plant accident could result in the deposition of radioactive material on surfaces, especially near the plant site. Most area decontamination activities would be performed during recovery and re-entry operations which will be directed by State and Federal agencies. It is possible, however, that during the initial response phase of the emergency, some areas necessary for emergency response might become contaminated. This procedure will serve as a guide for decontamination of these areas.

Equipment Decontamination

Emergency response or other important equipment could also become contaminated as a result of a severe release of radioactive material. If necessary, a monitoring and decontamination facility would be established at El Chorro Regional Park under the direction of the County Health Officer.

Emergency Vehicles

Police, fire, and other County emergency vehicles may become contaminated during emergency activities in affected areas. County vehicles would be decontaminated at an appropriate location at El Chorro Regional Park, off Highway 1, near the Emergency Operations Center. Decontamination of emergency vehicles will generally be performed during recovery and re-entry operations.

Action Levels

The threshold for initiating decontamination is 200 CPM above background. If it is not practical to decontaminate, or, despite decontamination efforts, radiation levels cannot be reduced below 200 CPM above background, the areas or equipment must be considered "restricted," i.e., off limits for contact by members of the general public. Equipment or materials remaining contaminated may ultimately need to be physically removed and treated as radioactive waste.

B. RESPONSIBILITIES

1. DIRECTOR OF ENVIRONMENTAL HEALTH

The Director of Environmental Health will fill the position of UDAC Coordinator during severe emergencies. In this position he advises the County Health Officer on radiological aspects of the emergency and suggests protective measures. If important areas, equipment, or vehicles are found to be contaminated in the field, he should brief the County Health Officer on that situation and:

1) For contaminated areas, assign a Deputy Health Officer, and request PG&E radiological assistance, and initiate area decontamination using the guidance of checklist 5.

2) For contaminated equipment or vehicles, request activation of the decontamination facility at El Chorro Regional Park, request radiological assistance from PG&E, and assign a Deputy Health Officer to assist with decontamination.

2. DEPUTY HEALTH OFFICERS

If the El Chorro Regional Park decontamination facility is to be activated, the Director of Environmental Health should designate one or several Deputy Health Officers to go to El Chorro Regional Park and provide monitoring and decontamination assistance along with the PG&E radiological support. The Deputy Health Officer may be a member of the UDAC staff, or a field monitoring team, depending on the emergency conditions.

3. OTHER AGENCIES

The California Department of Health Services, Radiological Health Branch, will provide guidance on handling and disposal of contaminated waste, and follow-up of contaminated emergency workers.

The Pacific Gas and Electric Company will provide radiation monitors and radiation protection personnel to supplement County Deputy Health Officers and provide technical advice, where requested.

The US Department of Energy, through their FRMAP plans, can provide assistance in monitoring when requested by the State Office of Emergency Services.

The San Luis Obispo County Fire Department/CDF will provide personnel to assist with vehicle decontamination.

C. CONCEPT OF OPERATIONS

1. GENERAL

This procedure covers initial decontamination efforts using manual cleaning techniques and common cleaning agents. Persistent contamination on valuable equipment or areas that must be occupied may be removed using more aggressive techniques, such as ultrasonic cleaning, high pressure water or steam, grinding, or sand blasting. These techniques are employed on a case-by-case basis, and should only be used with adequate radiological controls.

2. SURVEYS

Following a significant release of radioactivity, all emergency workers and equipment who may have been in the affected areas should be surveyed to determine if any contamination exists. These surveys should be performed according to the guidelines of Checklist 2 of this procedure, and with the guidance of procedure HP-4, "Instructions for Performing Basic Radiation Surveys." Decontamination should be performed when levels above those in Table 1 are detected.

3. DECONTAMINATION OF EQUIPMENT

Equipment decontamination will generally be a function of the recovery and re-entry phase of the emergency. When contaminated equipment has been identified by surveys, the Director of Environmental Health should initiate decontamination actions as described in Checklist 3 of this procedure.

4. DECONTAMINATION OF VEHICLES

Decontamination of emergency vehicles will generally be initiated during the recovery phase of the emergency since their response in the affected areas may be necessary, and must take precedence over decontamination. If surveys of emergency vehicles indicate contamination, the Director of Environmental Health should initiate decontamination actions as described in Checklist 4 of this procedure.

5. AREA DECONTAMINATION

Area decontamination will also generally take place during the recovery phase, under state and federal supervision, although if decontamination is found to be necessary in areas important for emergency response, the Director of Environmental Health should initiate decontamination actions as described in Checklist 5.

D. COMMUNICATIONS, FACILITIES, EQUIPMENT AND SUPPLIES

1. FACILITIES

During emergencies which would require the decontamination of offsite areas and equipment, the County Health Officer and the Director of Environmental Health are located at the County Emergency Operations Center, 1525 Kansas Ave., San Luis Obispo.

The El Chorro Regional Park decontamination facility is located Northwest of the Emergency Operations Facility. This facility would serve as the primary location for equipment and vehicle decontamination.

2. COMMUNICATIONS

Telephone would be the primary communication mode between the EOC and the El Chorro Regional Park decontamination facility. A backup communication capability exists with the mobile radio units in County Environmental Health vehicles and PG&E vehicles used for environmental monitoring. These radios can maintain communications with the EOC via the transceiver base station unit located in the UDAC. ARES/RACES can also assist.

3. EQUIPMENT AND SUPPLIES

Decontamination equipment and supplies are stored at County Building 1200. These include survey instruments and supplies to support basic decontamination activities during emergencies. Equipment and available supplies are listed in Checklist 1.

E. PROCEDURE MAINTENANCE

This procedure will be reviewed annually and revised as necessary under the supervision and authority of the Director of Environmental Health in conjunction with the San Luis Obispo County Office of Emergency Services.

F. TRAINING AND DRILLS

1. TRAINING PROGRAMS

County Deputy Health Officers and PG&E radiation protection technicians receive annual training in radiation monitoring and through participation in various drills.

2. DRILLS AND EXERCISES

As a part of their role in the County's Emergency Response Organization, the Environmental Health Department will participate in periodic drills and exercises. Each of these events is designed to simulate an actual emergency, and provide feedback on performance through critiques held afterwards.

G. REFERENCES

- FEMA Letter of January 1989 regarding Decontamination Runoff
- DCPP EP RB-6, "Area and Equipment Decontamination"

CHECKLIST 1 - Page 1 of 2

INVENTORY OF SUPPLIES

PURPOSE

The purpose of this checklist is to document the store of decontamination supplies at County Building 1200 for periodic inventories to ensure the supplies are maintained. Supplies are provided by PG&E unless noted otherwise.

SUPPLIES

1. Radiation Monitoring Equipment

   ___ See HP-7 and HP-9.

2. Contaminated Solid Waste Disposal Supplies

   _____ 2 large plastic garbage cans (1 for vehicle monitoring, 1 for vehicle/equipment decon)

   ___ 1 roll of plastic trash bags, 38" X 65" X 8 mil, yellow, printed with "CAUTION - RADIOACTIVE MATERIAL" and radiation trefoil

3. Equipment and Vehicle Decontamination Supplies

   ___ 200 ft. of fire hose

   ___ 1 fire hose nozzle

   ___ 1 fire hose thread reducer, 2-1/2" NH to 1" NSP

   ___ 2 plastic pails

   ___ 4 long handled sponge mops/brushes

   ___ 2 boxes/bottles detergent/soap

   ___ 2 pkg. "Handi Wipes" or equivalent

   ___ 50 cleaning rags

CHECKLIST 1 - Page 2 of 2

4. Protective Clothing

___ 10 pair anti-C coveralls

___ 10 pair anti-C shoe covers

___ 10 head covers

___ 20 disposable particle masks

___ 15 face shields

___ 4 rolls masking tape, 1-1/2"

5. Miscellaneous

___ 12 radiation signs

___ 2 boxes surgical gloves

___ 3 rolls duct tape

___ radiation barrier rope

6. Office supplies

___ pens

___ markers

___ 2 clipboards

CHECKLIST 2 - Page 1 of 1

CONTAMINATION SURVEYS

PURPOSE

This procedure sets the basic guidelines for surveys performed prior to decontamination.

PROCEDURE

___ Identify potential contaminated areas by tracking the path of the radiological release.

___ Survey the appropriate areas, equipment, or vehicles using the methods of procedure SLO HP-4.

___ Record on a map, or rough drawing, the approximate locations of contaminated areas and the detected contamination levels present.

___ The threshold for decontamination is 200 CPM above background.

CHECKLIST 3 - Page 1 of 2

DECONTAMINATION OF EQUIPMENT

PURPOSE

This procedure sets the basic guidelines for equipment decontamination.

PROCEDURE

___ Consult with the PG&E Health Physics support personnel for guidance on radiological protection required for the contamination levels observed. For high level contamination, respiratory protection and air sampling may be necessary.

___ Establish priorities for equipment to be decontaminated. Begin with the most urgently needed.

___ Ensure that the supplies listed in Checklist 1 are available, and that they are adequate for the anticipated job. If not contact the County Health Officer Operations Center (CHO OPS) to arrange for needed supplies.

___ Don protective clothing, including coveralls, hood, gloves, shoe covers, and face shields. Don plastic Anti-C's if you will be using liquids for decontamination agents.

___ Set up a controlled area for decontamination, and establish access control.

___ Provide containers for contaminated materials. Many materials are not worth decontaminating. These materials can be bagged immediately as contaminated trash.

___ DO NOT mix contaminated and "clean" trash, and ensure that contaminated trash is labeled and retained for proper disposal by PG&E. Do not give it to commercial trash haulers.

___ Vacuuming wet or dry is generally effective in removing loose particulate contamination and is an effective initial decontamination step prior to manual cleaning. Vacuum systems should be properly filtered to prevent the spread of contamination to surrounding areas and to reduce the hazard of airborne contamination. Vacuum cleaners are not maintained as emergency equipment. They should be obtained from PG&E if needed.

___ If the equipment to be decontaminated is small, prepare a solution of detergent, and using a rag, thoroughly wipe the surface where contamination was detected. Decontaminate the areas with the highest readings first. DO NOT put contaminated rags back into the cleaning solution. Runoff of

decontamination solution may be channeled to a sewage system, but should not be allowed to run directly into a source of drinking water.

CHECKLIST 3 - Page 2 of 2

___ For larger equipment, wash down with a water spray and then scrub with sponge mops/brushes and rinse with water spray. Use caution with high levels of contamination, and change the decontamination solution frequently to avoid spreading contamination.

___ If contamination levels cannot be reduced below 200 CPM above background, the equipment should be bagged or covered if feasible, or kept in an area where access can be restricted. Notify the CHO immediately if important equipment cannot be decontaminated.

___ Following decontamination, survey the controlled area and decontaminate if necessary. If clean, release the area.

___ Notify the CHO of the final status of the equipment and the area.

CHECKLIST 4 - Page 1 of 1

DECONTAMINATION OF VEHICLES

PURPOSE

This procedure sets the basic guidelines for vehicle decontamination.

PROCEDURE

Follow the steps of Checklist 3, and use the following additional guidance:

____ Ensure that the exterior of the vehicle has been surveyed completely before beginning decontamination.

____ Accessible parts of the engine compartment, especially the air filter, and the wheel wells and tires should be carefully surveyed.

____ Following decontamination of vehicle interiors, leave the windows open to promote drying and clearance of any contamination during drying.

____ Take particular care to survey and decontaminate if necessary the surfaces and weather stripping around door jambs and trunk lids.

____ Decontamination solution runoff may be directed into a sewage system, but should not be allowed to run directly into a source of drinking water.

CHECKLIST 3 - Page 1 of 2

AREA DECONTAMINATION

PURPOSE

This procedure sets the basic guidelines for decontaminating areas that need to be occupied. Area decontamination would normally not be done until the recovery phase, with State and Federal assistance.

PROCEDURE

___ Consult with the PG&E Health Physics support personnel for guidance on radiological protection required for the contamination levels observed. For high level contamination, respiratory protection and air sampling may be necessary.

___ Control access to contaminated areas using postings and barrier ribbon or rope. Request law enforcement assistance when necessary.

___ Establish priorities for locations to be decontaminated. Begin with the most urgently needed.

___ Within locations, decontaminate the areas with the highest levels of contamination first.

___ Ensure that the supplies listed in Checklist 1 are available, and that they are adequate for the anticipated job. If not, contact the CHO to arrange for needed supplies.

___ Don protective clothing, including coveralls, hood, gloves, shoe covers, and face shields. Don plastic Anti-C's if you will be using liquids for decontamination agents.

___ Provide containers for contaminated materials.

___ DO NOT mix contaminated and "clean" trash, and ensure that contaminated trash is labeled and retained for proper disposal by PG&E. Do not give it to commercial trash haulers.

___ If indoors, ensure that the area to be decontaminated has adequate ventilation. Open all windows, if possible.

___ Vacuuming, wet or dry, is generally effective in removing loose particulate contamination and is an effective initial decontamination step prior to manual cleaning. Vacuum systems should be properly filtered to prevent the spread of contamination to surrounding areas and to reduce the hazard of airborne contamination.

CHECKLIST 5 - Page 2 of 2

___ Prepare a solution of detergent and use it as a mopping solution for floors, or on rags for hand wiping of other surfaces. Decontaminate the areas with the highest readings first. DO NOT put contaminated rags back into the cleaning solution. Change mop bucket solution frequently in high contamination areas to avoid spreading contamination.

___ Decontamination solution runoff may be directed into a sewage system, but should not be allowed to run directly into a source of drinking water.

___ If contamination levels cannot be reduced below 200 CPM above background, access to the area should be restricted, and the area should be posted as a contaminated area. Notify the CHO immediately if important areas cannot be decontaminated.

___ As a result of decontamination, if levels are reduced below 200 CPM above background, the area may be considered "clean" and released for use.

___ Notify the CHO of the final status of all areas decontaminated.

191464

SAN LUIS OBISPO COUNTY

NUCLEAR POWER PLANT

EMERGENCY RESPONSE PLAN

STANDARD OPERATING PROCEDURE

III.C6, HP-12

UNIFIED DOSE ASSESSMENT CENTER

SAN LUIS OBISPO COUNTY ENVIRONMENTAL HEALTH DEPARTMENT

REVISED:

JULY 1989
AUGUST 1991
MAY 1992

D:\WP51\DOC\NPPSOPS\COUNTY\EHHP\HP-12.W 05

AUTHENTICATION

This Standard Operating Procedure has been approved and is hereby incorporated as a department procedure:

Signed and Accepted:

Tim Mazzeano
Name

Environmental Health Director
Title

5/19/92
Date

PREFACE

This SOP comprises Section III.06 HP-12 of the San Luis Obispo County Nuclear Power Plant Emergency Response Plan. Detailed preparedness measures and emergency procedures concerning the operation of this organization are included herein. Part I of the Plan describes the overall County emergency organization and response, while Part II includes Implementing Instructions to be used by the County Direction and Control group and other key officials and the County Emergency Operations Center (EOC), in directing the emergency response activities.

SAN LUIS OBISPO COUNTY
OFFICE OF EMERGENCY SERVICES

REVISION PAGE

DESCRIPTION			*DATE*
Original Document			Unk.
Complete Revision			07/89
Complete Revision			08/91
Complete Revision:	1.	Annual Editorial Update	05/92
	2.	Addition of Revision, Distribution, and Cross Reference Pages	
	3.	Form B, "Protective Action Recommendation", forms combined into single page	
	4.	Form A, "Radiological Status Form" reformatted	
	5.	Page 1; notification process clarified	
	6.	B.7, APCD; responsible for update of MET STATUS Board in D&C, in accordance with APCD SOP	
	7.	Checklist 1; clarified routing of PAR form	

SAN LUIS OBISPO COUNTY
OFFICE OF EMERGENCY SERVICES

SOP COPY DISTRIBUTION

SOP NO. III.06, HP-12 TITLE HP-12, UDAC REV. DATE 05/92

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Dept./Agency	1	Director, Environmental Health	
	1	UDAC Binder	
	1	CA OES	
	1	CA DHS	
Diskette	1	OES Original File	

DUPLICATION QUANTITY [10]

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A. INTRODUCTION

1. PURPOSE

This procedure describes the responsibilities and functions of the Unified Dose Assessment Center (UDAC) during nuclear emergencies at the Diablo Canyon Power Plant (DCPP).

2. OBJECTIVES

Specific operating instructions are given in checklists covering the important task of determining recommended protective actions for the public, as well as checklists for each of the County positions in the UDAC. The basic responsibilities of each of these are outlined in the RESPONSIBILITIES section, below.

3. OVERVIEW

The UDAC has been established to provide a central point for offsite radiological data assessment for both the plume and ingestion exposure pathways by representatives of local, state, and federal government, and the utility, PG&E. On the basis of these assessments, recommendations for appropriate protective actions for the general public will be made to the San Luis Obispo County Health Officer and to state officials located at the County Emergency Operations Center (EOC) and/or the State Operations Center (SOC) in Sacramento.

UDAC is staffed by representatives of San Luis Obispo County, California Office of Emergency Services, California Department of Health Services (Radiological Health Branch), US Department of Energy, US Environmental Protection Agency, and PG&E.

The UDAC organization is defined as follows:

UDAC Coordinator	Director, Environmental Health
Asst. UDAC Coord.	Deputy Health Officer
UDAC Staff	Reps. of the following:
	1 SLO County Air Pollution Control District
	1 State OES
	1 State DHS RHB
	1 County Agriculture Comm.
	2 PG&E
	1 US DOE/EPA/NRC

The mechanism for notification of the UDAC Coordinators and County staff in the event of an emergency is outlined in the San Luis Obispo County Notification Procedures. Other UDAC members are notified by their respective agencies.

Prior to the arrival of representatives of State DHS RHB and OES at the UDAC, technical assistance and advice is available by telephone from representatives of these organizations at the State Operations Center, Sacramento.

B. RESPONSIBILITIES

1. UDAC COORDINATOR

The following are the basic responsibilities of the UDAC Coordinator:

-> Direction and coordination of all UDAC assessment activities.

-> Liaison and communications with the PG&E Emergency Operations Facility (EOF) through the EOF Radiological Manager.

-> Liaison and communication with the County Health Officer located at the EOC.

-> Recommendation of appropriate protective actions for the general public to the County Health Officer.

-> Recommendation to the County Health Officer for consideration of stable iodine thyroid blocking for emergency workers, confined, or unevacuated populations.

-> Request monitoring and/or assessment assistance from DOE through State OES or National Weather Service.

-> Direct County environmental field monitoring teams, including arrangement for transport of samples collected by field teams for analysis.

-> Direct decontamination of vital areas and equipment where necessary during the plume phase of the emergency.

-> Overall responsibility for recovery/reentry, as needed.

2. ASSISTANT UDAC COORDINATOR

The following are the basic responsibilities of the Assistant UDAC Coordinator.

-> Assist and advise the UDAC Coordinator and, in his absence, assume the duties of UDAC Coordinator.

-> Assign duties to the UDAC staff.

-> Prepare status reports of UDAC activities for the UDAC Coordinator, including drafting the recommended protective actions for the general public, as necessary.

3. COUNTY UDAC STAFF

The UDAC staff will perform assignments as directed by the Assistant UDAC Coordinator. These will include:

-> Verification of EARS dose calculations

-> Calculation of projected doses for locations of interest

-> Calculation of plume travel time for airborne releases of radioactive material.

-> Comparison of projected and/or actual doses to the Protective Action Guides

-> Drafting proposed protective action recommendations.

4. PG&E REPRESENTATIVES

One PG&E member will collate all radiological information and provide interpretation, as needed, for the UDAC staff; assist in directing field monitoring teams; provide direction for dose calculation activities; maintain a chronological file of dose projections, field team data, and EARS output for comparison; calculate total population exposures on a periodic basis.

One PG&E member will calculate projected doses for locations of interest; calculate plume travel time for airborne releases; correlate projected and actual doses (both from EARS and field team data) to Protective Action Guides; assist in drafting protective action recommendations.

5. STATE DHS RHB REPRESENTATIVE

The State DHS RHB representative will perform independent verification of dose projections and coordinate with the UDAC Coordinator and County Agricultural Commission Representative on Ingestion Pathway Zone (IPZ), assessment and protective action recommendations, and recovery/reentry responsibilities.

6. STATE OES REPRESENTATIVE

The State OES representative will verify calculations performed by other UDAC staff and assist in developing protective action recommendations based on calculations and round table discussion with PG&E, DHS RHB representatives, Assistant UDAC Coordinator, and other UDAC staff.

7. SLO COUNTY AIR POLLUTION CONTROL DISTRICT REPRESENTATIVE

The APCD representative will obtain meteorological data from the National Weather Service, provide long term and macrometeorological data which is pertinent to dose assessments and/or protective action recommendations, coordinate with the PG&E meteorologist, and maintain the meteorological status board in the UDAC and in Direction and Control.

8. SLO COUNTY AGRICULTURAL COMM. REPRESENTATIVE

The Agricultural Commission representative will coordinate and support IPZ responsibilities with the State DHS RHB and the UDAC Coordinator, maintain status boards on field monitoring data, emergency status, and radiological status, and assist the UDAC Coordinator as other assignments may be required.

9. US DOE/EPA OR OTHER SUPPORT REPRESENTATIVES

These personnel will assist and coordinate with the UDAC Coordinator all outside support activities, including FRMAP, which would facilitate the duties and functions of UDAC, including aerial monitoring, field monitoring in support of plume pathway activities, IPZ monitoring, and recovery/reentry.

10. CLERICAL SUPPORT

Clerical support personnel consist of both County and PG&E personnel, and perform the following functions:

-> Maintain incoming and outgoing UDAC information logs with specific information as to time of entry/exit, origin, and description of content as applicable.

-> Provide all incoming information to the UDAC Coordinator after duplicating appropriate numbers for central copy file, staff, and data boards.

-> Type all outgoing information, recommendations, or requests as required.

C. CONCEPT OF OPERATIONS

1. ACTIVATION

The UDAC is activated along with the PG&E Emergency Operations Facility (EOF), the County Emergency Operations Center (EOC), and the onsite Technical Support Center (TSC) upon the declaration of an Alert or greater emergency classification at the Diablo Canyon Power Plant. The County's UDAC staff will be notified via telephone or pager if at home, or via radio or pager if in the field, to immediately report to the UDAC for activation.

PG&E permanent UDAC staff will be dispatched from the company's general office upon notification of the emergency by Diablo Canyon. An interim PG&E staff will be dispatched from Diablo Canyon, and will operate in cooperation with the County's staff prior to arrival of the permanent staff.

2. INFORMATION FLOW

All information entering UDAC will be logged by a clerk with specific reference to time of entry, origin, and a brief description of contents. All information will be duplicated with copies going to central copy file and copies going to status board transcriber, via the UDAC Coordinator. Copies will also go to data clipboards maintained at the calculation tables. The SLOCO Agriculture Commissioner's Office representative will transfer all appropriate data to status boards and provide copies of information to be announced by the UDAC Coordinator to the UDAC staff.

The APCD representative in UDAC will acquire, from offsite independent sources, information relative to meteorological conditions which have a direct bearing on the assessments and recommendations being generated in UDAC. All such information shall be logged into the "incoming log" in UDAC and copies will be provided to the UDAC Coordinator, status board transcriber, and to the data clipboards located at calculation tables.

As assigned by the Assistant UDAC Coordinator, County and PG&E staff will perform dose calculations. State OES personnel will assist as appropriate and will verify all calculations. All calculations will be completed on the "Offsite Dose Calculation Form (Form HP-1) and signed by the persons who performed and verified the calculations. All completed worksheets will be maintained, in order of completion, in "Completed Worksheet" baskets at the calculation tables. In the event that the EARS computer is unavailable, the "Radiological Status Form" (Form A) will accompany the "Protective Action Recommendation Form" (Form B).

All field team information will be transcribed onto the "Offsite Field Monitoring Data Communications Form" (Form C) by the UDAC radio operator. Copies will be made for central copy file and status board transcriber, who will plot field monitoring data on the wall map and maintain information on the appropriate status boards. The field teams will be directed by the PG&E Radiological Monitoring Director with overall direction by the UDAC Coordinator.

Upon completion and verification of dose assessment calculations, a round table discussion, involving the appropriate UDAC staff members and headed by the Assistant UDAC Coordinator, will follow with the single purpose of providing appropriate protective action recommendations for the EOC Direction and Control Group. Based on this discussion, the Assistant UDAC Coordinator will draft a recommendation (Form B) that reflects the consensus of the staff, but also includes dissenting opinions, if any. This recommendation will be

provided to the UDAC Coordinator for consideration. The UDAC Coordinator's recommendations will be provided to the EOF and EOC. A copy of the recommendations or request for other information will be logged in the exit log with reference to the time of exit and a brief description of its contents. All outgoing information will be signed by the UDAC Coordinator, or the Assistant UDAC Coordinator in his absence. Copies of all recommendations will go to the EOC through the County Health Officer and to the EOF through the PG&E EOF Radiological Manager.

D. FACILITIES, COMMUNICATION, AND EQUIPMENT

1. FACILITIES

The UDAC is located at the County Emergency Facility, 1525 Kansas Ave., off Highway 1 in San Luis Obispo. This facility is equipped with the assessment and communications equipment necessary to respond to a major radiological incident, and support facilities for food preparation, sleeping, and bathing that permit continuous staffing during extended emergencies. A floor plan of the UDAC is included in Figure 2.

2. COMMUNICATION

Communications with the EOF and EOC will generally be conducted via the internal telephone system in the County Emergency Facility. Communications with field monitoring units will be conducted via radio communications over the PG&E "Health Physics" channel or county UHF Local Government (Purple Net). Other communications will generally use the commercial telephone network, with Amateur Radio (RACES/ARES) as backup.

3. OPERATIONAL EQUIPMENT

UDAC operational equipment includes various calculation and assessment tools. The primary dose assessment tool is the Emergency Assessment and Response System (EARS). EARS is connected with the HP-1000 computer at Diablo Canyon which provides real time data on the plant's radiation monitors and meteorological instruments, allowing dose projections based on actual current plant data. EARS also allows dose projections based on theoretical releases as analyzed by the Final Safety Analysis Report (FSAR). Manual calculations are facilitated by several hand calculators maintained for UDAC staff use.

Meteorological information is available from data links with the DCPP instruments. An advanced model of the plant environs allows the PG&E meteorologist to make more accurate predictions of radioactive material transport in the atmosphere.

E. PROCEDURE MAINTENANCE

This procedure will be reviewed annually, and revised as necessary under the supervision and authority of the Director, Environmental Health in conjunction with the San Luis Obispo County Office of Emergency Services.

F. DRILLS AND TRAINING

UDAC personnel receive annual training in the requirements of this procedure and other relevant procedures, including manual dose assessment. As part of this training, the UDAC staff participates in periodic drills and exercises. Each of these events is designed to simulate an actual emergency, and provide feedback on performance through critiques held afterwards. Routinely scheduled events include the DCPP Annual Field Exercise, Exercise Dress Rehearsal, and UDAC facility drill.

CHECKLIST 1

UDAC COORDINATOR

This checklist is designed to provide guidance to the UDAC Coordinator for activation and operation of the UDAC facility.

Activation

___ Brief arriving staff on the current emergency status, or delegate this task to the Assistant UDAC Coordinator.

___ Establish contact with the PG&E EOF Radiological Emergency Recovery Manager (RERM) for information updates from the Emergency Operations Facility (EOF).

___ Establish contact with the County Health Officer in the County Emergency Operations Center (EOC) and brief him on the current emergency status.

Operation

___ Receive periodic updates on emergency conditions from the RERM.

___ Review EARS dose projections and the associated "Radiological Summary Sheets."

___ Receive and review draft protective action recommendations from the UDAC staff (including the EARS Radiological Summary Sheet or, for manual calculations, the Radiological Status Form (Form A); and the Protective Action Form (Form B)).

___ Discuss draft protective action recommendations with the Assistant UDAC Coordinator, and if determined appropriate, sign Form B. The form then goes to the PG&E Recovery Manager for concurrence or separate recommendation. It is then taken to the County Health Officer, and he is briefed on the recommendations and their bases.

___ Review field monitoring data as logged on the Offsite Field Monitoring Data Communication Form (Form C) and compare the data to dose projections. Consult with the PG&E RERM to resolve discrepancies, if possible.

FORM A - RADIOLOGICAL STATUS FORM

RADIOLOGICAL STATUS FORM NO.:_____ DATE:_____ TIME:_____

Meteorological Data:

Wind Speed:_____ m/s X 2.2 = (___ __MPH)

Wind Direction (From):_____ Degrees Average Stability Class:_____

Release Rate Data:

Total Noble Gas _____ (Ci/s) Total Iodine _____ (Ci/s)
E-Bar _____ (Mev/Dis) I-131 Dose Eq. _____ (Ci/s)

Determined By:_____

EARS Update #:_____ CURRENT Dose Rates

Range (Mi)	X/Q (S/M³)	Thyroid (Rem/hr)	Whole Body (Rem/hr)

PROJECTED Dose and Dose Rates

Projected Release Duration ____ Hours

		< DOSE RATES >		< DOSE >	
Range (Mi)	X/Q (S/M³)	Thyroid (Rem/hr)	Whole Body (Rem/hr)	Thyroid (Rem)	Whole Body (Rem)

By:_____(ESE) By:_____ (UDAC)

PROTECTIVE ACTION RECOMMENDATION FORM

Date: ____/____/____ Time: _____ Form No. _____ Initiated by: ☐ UDAC ☐ PG&E

EMERGENCY CLASSIFICATION

☐ ALERT
☐ SITE AREA EMERGENCY
☐ GENERAL EMERGENCY

MET DATA

WIND DIRECTION (Draw Arrow)

360°/0° N
270° W – E 90°
S 180°

Wind Direction: _____ (from)

Wind Speed _____ MPH

RELEASE DATA ☐ No Release ☐ Potential Release ☐ Imminent Release ☐ Release in Progress ☐ Release Terminated

(See attached Radiological Status Summary Sheet and/or EARS Update Form for more information.)

This column filled out by UDAC ONLY

UDAC

PROTECTIVE ACTION RECOMMENDATIONS

TO: *COUNTY HEALTH OFFICER*

FROM: *UDAC COORDINATOR*

Note: Evacuation of PAZs 1 and 2 required at GENERAL EMERGENCY.

EXPLANATION/COMMENTS: _____

_____ (Attach additional sheets if needed.)

IPZ RECOMMENDATIONS:

☐ Dairy herds on stored feed and water
☐ Embargo dairy products.
☐ Cease harvesting activities.
☐ Embargo field products.
☐ Secure pumping for affected reservoirs.

Describe affected areas: _____

_____ (Attach additional sheets if needed.)

PAZs Affected
E = Evacuation
S = Shelter
O = Other (Explain)
Circle New Recommendations

1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
☐ Other (Explain)	☐ Other (Explain)

☐ I make the above recommendation.

Signed: _____
UDAC Coordinator

This column filled out by PG&E ONLY

PG&E

PROTECTIVE ACTION RECOMMENDATIONS

TO: *COUNTY HEALTH OFFICER*

FROM: *PG&E RECOVERY MANAGER/ SITE EMERGENCY COORDINATOR*

Note: Evacuation of PAZs 1 and 2 required at GENERAL EMERGENCY.

EXPLANATION/COMMENTS: _____

_____ (Attach additional sheets if needed.)

☐ I concur with UDAC's recommendation, OR;
☐ I make the above recommendation.

Signed: _____
Site Emergency Coordinator/Recovery Manager

White - UDAC Coordinator
Pink - County Health Officer
Yellow - PG&E Recovery Manager/SEC
Green - PG&E Advisor to the County
Copy to PG&E Radiological Manager
State Liaison to EOC

FORM C - FIELD MONITORING DATA COMMUNICATION FORM

Field Monitoring Director: _____

Location: CR TSC EOF

Date: ____/____/____ (yy mm dd)

Time Information Received: ____/____ (hh mm)

Field Team: A B C MEML

OFFSITE EMERGENCY MONITORING LOCATION

NNW,6	N,18	NE,17	ENE,20	E,22	ESE,4	ESE,13	ESE,29
NNW,27	NNE,13	ENE,8	ENE,21	E,23	ESE,7	ESE,18	ESE,34
N,11	NNE,18	ENE,9	E,11	E,24	ESE,10	ESE,24	SE,1
N,12	NE,11	ENE,15	E,15	ESE,3	ESE,11	ESE,28	SE,30

DOSE RATE MEASUREMENT

A. Count Rate

_____ CPM

_____ CPM

with an HP-210 / HP-260

Shield Off at ____/____ (hh mm)

Shield On at ____/____ (hh mm)

B. Dose Rate

_____ mRem/hr / Rem/hr

_____ mRem/hr / Rem/hr

with an ASP-1 / RO-2

Window Open at ____/____ (hh mm)

Window Closed at ____/____ (hh mm)

C. Integral Dose

_____ mRem/hr / Rem/hr

_____ mRem/hr / Rem/hr

with an ASP-1 / RO-2

Window Open at ____/____ (hh mm)

Window Closed at ____/____ (hh mm)

AIRBORNE ACTIVITY

A. Iodine

_____ µCi/cc _____ CPM

B. Particulate

_____ µCi/cc _____ CPM

with a HP-210 / HP-260 / GeL at

Volume _____ cu.ft.

Date (if not today) ____/____/____ (yy mm dd)

Time Collected ____/____ (hh mm)

SPECIAL MEASUREMENTS

A. Environmental Monitor Reading

_____ mRem/hr at PIC _____ at ____/____ (hh mm)

B. Ground Survey

_____ µCi/m² _____ CPM with an HP-210 / HP-260

C. Vegetation Sample

_____ µCi/Kg _____ CPM with an HP-210 / HP-260

D. Smear Sample

_____ dpm/dm² _____ CPM with an HP-210 / HP-260

Area _____ ft.² at ____/____ (hh mm)

Date (if not today) ____/____/____ (yy mm dd)

E. Liquid Sample

_____ net CPM _____ gross CPM with an HP-210 / HP-260

Volume _____ L. at ____/____ (hh mm)

Date (if not today) ____/____/____ (yy mm dd)

FIGURE 1 - INFORMATION FLOW IN UDAC

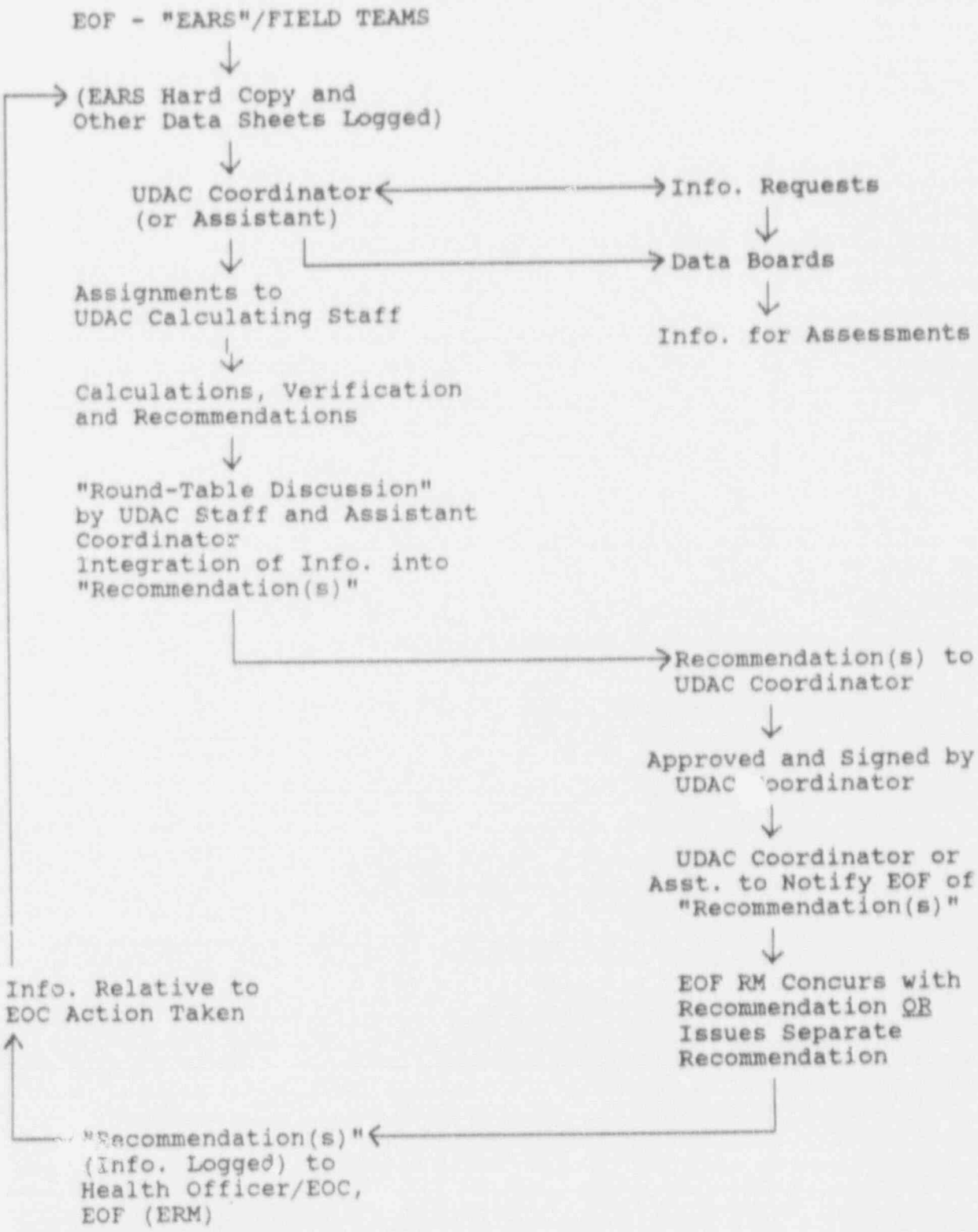
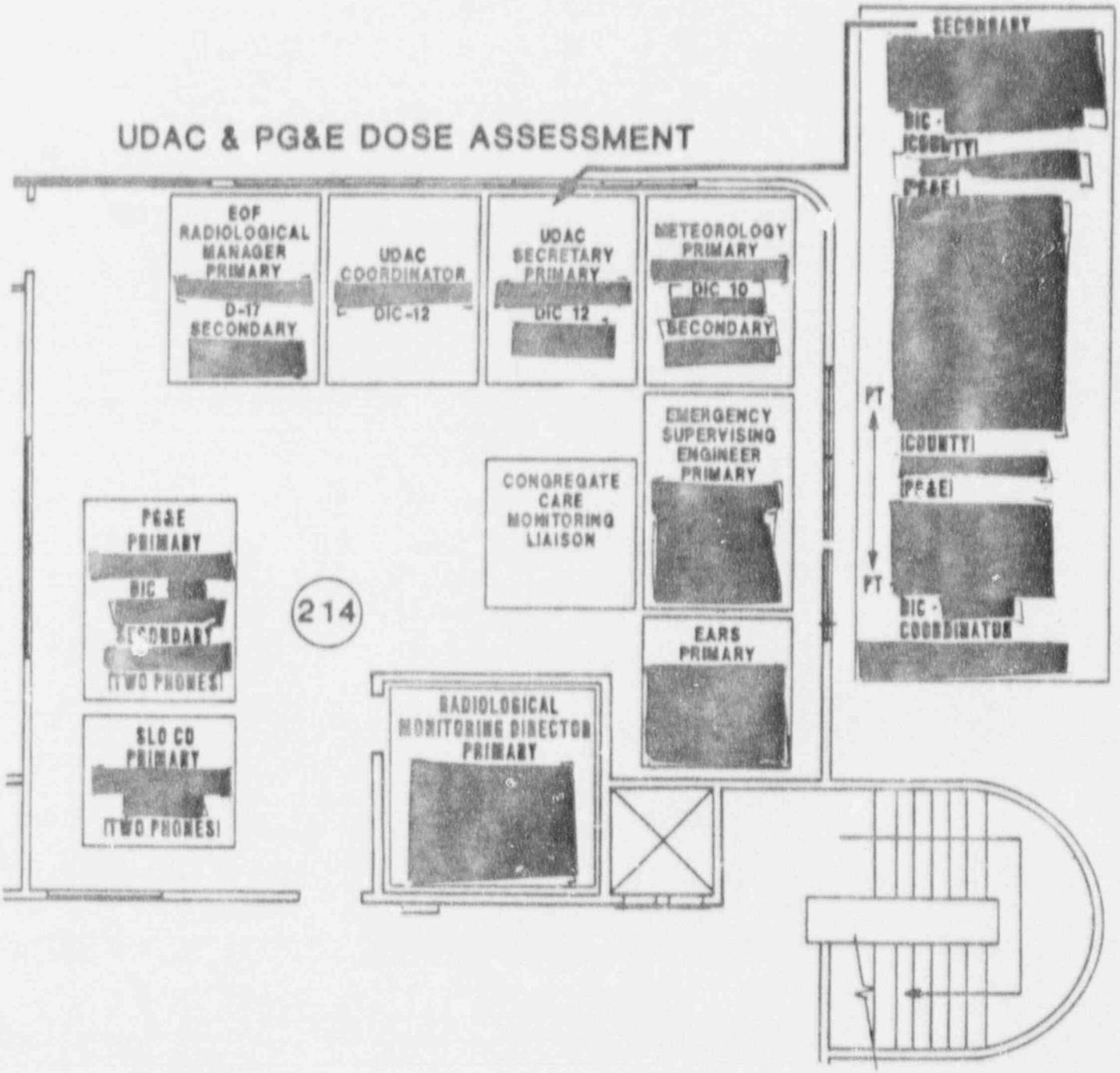


FIGURE 2 - UDAC FLOOR PLAN



191464

SAN LUIS OBISPO COUNTY

NUCLEAR POWER PLANT

EMERGENCY RESPONSE PLAN

STANDARD OPERATING PROCEDURE

III.06, HP-13

Emergency Equipment, Instruments, and Supplies

SAN LUIS OBISPO COUNTY ENVIRONMENTAL HEALTH DEPARTMENT

APRIL 1982

REVISED:

MAY 1990
AUGUST 1991
APRIL 1992

D:\WP51\DOC\NPPS\OPS\COUNTY\EHHP\HP-13.WP5

AUTHENTICATION

This standard Operating Procedure has been approved and is hereby incorporated as a department procedure:

Signed and Accepted:

Tim Mazzeo
Name

Environmental Health Director
Title

5/19/92
Date

This SOP compromises Section III.06 HP-13 of the San Luis Obispo County Nuclear Power Plant Emergency Response Plan. Detailed preparedness measures and emergency procedures concerning the operation of this organization are included herein. Part I of the Plan describes the overall County emergency organization and response, while Part II includes Implementing Instructions to be used by the County Direction and Control group and other key officials and the County Emergency Operations Center (EOC), in directing the emergency response activities.

SAN LUIS OBISPO COUNTY
OFFICE OF EMERGENCY SERVICES

REVISION PAGE

DESCRIPTION			DATE
Original Document			04/82
Complete Revision			05/90
Complete Revision			08/91
Complete Revision:	1.	Annual editorial update; addition of Revision, Distribution, Cross Reference pages.	04/92
	2.	Section A.3, Kits; added information on PC Duffel and Air Sampler.	
	3.	Section C, Operations; added information on how replacement supplies are procured (from PG&E via County OES).	
	4.	Checklist 1; added "radiation" stickers, to be placed on sample bags.	

SAN LUIS OBISPO COUNTY
OFFICE OF EMERGENCY SERVICES

SOP COPY DISTRIBUTION

SOP NO.: III.06, HP-13 TITLE: Emergency Equip., Instruments & Supplies REV. DATE: 04/92

COPY	QUANTITY	LOCATION	DATE
Original	1	OES File	
Working Copy	1	OES File	
EOC	1	Agency Binder	
	1	D & C File Cabinet	
	1	Master Binder, County Room	
PG&E	2	To Sanitize and Distribute	
Dept./Agency	3	Team A, B, C, Kits	
	9	FMT Members	
Diskette	1	OES Original File	

DUPLICATION QUANTITY [18]

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SAN LUIS OBISPO COUNTY
OFFICE OF EMERGENCY SERVICES

NUREG 0654 CROSS REFERENCE

NUREG 0654 SECTION	*SOP SECTION*
A. Responsibility	B.
F.1.d. Communications	A.3; Checklist 2
F.3 Communications	C.
H.7. Equipment	Checklists 1, 2, 3
H.10. Equipment Checks	C.
H.11. Equipment Checks	Checklist 1, 2, 3
I.8. Assessment	Checklist 1
J.10.e Ki	Checklist 1
K.3. EWEC	Checklist 1
P. Planning	D.

SECTION I - OVERVIEW

A. INTRODUCTION

1. PURPOSE

This procedure provides an inventory of emergency equipment, instruments, and supplies for the San Luis Obispo County Division of Environmental Health (SLOCOEH) Field Monitoring Teams (FMTs) with inspection frequencies and checklists.

2. OBJECTIVES

This procedure contains checklists which serve as inventory lists for the radiological emergency kits, communications equipment, and permanently fixed equipment.

3. OVERVIEW

Radiological emergency kits

Radiological emergency kits are stored at the San Luis Obispo County Health Agency, Environmental Health Division office 2156 Sierra Way, San Luis Obispo. The kits consist of two aluminum cases each. Each case is clearly identified as "instruments" or "supplies" and with the identifier of a field monitoring team, "Alpha," "Bravo," and "Charley." The contents of each emergency kit are listed on Checklist 1 attached to this procedure. Each kit also has a duffie bag of protective clothing and an air sampler.

Portable Communications equipment

Portable radio communications equipment is listed on Checklist 2.

Permanently fixed equipment

Important fixed equipment at the Environmental Health Office and the Unified Dose Assessment Center (UDAC) 1535 Kansas Avenue, San Luis Obispo is listed on Checklist 3.

B. RESPONSIBILITIES

1. DIRECTOR, ENVIRONMENTAL HEALTH

The Director, Environmental Health is responsible to ensure that emergency equipment is inventoried according to the method and frequency prescribed in this procedure.

2. DEPUTY HEALTH OFFICERS
Deputy Health Officers are responsible to perform the inventories prescribed in this procedure as directed by the Director, Environmental Health.

C. CONCEPT OF OPERATIONS

Radiological emergency kits and UDAC equipment will be inventoried by SLOCOEH using the applicable attachments on the first working day of each calendar quarter or after each use in an emergency or drill. Inventory forms will be retained by SLOCOEH. All items that are missing or damaged will immediately be reported in writing to the San Luis Obispo County Office of Emergency Services (OES). OES will ensure that replacement items are procured from PG&E and delivered to Environmental Health.

Radiological instruments will be replaced or recalibrated quarterly by PG&E Diablo Canyon. Since portable communications equipment is used on a routine basis, no special inventory is required. Dosimeter charger, calculator, and flashlight batteries will be replaced at a nominal quarterly frequency by PG&E, Diablo Canyon.

D. PROCEDURE MAINTENANCE

This procedure will be reviewed annually for accuracy, and will be revised as necessary to reflect changes in emergency equipment or supplies.

CHECKLIST 1 - Page 1 of 2

INVENTORY FORM

RADIOLOGICAL MONITORING KITS				
	QUANTITY	ALPHA	BRAVO	CHARLEY
1. PROTECTIVE WEAR BAG				
a. Coveralls, booties, caps	2			
b. Full face respirators	2			
c. Respirator filters	4			
d. Rubber gloves (pair)	6			
2. AIR SAMPLER				
a. Sampler pump (H-809C)	1			
3. INSTRUMENT KIT				
a. Dose rate meter ASP-1	1			
b. Count rate meter E-140N	1			
c. Dose rate probe HP-270 (ASP-1)	1			
d. Count rate probe HP-210	1			
e. Count rate probe N-1002	1			
f. Meter cords (ASP-1)	2			
g. Meter cords (E-140N)	2			
h. Dosimeter charger	1			
i. Air sampler head	1			
j. Batteries (C-Cell)	12			
k. Batteries (D-Cell	6			
4. SUPPLY KIT				
Form Binder/Box				
a. Writing pens	4			
b. Marking pens	2			
c. County map	1			
d. Field data sheets	25			
e. Monitoring procedures (HP-3)	1			
f. Inventory forms (HP-13)	10			
g. Dose tracking logs	4			
Dosimeters				
a. Pocket dosimeter (0-200mR)	2			
b. Pocket dosimeter (0-5R)	2			
c. Pocket dosimeter (0-20R)	2			
d. TLD's	2			

CHECKLIST 1 - Page 2 of 2	QUANTITY	ALPHA	BRAVO	CHARLEY
Air Sample Equipment				
a. Particulate filters (10-pk.)	4			
b. Iodine cartridge (charcoal)	10			
c. Iodine cartridge (Silver Z)	20			
d. Forceps (Tweezers)	2			
e. Stopwatch	1			
f. Sampler fuses (box of 5)	1			
g. Envelopes for particulate filters	25			
h. Plastic bags for iodine cartridges	25			
i. Gummed labels	25			
Sampling/Decon. Equipment				
a. Smear pads	20			
b. Rubber gloves (pair)	6			
c. Trowel	1			
d. Grass shears	1			
e. Sample bottles (1 liter)	2			
f. Plastic bags (18" x 24")	15			
g. Decon soap (pt. bottle)	1			
h. Hand brush	1			
i. Contaminated waste bags	4			
Miscellaneous Equipment				
a. Pocket calculator	1			
b. KI tablets (bottle)	1			
c. First aid kit	1			
d. Masking tape (2" roll)	1			
e. "Kwik-Kold" packs	4			
f. Small flashlight	1			
g. Lantern (6V) with battery	1			
h. Battery powered lamp	1			
i. Batteries (C-Cell)	6			
j. Batteries (D-Cell)	12			
k. "Radiological" stickers	100			

NAME_____ DATE_____

CHECKLIST 2 - Page * of 1

PORTABLE COMMUNICATIONS EQUIPMENT

___ 11 portable handi-talkies
___ 10 in-vehicle converiacoms
___ 3 battery chargers

CHECKLIST 3 - Page 1 of 1

PERMANENTLY FIXED EQUIPMENT

__ Radio communications base station, UHF Local Government Net (Environmental Health Office)

__ Radio communications base station, PG&E Health Physics and UHF Local Government Net (Unified Dose Assessment Center)

__ Emergency planning zone maps (UDAC)

__ 7 meteorological map overlays

__ Relevant emergency plans and procedures

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SAN LUIS OBISPO COUNTY

NUCLEAR POWER PLANT

EMERGENCY RESPONSE PLAN

STANDARD OPERATING PROCEDURE

III.44

PORT SAN LUIS HARBOR DISTRICT

New:
June 1992

AUTHENTICATION

This Standard Operating Procedure has been approved and is hereby incorporated as a department procedure:

Signed and Accepted:

Stephen P. Leane

Name

HARBOR MANAGER

Title

6/5/92

Date

PREFACE

This SOP comprises Section III.44 of the San Luis Obispo County Nuclear Power Plant Emergency Response Plan. Detailed preparedness measures and emergency procedures concerning the operation of this organization are included herein. Part I of the Plan describes the overall County emergency organization and response, while Part II includes Implementing Instructions to be used by the County Direction and Control group and other key officials and the County Emergency Operations Center (EOC), in directing the emergency response activities.

SAN LUIS OBISPO COUNTY
OFFICE OF EMERGENCY SERVICES

REVISION PAGE

DESCRIPTION	*DATE*
Original Document	June 6, 1992

SAN LUIS OBISPO COUNTY
OFFICE OF EMERGENCY SERVICES

191464

SOP COPY DISTRIBUTION

SOP NO. III 44 TITLE Port San Luis Harbor District REV. DATE 06/92

COPY	QUANTITY	LOCATION	DATE
Original	1	OES File	
Working Copy	1	OES File	
EOC	1	Agency Binder	
	1	D & C File Cabinet	
	1	Master Binder, County Room	
PG&E	2	To Canitize and Distribute	
Dept./Agency	1	Port San Luis Harbor District	
Diskette	1	OES Original File	

DUPLICATION QUANTITY [7]

TABLE OF CONTENTS

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NUREG 0654 SECTION		*SOP SECTION*
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F.	Communications	Section D.4 and G
J.	10.b Evacuation Routes 10.c Notifications 10.d Special Needs and Carless Populations	Checklist 4 and Attachment D Section D.4 and Checklist 1 Checklist 5
K.3 K.4	Emergency Worker Exposure Control Emergency Worker Exposure Control	Checklist 2 Checklist 2
N.	Exercises	Section H.2
O.	Training	Section H.1
P.	Planning	Section I

SECTION I - OVERVIEW

A. PURPOSE

The purpose of this response plan is to provide guidance to the Port San Luis Harbor personnel in performing their assigned tasks in the event of an emergency at the Diablo Canyon Power Plant.

B. DESCRIPTION OF AGENCY

The Port San Luis Harbor District has two departments which could provide support in the event of an emergency. The Harbor Patrol is staffed with a Harbor Patrol Officer, four full-time, and one part-time Harbor Patrol Officers. The Harbor Patrol department would actually conduct the evacuation process, while the Maintenance and Operations department, which is comprised of several employees, would be in charge of securing the functions of the Harbor District.

Refer to Attachment A for personnel roster of the Port San Luis Harbor District.

C. EMERGENCY ORGANIZATION, RESPONSIBILITIES, AND COORDINATION/SUPPORT

1. Organization

The Emergency Organization chain-of-command for the District does not differ from the normal day-to-day reporting chain. The Harbor District Manager will act as the lead person for the District.

Refer to Attachment B, Emergency Organization Chart.

2. Responsibilities

During radiological emergencies affecting the areas of the Port San Luis Harbor District land area and surrounding harbor, the Harbor District will:

a. Provide fire and rescue services to the Port San Luis Harbor and surrounding land area and support the County Fire Department as requested.

b. Provide assistance to the Sheriff's Office in the notification of the public as a supplement to the Early Warning System.

c. Provide information to the public concerning protective actions as directed by the County Emergency Services Director.

d. Provide assistance in traffic control as directed by the Sheriff's Office or the California Highway Patrol.

e. Provide assistance to the County Engineer in the evacuation of the carless population.

f. Provide assistance in the confirmation of the evacuation and/or sheltering as directed by the Sheriff's Office.

g. Provide assistance to the County in reentry and recovery operations.

h. Monitor and control radiation exposure received by Harbor District personnel.

i. Provide assistance in earthquake response to the Sheriff's Office.

3. Coordination/Support

Port San Luis Harbor District personnel will coordinate their response activities with the County and, if appropriate, State agencies. In general terms, prior to County Emergency Operations Center (EOC) activation, the County Sheriff's Watch Commander will provide *protective action recommendations* to the District via commercial phone. After the County EOC is activated, the County Emergency Services Director, via the County/Cities Liaison Desk will provide *protective action recommendations* to the District via commercial phone. The County Fire Department will provide emergency status updates *only*, via County Fire radio or commercial phone. Other agencies will provide support to the District as requested.

Some primary coordination/support activities will be with the following agencies:

AGENCY	COORDINATION
County Sheriff's Office	Notification, Law Enforcement, and *Protective Action Recommendations*
County Emergency Services Director (via County/Cities Liaison Desk)	Notification and *Protective Action Recommendations*
County Engineer	Transportation Resource Assistance
County Health Officer	Emergency Worker Exposure Control and *Protective Action Recommendations*
County Fire Department	Notification, Fire Protection, and Emergency Status
California Highway Patrol	Evacuation Assistance
Avila Beach Fire Department (See NOTE below.)	Closure of Avila Beach from UNOCAL Pier to Pirates Cove

NOTE: The Avila Beach Fire Department takes care of emergency response activities in the townsite of Avila Beach, the Avila Pier, and the beach area, from the UNOCAL Pier to Pirates Cove.

D. CONCEPT OF OPERATIONS

1. INITIAL NOTIFICATION

The Port San Luis Harbor District will be *initially* notified of ALERT or higher emergencies at the Diablo Canyon Power Plant by the San Luis Obispo County Fire Department Emergency Command Center (ECC). The District person answering the call will record information about the situation and notify the Harbor District Manager or designee and other staff directed.

2. Mobilization

Upon being notified of an ALERT or higher emergency classification level declaration at the plant, the Harbor District Manager will fully mobilize District staff and direct them to report to the Port to duty assignments.

3. Communications

a. Emergency Status

The County Fire ECC will inform the District of changes in the status of the emergency.

b. Public Protective Action Recommendations

Prior to the activation of the County EOC, the District will receive protective action recommendations for the public from the County Sheriff's Watch Commander via commercial phone.

After the County EOC is activated, the County/Cities Liaison will inform the District of Public Protective Action Recommendation made by the County Director of Emergency Services via commercial phone.

c. Emergency Worker Exposure Control and Protective Action Recommendations

The County Exposure Control Desk in the County EOC will be the primary for emergency worker exposure control and protective action recommendations.

4. Implementation of Emergency/Protective Actions

When directed by the County Emergency Services Director, the Harbor District Manager will implement protective actions. The emergency or protective actions may include the following:

a. Route Alerting (emergency action)

Route alerting involves the notification of the public at the Port and surrounding area in the event of siren failures. Route alerting will be

accomplished with mobile "public address (PA)" systems. The public will be instructed to tune to the local Emergency Broadcast System (EBS) radio stations for the actions they should take.

b. **Precautionary Closure of Port and Surrounding Areas** (emergency action)

As a precautionary measure, the County Emergency Service Director may recommend closure of the Port area in the early stages of an emergency. This will allow Port visitors to be moved out of the Port area so that if the situation worsens, Port personnel can secure the facility and relocate to a an unaffected area. The Harbor District Manager will assign staff to inform the public in the area to leave and listen to the EBS for further instructions.

Areas to be closed include: Boat Storage Area, Mooring Area, Business Office, Parking Area, Lighthouse, Harford Pier, Olde Port Beach (only areas between road and ocean to be closed unless otherwise directed).

c. **Evacuation of the Port and Surrounding Areas** (protective action)

The County Emergency Service Director may recommend evacuation of the District. The recommendation may be only for the District or may apply to the Protective Action Zone 3 where the District is located.

The recommendation to evacuate means that all members of the public in the areas listed below should be instructed to leave the area immediately. District personnel will assist persons who may not have a means of transportation out of the area.

The areas to be evacuated by the District include: Boat Storage Area, Trailer Park, Mooring Area, Business Office, Parking Area, Lighthouse, Harford Pier, Olde Port Beach (only areas between road and ocean to be closed unless otherwise directed).

Once the public has evacuated the area, District personnel will relocate to a location outside the affected area.

d. **Sheltering** (protective action)

The County Emergency Service Director may recommend sheltering. This means that all members of the public in the area should go to any well-built structure, close all doors and windows, and await further instruction over the EBS radio stations. District personnel will assist persons who may not have a place to shelter.

e. **Emergency Worker Protective Actions** (protective action)

As instructed by the County Health Officer, District personnel will follow emergency worker protective actions. These actions may include:

- Use of EWEC instruments,
- Taking potassium Iodide (KI) tablets to limit internal exposure to radioactive iodines.
- Relocating to areas having lower exposure levels
- Reporting to an Emergency Worker Monitoring and Decontamination Center to be monitored for radioactive contamination and decontaminated if necessary.

E. DESCRIPTION OF DISTRICT AND FACILITIES

Port San Luis Harbor is located west of Avila Beach at the end of Harford Drive, just past the main entrance to Diablo Canyon Power Plant. *The District is located in Protective Action Zone 3.*

Mailing address is:

Port San Luis Harbor District
P.O. Box 249
Avila Beach, CA 93424
Business:
FAX:

Refer to Attachment D for map showing the Port San Luis area.

Existing Port facilities consist of:

1. The Harford Pier, 1460 feet long, which has three public hoists, a charter boat facility, two fish markets, one restaurant, a fast food take out, and a bar.

2. A Diesel fuel facility, located at the end of the Harford Pier, operated by the Harbor District, and is capable of servicing all types of vessels with diesel fuel, lube oil and water.

3. Moorings, approximately 300 in number, are owned by Harbor patrons and are maintained by the Harbor District.

4. Onshore, the District has an administration office, a harbor maintenance shop, two public restrooms, one coed shower, a storage area for equipment and personnel, a sport launch building for launching and retrieving trailerable boats (day use), a marine supply store, a bait and tackle concession and a restaurant. Recreation Vehicle camping is also allowed.

5. A boatyard, which is operated by the Harbor District, is for the shoring of vessels that have been hauled out by the 60 ton mobile hoist.

6. A 26 acre dry storage yard which will store approximately 65 trailerable boats, misc. large fishing gear, and harbor equipment and material.

7. A Trailer Park on the harbor terrace consisting of approximately thirty-five home. It is highly seasonal, with approximately 20% full time occupancy.

8. A public beach (Olde Port Beach, also known as Poly Beach), approximately one-half mile in length, maintained by the District, which offers a public launching ramp for small craft and similar day sailing uses.

9. Avila Pier, beaches, and parking lots adjacent to these areas (see note below).

NOTE: The Avila Beach Fire Department takes care of emergency response activities in the townsite of Avila Beach, the Avila Pier, and the beach area, from the UNOCAL Pier to Pirates Cove.

F. TRANSPORTATION, RESCUE VEHICLES, AND EQUIPMENT

1. Vehicles

The District has a variety of vehicles and vessels which could be utilized to assist in the evacuation of individuals from both landside and seaside areas of Port San Luis.

Port San Luis vessels include:

a. 25 Foot Farallon, fiberglass patrol boat
b. 5 Meter Avon, rigid hull inflatable
c. 4 Meter Avon, rigid hull inflatable
d. 14 Foot aluminum skiff
e. 50 Foot converted Navy LCM (fire apparatus)

Port San Luis vehicles include various types of trucks which could provide transportation to designated county evacuation centers. The Harbor Patrol's truck is also equipped with a PA system; VHF/UHF radios, fire equipment, and Basic Life Support medical equipment.

2. Equipment

The District has limited equipment and supplies for fire and rescue activities.

G. COMMUNICATIONS

1. Telephones

The Harbor District has telephones located throughout the Harbor land area. The main office has a bank of four lines which can be rolled over through one telephone number [redacted].

2. Radios

The Harbor District has various types of radios. All of these (with the exception of the UHF radios) are capable of providing communications between vessels in the

area and the harbor District in the VHF marine band. The calling and distress channel is [redacted] while the District's operations (working) channel is [redacted] The Harbor Patrol's working channel is a private PORT OPS channel, LCM and Harbor Patrol Vehicle have permanently mounted VHF radios.

The Harbor Office has a radio capable of receiving transmissions from CDF/County Fire, Avila Beach Fire Department, Pismo Beach Fire Department, Grover City Fire Department and Oceano Fire Department. All handheld radios, the Patrol Boat, LCM, and the Harbor Patrol truck also have this capability.

The Harbor Patrol Department also has 3 UHF radios (2 handheld, 1 mobile) for communications with the various law enforcement and emergency medical agencies. The District has a Station Identification number (69) issued by the County when using UHF communications.

Refer to Attachment C for a list of frequencies and call signs for base station and other radios.

H. TRAINING

1. Classroom

The Senior Harbor Patrol Officer will coordinate radiological emergency response training with the County Office of Emergency Services (OES) annually.

2. Drills and Exercises

The County OES will conduct drills and exercises and will coordinate the Harbor District's role with the Harbor Manager.

I. PROCEDURE REVIEW AND REVISIONS

1. This procedure will be reviewed annually and revised as necessary by the Harbor Manager in coordination with the County OES.

2. The Harbor Manager will ensure that all parties related to the fulfillment of procedures as described by this document are informed of all revisions to this Standard Operating Procedure.

SECTION II - CHECKLISTS

Checklist 1 - Initial Notification and Mobilization
Checklist 2 - Exposure Control
Checklist 3 - Precautionary Actions
Checklist 4 - Port San Luis Area Evacuation/Sheltering
Checklist 5 - Carless/Skiffless Population Evacuation
Checklist 6 - Route Alerting
Checklist 7 - Demobilization

CHECKLIST 1
INITIAL NOTIFICATION, MOBILIZATION, AND RESPONSE

The County Fire Department will *initially* notify Port San Luis Harbor District by radio or telephone. After *initial* notification, the person receiving the initial call of a radiological emergency affecting Port San Luis will notify The Harbor Manager and inform him of the situation. The Harbor Manager or designee will follow the guidance provided below that is appropriate to the emergency classification:

A. UNUSUAL EVENT

____ No actions required.

B. ALERT, SITE AREA, OR GENERAL EMERGENCY

When notified of an ALERT or higher emergency classification level, the Harbor Manager or designee will:

____ Write down emergency status information on the attached Liaison Form.

____ Mobilize needed personnel by radio, telephone or public address system using Attachment A, Port San Luis Harbor District Emergency Personnel Roster.

____ Monitor one of the Emergency Broadcast System (EBS) radio stations (920 AM or 1400 AM).

____ Release non-essential staff and direct them to monitor one of the Emergency Broadcast System (EBS) radio stations (920 AM or 1400 AM).

____ Assess personnel response and call in additional personnel if necessary.

____ Brief personnel of the situation.

____ Break out radiation exposure control equipment in accordance with Checklist 2, Exposure Control.

____ Request communications support from Radio Amateur Civil Emergency Services (RACES) through County Fire.

NOTE: The Avila Beach Fire Department takes care of emergency response activities in the townsite of Avila Beach, the Avila Pier, and the beach area, from the UNOCAL Pier to Pirates Cove.

____ If a closure of the Port and surrounding area is directed by the County Sheriff or Emergency Services Director, use Checklist 3, Precautionary Actions, for guidance.

____ If evacuation or sheltering of the Port and surrounding port area is directed by the County Sheriff or Emergency Services Director, implement Checklist 4, Port San Luis Area Evacuation/Sheltering.

_____ If carless population evacuation assistance is requested by the County Engineer or the public, implement Checklist 5, Carless/Skiffless Population Evacuation.

_____ If informed of failure of sirens at the Diablo Canyon Main Gate (siren 34) or the Light House (siren 34a), provide alerting of the public (route alerting) using Checklist 6, Route Alerting, for guidance.

_____ Make provisions for 24-hour staffing if long-term operations are necessary.

_____ Keep the County/Cities Liaison apprised of actions taken.

Note: **After the general public has completed the evacuation of the harbor area and harbor district operations are completed, contact the County/Cities Liaison at 549-9172 and ask where Port District Personnel should relocate. DO NOT STAY IN THE AREA IF ALL ACTIONS ARE COMPLETE.**

_____ Provide fire and rescue services in accordance with normal district procedures.

_____ When emergency is terminated, demobilize emergency operation using Checklist 7, Demobilization, for guidance.

CITIES LIAISON/PIO FORM

MESSAGE #:_____ TIME: ____:____Hours DATE: __/__/__

Check in Roll Call: SLO___ CP___ MB___ PR___ ATAS___ AG___ GC___ PB___

A. CLASSIFICATION

___ 1. At _____ hours, a/an _____ was declared for Unit ___ at the Diablo Canyon Power Plant. This is a new emergency classification which may require additional notifications or actions. Please review your procedures.

___ 2. The ___UE ___ALERT ___SAE ___GE emergency classification remains in effect.

B. PLANT CONDITIONS

___ 1. Conditions at the plant are as follows:

___ 2. Conditions at the plant remain essentially unchanged.

___ 3. Plant conditions are updated as follows:

C. METEOROLOGY

___ 1. The current wind direction at the plant is *from* the _____ *toward* _____. Wind Speed: _____MPH

___ 2. The wind direction is forecasted to shift in a (clockwise/counter clockwise) rotation that will end at _____ hours. At the completion of the rotation the wind is forecasted to be from the _____toward the _____ with a forecast wind speed of _____ miles/hour.

___ 3. Meteorological conditions have not significantly changed and remain as previously given.

___ 4. Additional current or forecasted weather information is provided as follows:

D. RADIOLOGICAL STATUS

___ 1. No radiological release has occurred.

___ 2. A radiological release may occur.

___ 3. A radiological release is occurring.

___ 4. A radiological release has occurred but is stopped.

___ 5. Additional radiological information includes:

E. DOSE ASSESSMENT

___ Current dose assessment information is as follows:

___ 1. *Projected* whole body dose is ___ _____ rems at _____ miles from the plant for a 3-hour period.

___ 2. *Actual* whole body dose rates have been measured by field monitoring personnel at _____ rems/hour, at _____ miles from the plant.

___ 3. Dose assessment information is not available at this time.

___ 4. Other Dose Assessment information includes:

F. PROTECTIVE ACTION RECOMMENDATIONS

___ Your attention please. The County is recommending the following protective actions:

___ 1. Closure of

___ 2. Movement of the public from the Low Population Zone which consists of Protective Action Zones 1 and 2, the six-mile radius around the plant.

___ 3. **Evacuate** Protective Action Zones: 1 2 3 4 5 6 7 8 9 10 11 12
Refer to the PAZ map for zone name and description.

___ 4. **Shelter** Protective Action Zones: 1 2 3 4 5 6 7 8 9 10 11 12
Refer to the PAZ map for zone name and description.

___ 5. Emergency workers are advised to take the following protective actions:

___ 6. Other recommended protective actions include:

___ 7. No new protective actions are recommended at this time. Prior protective actions remain in effect.

G. SIREN ACTIVATION/EMERGENCY DECLARATIONS/CONGREGATE CARE

___ 1. The Warning System Sirens will be sounded at _____ hours.
___ 2. A Local Emergency Declaration has been made by the County at _____ hours.
___ 3. A State of Emergency has been declared by the Governor at _____ hours.
___ 4. The following congregate care center(s) have been opened by the American Red Cross:
___ a. Allan Hancock College
___ b. Camp Roberts
___ 5. Other:

H. SCHOOLS - School officials have taken the following actions:

___ 1. The students, including special education students, in the following schools are being evacuated to Atascadero High School/Camp Roberts:

PAZ 3
___ Bellevue-Santa Fe Elementary

PAZ 5
___ Baywood Elementary
___ Los Osos Jr. High
___ Sunnyside Elementary

PAZ 8
___ C. L. Smith Elementary
___ Pacific Beach High School
___ Sinsheimer Elementary
___ Bishop's Peak Elementary
___ Hawthorne Elementary
___ Laguna Jr. High

PAZ 8 (cont.)
___ Los Ranchos Elementary
___ Pacheco Elementary
___ San Luis Obispo Sr. High
___ Teach Elementary
___ Chris Jesperson School for the Handicapped
___ Emerson Community School

PAZ 9
___ Morro Bay Elementary
___ Morro Bay Sr. High
___ Del Mar Elementary and Preschool
___ Cayucos Elementary

___ 2. The students, including special education students, in the following schools are being evacuated to Allan Hancock College in Santa Maria:

PAZ 6
___ Judkins Intermediate
___ Shell Beach Elementary

PAZ 10
___ Arroyo Grande High
___ Grover City Elementary
___ Grover Heights Elementary
___ Harloe Elementary
___ Lopez High School
___ North Oceano Elementary
___ Oceano Elementary
___ Ocean View Elementary

PAZ 10 (cont.)
___ Paulding Intermediate
___ South County Community School

PAZ 12
___ Mesa Elementary
___ Branch Elementary

PAZ 13
___ Dana Elementary
___ Nipomo Elementary
___ Nipomo Preschool

I. TRAFFIC

___ 1. The following traffic advisories exist:

J. OTHER INFORMATION

___ Other information includes the following:

___ This concludes EOC Message # _____
___ Cities standby for closing role call
___ Cities with questions should use the Cities Call Back Line at 549-9172

Closing Roll Call: SLO___ CP___ MB___ PR___ ATAS___ AG___ GC___ PB___

CHECKLIST 2
EXPOSURE CONTROL

A. DISCUSSION

Dosimetry and potassium iodide (KI) are available to emergency workers at ALERT or higher emergency classification. The Harbor Manager will ensure that staff use exposure control equipment and supplies as specified in procedures.

B. INSTRUCTIONS

Harbor Manager or Designee:

____ Assign an individual to implement the attached procedure titled EWEC-2.

____ Direct personnel to use EWEC-3 and ensure they are briefed on emergency radiation exposure limits.

____ Ensure that exposures are called into Emergency Worker Exposure Control (EWEC) Desk at the County EOC at the time interval specified in the EWEC procedures.

____ Inform personnel of emergency worker protective actions recommended by the County Health Officer (e.g., taking KI).

Note: Personnel are NOT to take the KI unless directed to do so by the County Health Officer.

____ Request additional supplies as necessary.

____ Ensure that personnel turn in exposure control supplies when the emergency is terminated.

Personnel will:

____ Obtain a low-range and high-range self-reading dosimeter, and thermoluminescent dosimeter (TLD) before going out on task assignments.

____ Follow the instructions provided in the attached Emergency Worker Exposure Control Checklist (EWEC-3).

____ Take potassium iodide (KI) ONLY when directed by the County Health Officer, and read the pamphlet provided.

____ Record exposures on the cards provided in the kits.

____ Ensure that exposures are reported to the Harbor District at the time interval specified in the EWEC procedures.

____ Turn in exposure control supplies as directed by the Harbor Manager or Designee.

EWEC-2
COMMAND CENTER CHECKLIST

The purpose of this checklist is to provide guidance to personnel involved in the issuance and tracking of emergency worker exposure to radiation.

UNUSUAL EVENT - NO ACTION REQUIRED

ALERT OR HIGHER EMERGENCY CLASSIFICATION

FOLLOW THE GUIDANCE PROVIDED BELOW.

A. Self-Reading Dosimeter Charging and Zeroing

___ Charge and zero the self-reading dosimeters using the following guidance:

1. Place one D cell battery in the CDV-750 Charger.
2. Place the self-reading dosimeter on the charging coupler and hold down firmly.
3. Turn the zeroing knob slowly (either direction) until the hairline comes into view, then slowly move the hairline on or very close to the right of the zero on the scale.
4. Remove the dosimeter from the coupler and look into it and see if it is still on or near the right of the zero. If not, repeat steps 2 and 3.

B. Emergency Kit Assembly

___ After the self-reading dosimeters are charged and zeroed, assemble emergency kits consisting of the following items.

Quantity	Item
1	Thermoluminescent Dosimeter (TLD)
1	Low-range self-reading dosimeter (CDV-138)
1	High-range self-reading dosimeter (CDV-730, if available
2	Field Exposure Logs; one blue for low-range and one yellow for high-range dosimeters
3	Potassium Iodide (KI) tablets and the KI instructions
1	EWEC-3, Emergency Worker Exposure Control Checklist

C. Logging Procedures, Briefing, and Emergency Kit Issue

___ After Emergency kits are assembled, log and issue the kits to emergency workers using Form CC-1, Personnel Roster/Exposure Log. (NOTE: The TLD number is the large 3 or 4 digit number on the lower right hand corner of the label.)

___ Brief emergency workers using EWEC-3, Emergency Worker Exposure Control Checklist. Inform them to report readings in the proper units. Low-range dosimeter scale read out in milliroentgen (mR) and high-range dosimeters read out in roentgen (R).

D. Communications with the Emergency Workers and the Exposure Control Desk

___ Refer to Figure 1, Information Flow Diagram, for information flow guidance.

___ After emergency worker information has been logged and kits are issued, call the Exposure Control Desk [redacted] or use alternate communication method, if necessary), and provide the following information from Form Command Center-1:

1. Agency Name
2. Phone Number
3. Backup Communications Means Available
4. Names of Workers Issued Kits
5. Social Security Numbers of Workers
6. TLD Numbers Issued to Workers

___ Review and, as necessary, refer to the exposure guidelines found in Table 1. DO NOT ALLOW EMERGENCY WORKERS TO EXCEED THE RADIATION EXPOSURE LIMITS IN TABLE 1 WITHOUT CHO APPROVAL VIA THE EXPOSURE CONTROL DESK.

___ Maintain contact with emergency workers in the field at least hourly.

___ Record emergency worker exposure readings on Form CC-1. BE SURE TO RECORD THE READINGS IN THE PROPER UNITS (mR or R).

___ Provide emergency workers with information obtained from the Exposure Control Desk and/or the Cities Liaison concerning radiological conditions.

___ Report exposure readings to the Exposure Control Desk when the initial reading is reported by emergency workers. (Do not report zero readings to Exposure Control Desk.). After the first reading is reported, report subsequent readings at 50 mR increments. (e.g. initial reading 50 mR, 100 mR, 150 mR,).

___ If an emergency worker's reading approaches 1000 mR (1 R), contact the Exposure Control Desk and request authorization for worker to exceed the 1250 mR PAG. If authorization is not granted, recall emergency workers from the field.

Do not allow emergency workers to exceed 1250 mRem or any other exposure limits listed in Table 1 without CHO authorization via the Exposure Control Desk.

___ Report any rapid increases or unexpected changes in exposures readings to the Exposure Control Desk.

___ Relay protective actions issued by the Exposure Control Desk for emergency workers. These protective actions will be issued through the Exposure Control Desk, Cities Liaison, and other official channels. POTASSIUM IODIDE TABLETS SHOULD NOT BE TAKEN UNLESS RECOMMENDED BY THE EXPOSURE CONTROL DESK.

___ Request additional equipment/supplies through your agency's emergency organization.

EMERGENCY WORKER

EXPOSURE CONTROL

CHECKLIST

EWEC-3

EWEC-3
EMERGENCY WORKER EXPOSURE CONTROL CHECKLIST

SECTION A - EMERGENCY KIT ASSEMBLY AND CHARGING OF DOSIMETERS

1. OBTAIN AN EXPOSURE CONTROL KIT CONTAINING THE FOLLOWING:

_____ Copy of this checklist
_____ Thermoluminescent Dosimeter (TLD)
_____ Low-Range Self-Reading Dosimeter (CDV-138)
_____ High-Range Self-Reading Dosimeter (CDV-730))
_____ Field Exposure Logs; one blue for low-range and one yellow for high-range dosimeters
_____ Potassium Iodide (KI) Tablets with Precaution Leaflet

2. IF SELF-READING DOSIMETERS NEED TO BE CHARGED, USE THE FOLLOWING GUIDANCE:

_____ a. Obtain a CDV-750 Dosimeter Charger and install a D-cell battery.

_____ b. Place dosimeter on the charging coupler and hold down firmly.

_____ c. Look into dosimeter and turn the knob slowly until the hairline comes into view. Then turn knob until the hairline is on or as near as possible to the right of zero.

_____ d. Remove dosimeter and verify the hairline is on or near the zero. If not, repeat above steps.

SECTION B - PRE-FIELD CHECKLIST AND PRECAUTIONS

_____ 1. Ensure dosimeters are charged and the initial "START" readings are written on the Field Exposure Logs.

_____ 2. Ensure your name, address, agency, Social Security Number and TLD number (number on bottom of stick-on tab) are written on Logs.

_____ 3. Ensure self-reading dosimeters and TLD are clipped between neck and waist.

_____ 4. Ensure you are briefed on radiological conditions and communication methods by your Command Center, before going on an assignment.

_____ 5. Remember --- 1000 milliRems are equal to 1 Rem (1 Rem = 1 Roentgen).

_____ 6. Handle dosimeters with care and keep them dry. Rough handling, dropping, and moisture can cause them to discharge and/or give inaccurate readings.

_____ 7. Follow protective action recommendations issued for emergency workers by the County Health Officer (CHO). (Most recommendations and advisories will be communicated to your Command Center and then to you.)

_____ 8. Do not take the Potassium Iodide tablets unless directed to do so by the CHO. Read the leaflet provided in the kit if recommended to take the tablets.

Record additional information provided by your command center here: _____

SECTION C - RADIATION EXPOSURE TRACKING

Read self-reading dosimeters often, but at least hourly. If the hairline begins to move up the scale, track your exposure as follows:

____1. Ensure the initial start reading is recorded in the "START" column.

____2. Record the "TIME" and "DATE" of each reading in the proper columns.

____3. Record each reading in the "ENDING" column. DO NOT RECORD ZERO READINGS.

____4. Record the "ENDING" reading in the next "START" reading column. This number becomes your new "START" reading. (NOTE: If dosimeter has been recharged, be sure to record the new reading in the next "START" column.)

___5. Subtract the "START" reading from the "ENDING" reading, and record the difference in the "NET" column.

___6. Inform your Command Center of each "NET" reading. DO NOT CALL IN ZERO READINGS.

___7. Figure your cumulative exposure by adding the numbers in the "NET" column. DO NOT EXCEED EXPOSURE LIMITS LISTED BELOW WITHOUT COUNTY HEALTH OFFICER (CHO) AUTHORIZATION. Inform your Command Center if you approach the limits.

___8. Recharge your dosimeters if the hairline reaches three-fourths scale and at the beginning of each shift. Record the new "START" reading on the Log.

___9. If your dosimeter hairline goes off-scale (cannot be seen), ask other workers in your area if their dosimeters are on-scale. If their dosimeters are on-scale, your dosimeter is most likely malfunctioning and needs to be recharged or replaced. If other workers' dosimeters are also off-scale, immediately contact your Command Center for instructions.

___10. If you use all the spaces on a Field Exposure Log, add the "NET" column numbers and record the total in the "CUMULATIVE TOTAL" box. On a new Log, record this total in the space with the asterisk(*). (Include this carry-over total as part of your cumulative exposure.)

___11. Turn in self-reading dosimeters at the end of each shift for use by others. Keep your TLD and all Exposure Record Logs until directed to turn them in.

___12. Periodically compare your exposure recorded on your Logs with the exposure recorded by your Command Center. Resolve any discrepancies.

EMERGENCY WORKER EXPOSURE GUIDELINES

Remember -- 1 Rem = 1000 mRems (1 Rem = 1 Roentgen)

Category	Whole Body Exposure Limit	Comments
1. County Administrative Limit	1 Rem	Inform your Command Center if you approach this limit. The County Health Officer (CHO) will be informed and consider the need for authorization above the Initial Exposure limit of 1.25 Rem Whole Body. Your Command Center will inform you of the CHO recommendations.
2. Emergency Exposure Limits		
a. Initial Exposure Limit	1.25 Rem	The CHO must authorize exposure in excess of 1.25 Rem. If authorized, you may receive up to 5.0 Rem without further authorization.
b. Extraordinary Emergency	25 Rem	With CHO authorization, up to 25 Rem may be authorized for extraordinary emergency operations. Volunteers Only.
c. Life-Saving Actions	75 Rem	With CHO authorization, up to 75 Rem may be authorized for the purpose of saving lives. Volunteers Only.

CHECKLIST 3
PRECAUTIONARY ACTIONS

As a precautionary measure, the County Emergency Service Director may recommend closure of the Port area in the early stages of an emergency. This will allow Port visitors to be moved out of the Port area so that if the situation worsens, Port personnel can secure the facility and relocate to a an unaffected area. When directed by the County Emergency Services Director, the Harbor Manager will coordinate the closure of Port areas using guidance provided below:

A. AREAS TO BE CLOSED

- Boat Storage Area
- Business Office
- Lighthouse
- Olde Port Beach (Only areas between road and ocean to be closed unless otherwise directed)
- Mooring Area
- Parking Area
- Pier
- PSL Trailer Park

NOTE: The Avila Beach Fire Department takes care of emergency response activities in the townsite of Avila Beach, the Avila Pier, and the beach area, from the UNOCAL Pier to Pirates Cove.

B. INSTRUCTIONS

HARBOR MANAGER OR DESIGNEE:

_____ Monitor one of the Emergency Broadcast System (EBS) radio stations [redacted]

_____ As directed by the County Emergency Services Director, close the areas listed in Section "A" above.

_____ Ensure personnel implement exposure control as per Checklist 2.

_____ Brief personnel on their duties and assign areas to be closed.

_____ If needed, request assistance from the Sheriff's Office.

_____ Direct "temporarily closed" signs are posted.

_____ Keep Sheriff's Office and County Fire informed of Port closure progress.

CHECKLIST 3 - PRECAUTIONARY ACTIONS

PERSONNEL WILL:

____ Monitor one of the Emergency Broadcast System (EBS) radio stations [redacted].

____ Follow exposure control guidelines as per Checklist 2.

____ Obtain bullhorn or PA equipped vehicle and ensure proper operation.

NOTE: The Avila Beach Fire Department takes care of emergency response activities in the townsite of Avila Beach, the Avila Pier, and the beach area, from the UNOCAL Pier to Pirates Cove.

____ Proceed to assigned areas and make the following announcement to port visitors:

ATTENTION PORT VISITORS! ATTENTION PORT VISITORS! DUE TO A PROBLEM AT DIABLO CANYON POWER PLANT, THE PORT IS BEING CLOSED AS A PRECAUTIONARY ACTION. PLEASE VACATE THE AREA AND TUNE YOUR RADIO TO 920 AM OR 1400 AM OR MARINE CHANNEL 16. FOLLOW EMERGENCY INSTRUCTIONS AND AWAIT FURTHER INFORMATION.

____ Repeat message until areas are vacated.

____ Post "Temporarily Closed" signs along the perimeter of the closed areas.

____ Assist visitors in need.

____ Keep Harbor Manager informed of Port closure progress.

____ Await further instructions.

CHECKLIST 4
EVACUATION/SHELTERING OF PORT SAN LUIS AREA

A. AREAS TO BE EVACUATED

- Boat Storage Area
- Business Office
- Lighthouse
- Olde Port Beach (Only areas between road and ocean to be closed unless otherwise directed)
- Mooring Area
- Parking Area
- Pier
- PSL Trailer Park

B. INSTRUCTIONS

HARBOR MANAGER OR DESIGNEE:

____ Monitor EBS stations [redacted]

____ Assist as directed by the Sheriff's Office.

____ Coordinate actions with other response agencies.

____ Direct personnel to implement exposure control as per Checklist 2.

____ Brief personnel on the situation and the Harbor District role which is to support the Sheriff's Department.

____ Assign personnel to notify the population of the evacuation/sheltering recommendation as directed by the Sheriff's Office.

____ Refer to Attachment D which shows local evacuation routes as necessary.

____ Direct the Senior Harbor Patrol Officer to be in charge of communications between vessels utilizing VHF marine bands.

____ Direct the Senior Harbor Patrol Officer to supervise the evacuation of the Harford Pier by way of rescue vessels in the event of any possible damage to the foot of the Harford Pier. Also, provide transportation to those on board vessels in the Harbor.

____ Coordinate the evacuation of the carless/skiffless population with the County Engineer using Checklist 5.

____ If notified by the Sheriff's Department Watch Commander of the failure of sirens, note the number(s) of the siren(s) and initiate Checklist 6, Route Alerting.

____ Upon completion of Route Alerting, notify the Sheriff's Department Watch Commander.

____ Monitor the sheltering/evacuation and keep the Sheriff's Office informed of status.

Personnel will:

_____ Monitor EBS stations [redacted]

_____ Follow exposure control guidelines as per Checklist 2.

_____ Obtain bullhorn or PA-equipped vehicle and ensure the PA is operational.

_____ When directed by the Harbor Manager, proceed to assigned areas and make the following announcement:

ATTENTION! ATTENTION!

DUE TO A PROBLEM AT THE DIABLO CANYON POWER PLANT, THE COUNTY EMERGENCY SERVICES DIRECTOR HAS RECOMMENDED THAT (announce only proper recommendation for sheltering or evacuation as directed by the Harbor Manager) (SHELTERING/ EVACUATION) OF PORT SAN LUIS HARBOR DISTRICT COMMENCE IMMEDIATELY. TUNE YOUR RADIOS TO 920 AM OR 1400 AM OR MARINE RADIO CHANNEL 16 FOR SPECIFIC INFORMATION.

(Repeat the message until the population in the area is notified.)

_____ As directed by the Senior Harbor Patrol Officer, assist in the evacuation of the Harford Pier by way of rescue vessels in the event of any possible damage to the terminus of the Harford Pier. Also, provide transportation to those on board vessels in the Harbor.

_____ Assist persons in need.

_____ Coordinate the utilization of anchoring areas for those with anchors and/or provide moorings for those who don't have anchors.

_____ Tell the carless and unsheltered population to go to the Harbor Office for assistance.

_____ Monitor sheltering/evacuation progress and keep the Harbor Manager informed of your actions.

_____ Await further instructions.

CHECKLIST 5
CARLESS/SKIFFLESS POPULATION EVACUATION

A. DISCUSSION

The carless and skiffless population may be in need of transportation out of the area. The Harbor Patrol will provide assistance to the skiffless persons. The Harbor Office is designated as a collection point where these populations can assemble for transportation assistance. This carless population will then be transported directly out of the hazard area or can be transported to the Avila Beach Fire Station, where the County Engineer is responsible for evacuating this population to either Santa Maria to the south, or to Camp Roberts to the north.

B. INSTRUCTIONS

The Harbor Manager will:

____ Monitor EBS stations [redacted]

____ Ensure personnel implement exposure control as per Checklist 2.

____ Brief personnel on the situation.

____ Assign personnel to assist carless persons as well as those currently on their vessels in the Harbor.

____ Provide transportation to the District Office (or the Avila Beach Fire Station) by the following resources:

- public vehicles
- district vehicles and vessels
- private vehicles

____ Monitor the carless/skiffless population evacuation and keep the Sheriff's Office informed.

Personnel will:

____ Monitor EBS stations [redacted]

____ Follow exposure control as per Checklist 2.

____ Inquire with persons leaving the area if they could provide rides to carless individuals.

____ Provide assistance to skiffless persons on boats in the harbor.

____ Inform carless individuals to assemble at the Harbor Office.

____ Keep the Harbor Manager informed of the evacuation process.

____ Follow further instructions from the Harbor Manager.

CHECKLIST 6
ROUTE ALERTING

A. ROUTE ALERTING PROCEDURES

HARBOR MANAGER

The Harbor Manager will follow the guidance below when the Sheriff's Department Watch Commander notifies the Port of the failure of sirens.

_____ Check off the number of the siren(s) that failed.

_____ Siren 34 - Diablo Canyon Main Gate
_____ Siren 34a - Light House

_____ Assign personnel to notify the public in the failed siren area.

_____ Give assigned personnel the attached map(s) corresponding to the affected siren(s).

_____ Upon completion of Route Alerting, notify the Sheriff's Department Watch Commander.

Personnel Will:

_____ Obtain portable public address system/bullhorn/vehicle with public address system.

_____ Proceed to area shown for Route Alerting on the Siren Map and drive all streets in the area, providing the following message over the public address system:

> " ATTENTION ! ATTENTION ! Due to a problem at the Diablo Canyon Power Plant, the County Emergency Services Director has activated the Emergency Broadcast System. Tune your radio to [redacted] for official information."

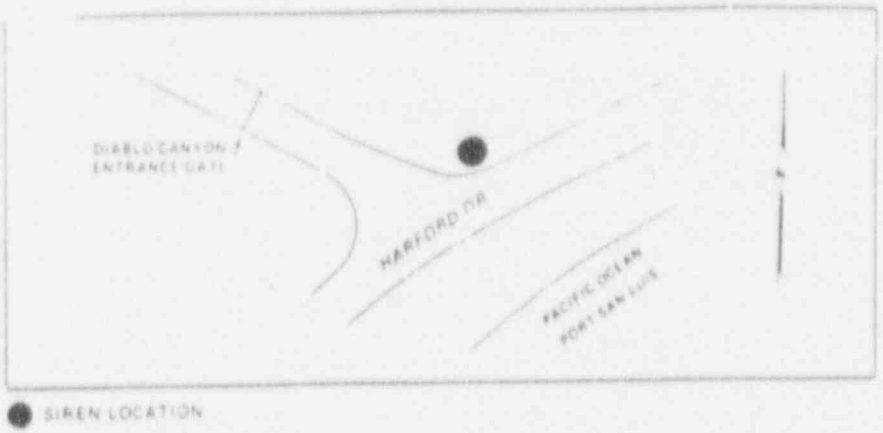
_____ On your map, mark the areas that have received the message.

_____ Repeat the message until the population in the Route Alerting area is notified.

_____ Assist persons in need of more information or transportation.

_____ Notify the Harbor Manager that Route Alerting for your Siren Number is complete.

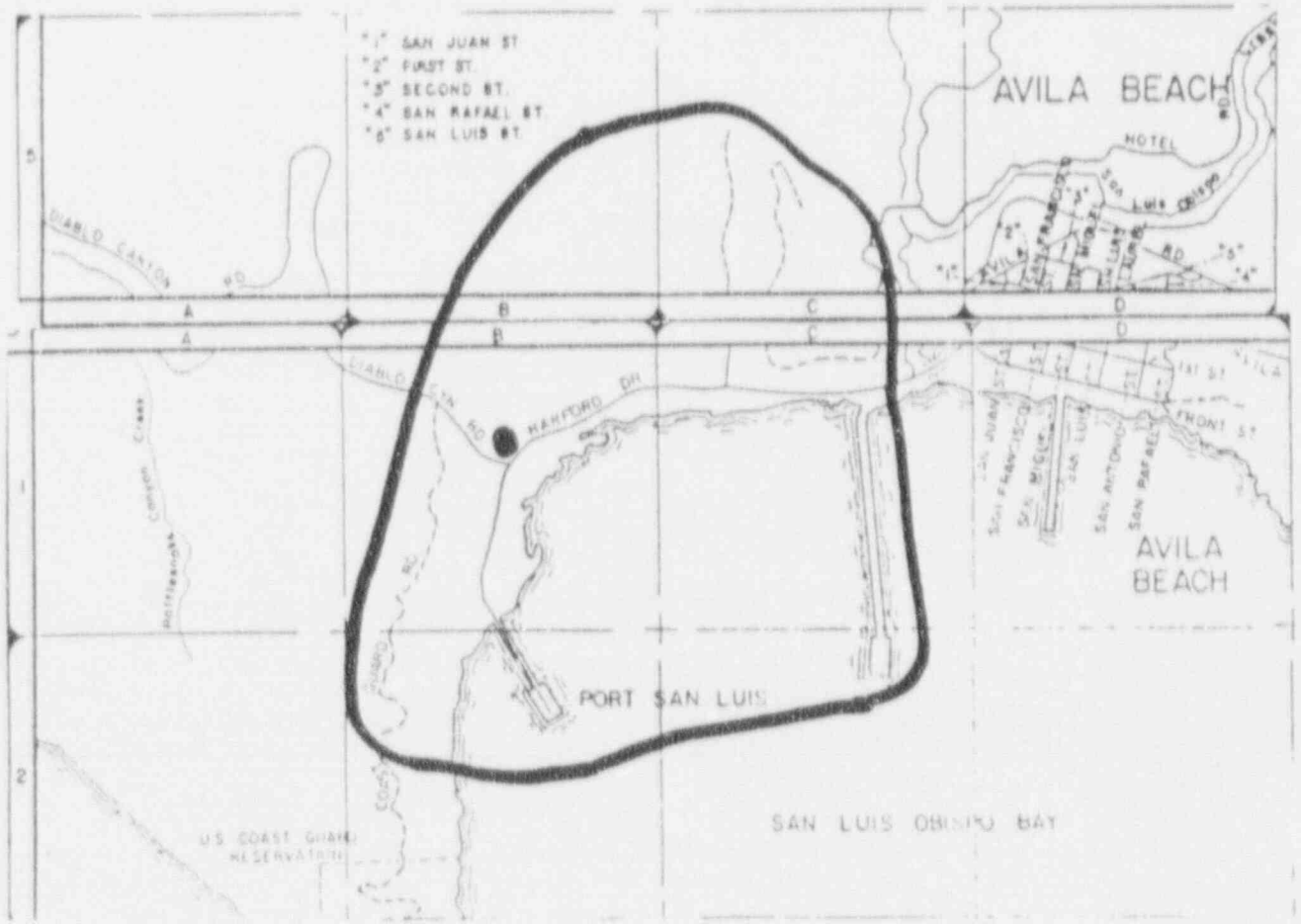
SIREN 34



● SIREN LOCATION

Community: AVILA BEACH	*Route Alerting Agency:* COUNTY FIRE DEPT.
Location: HARFORD DRIVE, DCPP MAIN GATE	
9-1-1 Book Page: 225 *Grid:* B1	*Thomas Bros. Book Page:* - *Grid:* -

ROUTE ALERTING AREA



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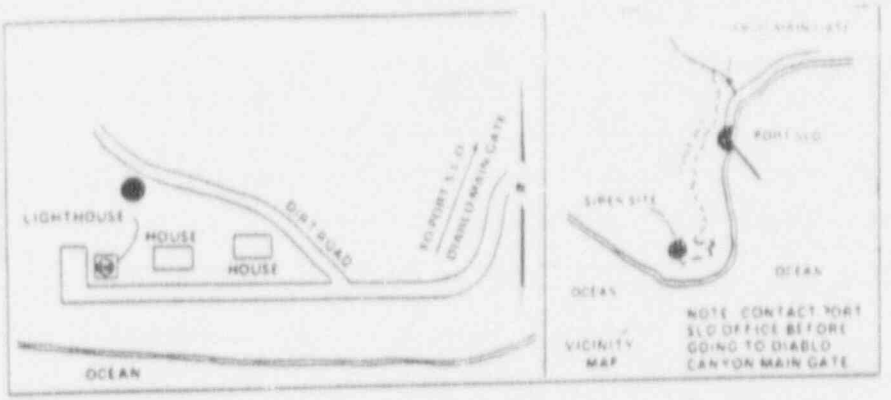
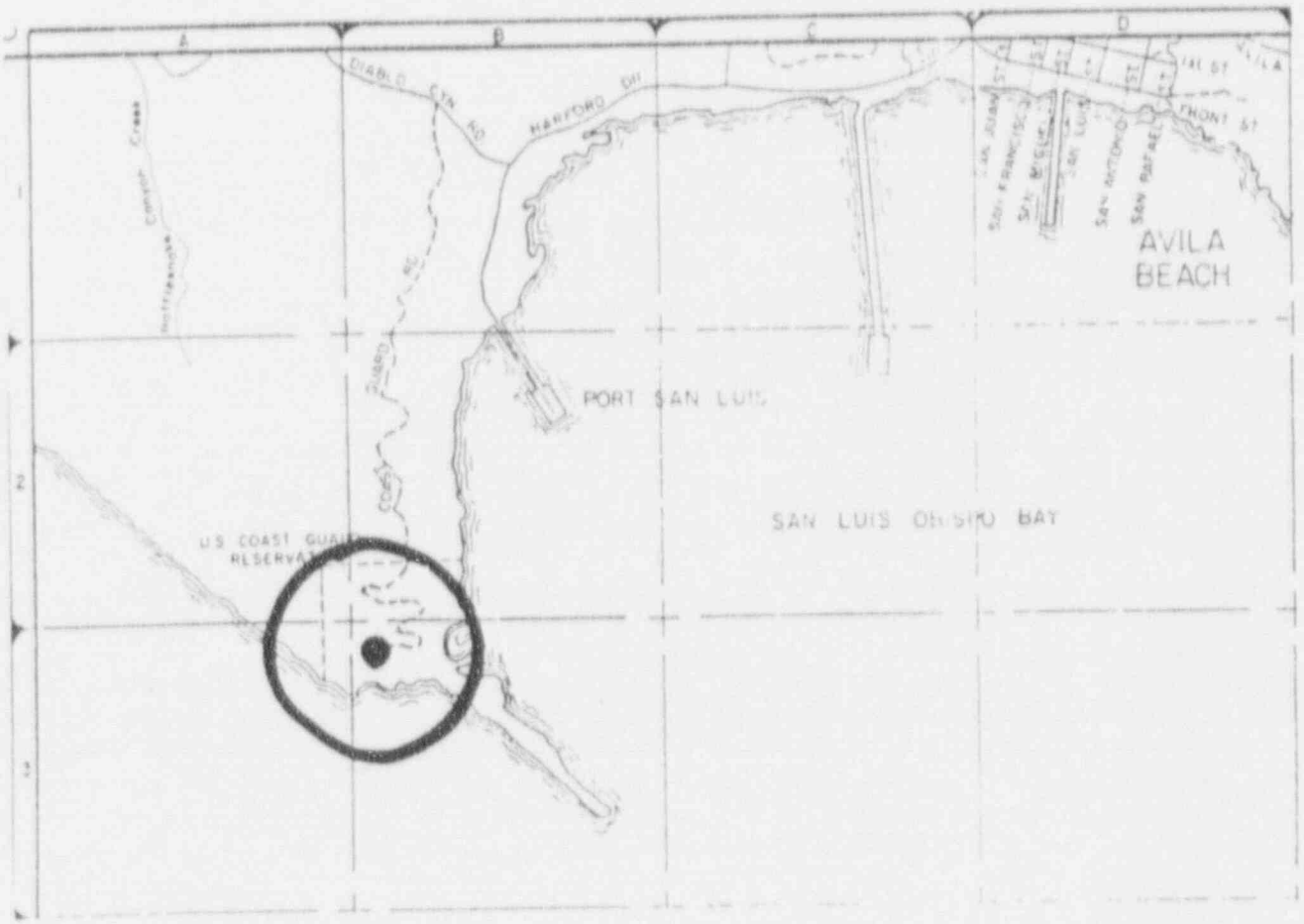


● SIREN LOCATION

Community: AVILA BEACH	*Route Alerting Agency:* PORT SAN LUIS
Location: SAN LUIS OBISPO LIGHT HOUSE	
9-1-1 Book Page: 225 *Grid* B3	*Thomas Bros. Book Page* · *Grid* ·

ROUTE ALERTING AREA



CHECKLIST 7
DEMOBILIZATION

As directed by County Fire or when emergency is downgraded to UNUSUAL EVENT or terminated, the Harbor Manager will:

____ Recall all involved personnel to a designated location.

____ Debrief personnel and request all radiation exposure emergency equipment and records be turned in.

____ Inventory vehicles, equipment and supplies, and document any items missing or damaged.

____ Ready vehicles, equipment and supplies for service.

____ Forward records/reports, dosimetry, etc., to the County Office of Emergency Services as directed.

____ Support County reentry operations as directed.

____ Release personnel as appropriate.

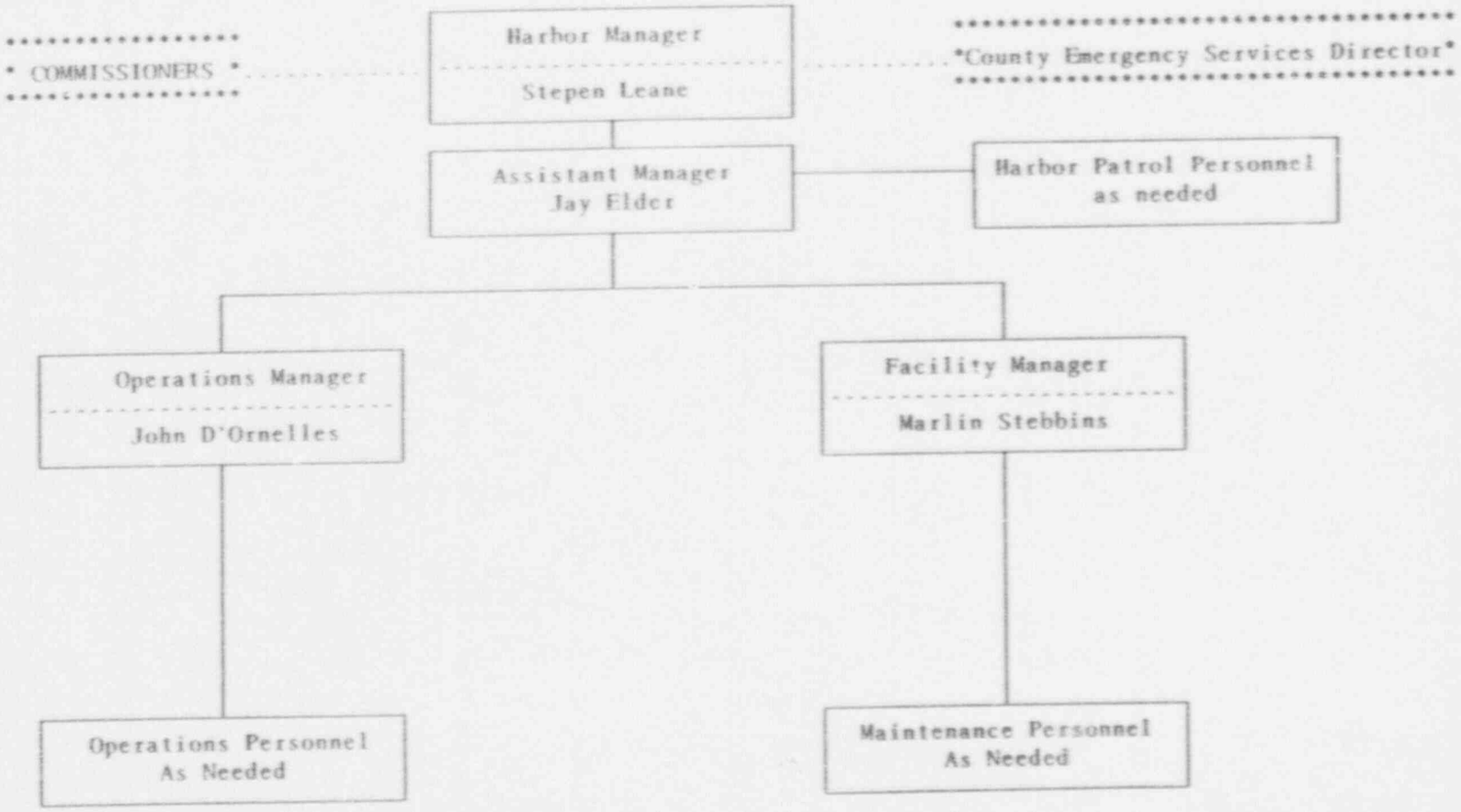
ATTACHMENT A
PORT SAN LUIS HARBOR DISTRICT EMERGENCY PERSONNEL ROSTER

NAME	TITLE	Phone No.	Pager No.
Duty Officer	Harbor Patrol Officer	[redacted]	[redacted]
Mark Dorman	Senior Harbor Patrol Officer		
Marlin Stebbins	Facility Manager		
Stephen Leane	Harbor Manager		none
Jay Elder	Assistant Manager		none
John D'Ornelles	Operation Manager		none

NOTE: Other personnel will be called in as needed using the day-to-day personnel roster

ATTACHMENT B

PORT SAN LUIS
EMERGENCY ORGANIZATION CHART



KEY

———=Lines of Command
.....=Lines of Information/Coordination

06/92

ATTACHMENT C
LIST OF RADIOS AND FREQUENCIES

RADIOS

Port San Luis Base Station communication system consists of a Motorola MCX-1000 (40 Watt) VHF radio along with 3 mobile units (35 Watt) and 15 Motorola Mt-1000 (5 Watt) handheld units.

CALL SIGNS - VHF:

UNIT	CALL SIGN	UNIT TYPES	NO.
Harbor Office	KYZ 664	Base Station	(1)
Harbor Patrol	WRG 5691	Handhelds and Boats	(7/1)
Marine Safety	WHW 918	Lifeguard Handhelds	(2)
Harbor Patrol Truck	WQA 317	Mobile Unit	(1)
Maint. and Operations	KA 5066	Handhelds	(6)
LCM	WXR 7314	Handheld and Mobile	(1/1)

CALL SIGNS - UHF:

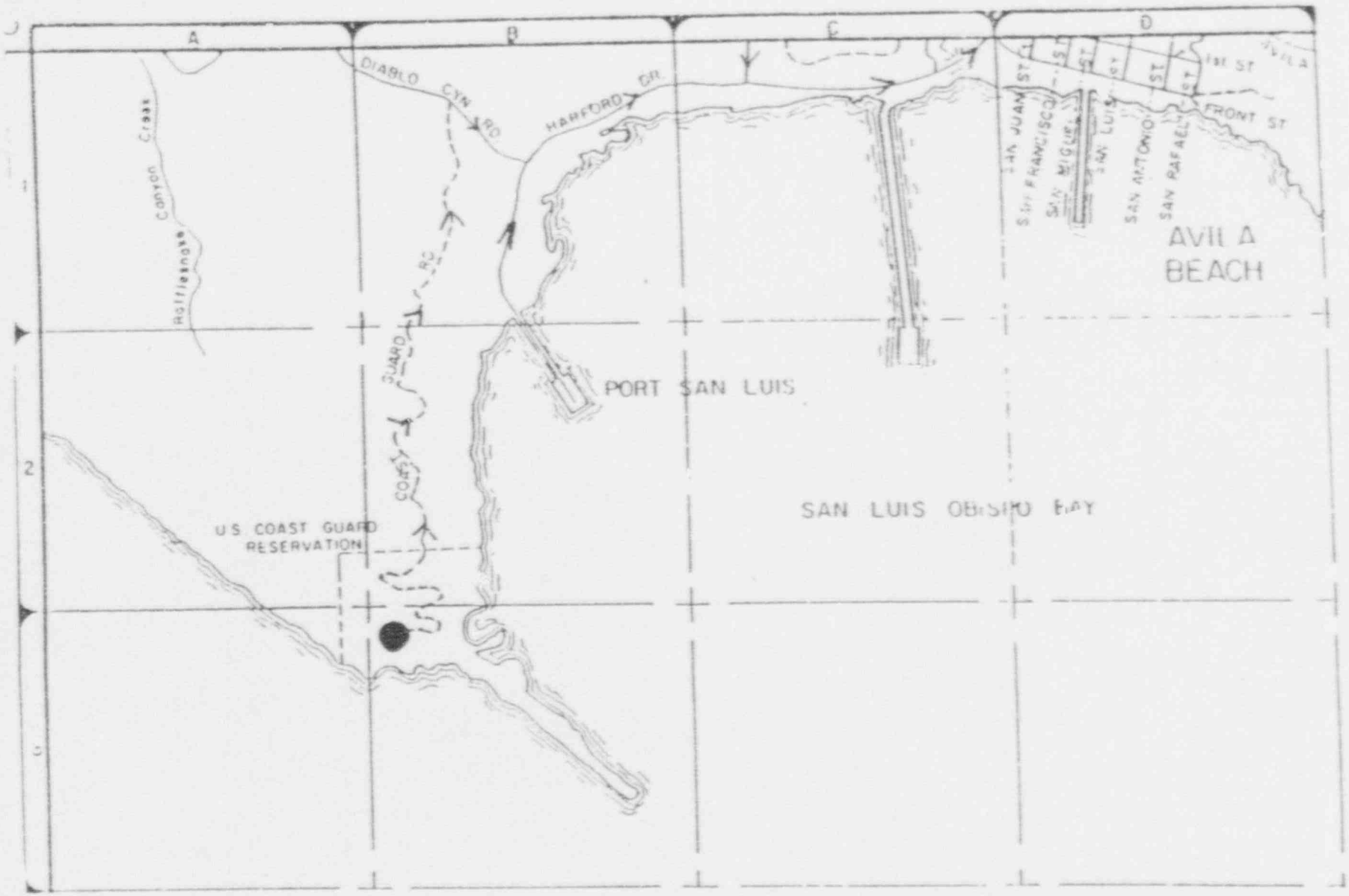
Harbor Office	Station 69	
Harbor Patrol Officers	[redacted]	1 Mobile, 2 Handhelds

FREQUENCIES AND CHANNELS:

PSL CHANNEL	USE	VHF MARINE CHANNEL	FREQUENCY
[redacted]	Port San Luis Operations	(Private)	155.745 KHz
	Marine Call and Distress	(Channel 16)	156.800 KHz
	Port Operations	(Channel 12)	156.600 KHz
	Ship/Ship Communications	(Channel 06)	156.300 KHz
	Ship/Shore Commercial	(Channel 10)	156.500 KHz
	Ship/Shore Port Ops.	(Channel 14)	156.700 KHz
	State/Local Use Only	(Channel 17)	156.850 KHz
	Coast Guard Liaison	(Channel 22)	157.100 KHz
	Coast Guard/U.S. Govt.	(Channel 23)	157.150 KHz

OTHER COMMUNICATIONS CAPABILITIES INCLUDE:

PSL CHANNEL	AGENCY	FREQUENCY
[redacted]	CDF/County Fire	154.385
	Fire White 1 (Mutual Aid)	154.280
	Avila Beach Fire Department	158.940
	Pismo Fire Department	154.145
	Grover/Oceano Fire Departments	154.415



ATTACHMENT D
EVACUATION ROUTES
FROM PORT SAN LUIS

191464

191464

SLO Co OES Rev W 5/28/92

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Emergency Response Plan • San Luis Obispo County Nuclear Power Plant • Emergency Response

LUCIA MAR UNIFIED SCHOOL DISTRICT

• San Luis Obispo County Nuclear Power Plant • Emergency Response Plan • San Luis Obispo County Nuclear Power Plant • Emergency Response Plan • San Luis Obispo County Nuclear Power Plant • Emergency Response Plan • San Luis Obispo County Nuclear Power Plant • Emergency Response Plan • San Luis Obispo County Nuclear Power Plant • Emergency Response Plan • San Luis Obispo County Nuclear Power Plant • Emergency Response Plan • San Luis Obispo County Nuclear Power Plant • Emergency Response Plan • San Luis Obispo County Nuclear Power Plant • Emergency Response Plan • San Luis Obispo County Nuclear Power Plant • Emergency Response Plan • San Luis Obispo County Nuclear Power Plant • Emergency Response Plan • San Luis Obispo County Nuclear Power Plant • Emergency Response Plan • San Luis Obispo County Nuclear Power Plant • Emergency Response Plan • San Luis

Lucia Mar Unified School District

SAN LUIS OBISPO COUNTY
NUCLEAR POWER PLANT
EMERGENCY RESPONSE PLAN

STANDARD OPERATING PROCEDURES
LUCIA MAR UNIFIED SCHOOL DISTRICT
III.54

SAN LUIS OBISPO COUNTY
OFFICE OF EMERGENCY SERVICES
626.200

April 20, 1982
Revised: April 1, 1983
Revised: October 1, 1984
Revised: September 3, 1985
Revised: December 1, 1990
Revised: May 1, 1992

AUTHENTICATION

This Standard Operating Procedure has been approved and is hereby incorporated as departmental policy:

Signed and accepted:

Name: SCOTT R. LATHROP

Assistant Superintendent, Business
Title

May 1, 1992
Date

Revision May 1, 1992 signed and accepted:

Name: SCOTT R. LATHROP

Assistant Superintendent, Business
Title

May 1, 1992
Date

PREFACE

This SOP comprises Section III.54 of the San Luis Obispo County Nuclear Power Plant Emergency Response Plan. Detailed preparedness measures and emergency procedures concerning the operation of this organization are included herein. Part I of the Plan describes the overall County emergency organization and response, while Part II includes implementing instructions to be used by the County Direction and Control group and other key officials and the County Emergency Operations Center (EOC), in directing the emergency response activities.

CONTENTS

I. PRE-EMERGENCY PREPAREDNESS

A. OVERVIEW

1. Purpose: To designate the procedures to be used to protect student and staff or to evacuate school children from threatened protective zone areas as rapidly as possible.

2. Objectives:

a. Delineate responsibilities and tasks of Lucia Mar Unified School District's personnel.

b. Establish lines of authority and coordination when the plan is in effect.

c. Designate areas which are likely to require evacuation.

d. Provide for alerting and warning of persons located in a potential evacuation area.

e. Set up procedures for orderly evacuation.

f. Designate receiving schools for the Lucia Mar Unified School District children.

3. Affected Areas:

a. The following lists schools pertaining to the Lucia Mar Unified School District which fall within the 10 to 20 mile radius.

	SCHOOL	LOCATION	PROTECTIVE ZONE
(1)	Shell Beach Elementary	Shell Beach	Zone 6
(2)	Judkins Middle	Pismo Beach	Zone 6
(3)	Grover City Elementary	Grover City	Zone 10
(4)	Grover Heights Elementary	Grover City	Zone 10
(5)	Ocean View Elementary	Arroyo Grande	Zone 10
(6)	Harloe Elementary	Arroyo Grande	Zone 10
(7)	Paulding Middle	Arroyo Grande	Zone 10
(8)	Arroyo Grande High	Arroyo Grande	Zone 10
(9)	Lopez High	Arroyo Grande	Zone 10
(10)	Oceano Elementary	Grover City	Zone 10
(11)	North Oceano Elementary	Oceano	Zone 10

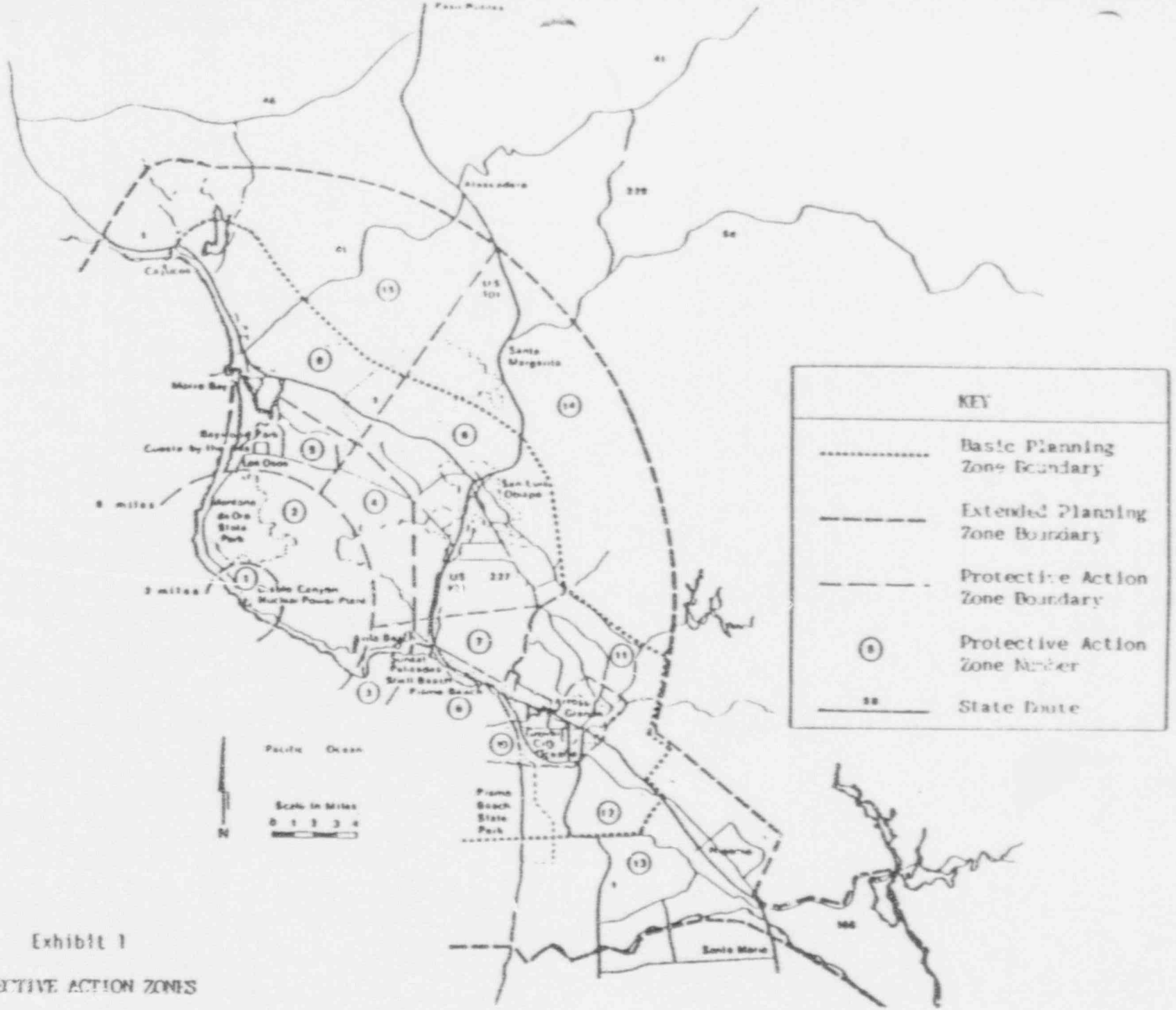


Exhibit 1

PROTECTIVE ACTION ZONES

b. The following lists schools in the Lucia Mar Unified School District which fall within the 20 to 30 mile radius.

	SCHOOL	LOCATION	PROTECTIVE ZONE
(1)	Branch Elementary	Rural Arroyo Grande	Zone 12
(2)	Mesa Elementary	Rural Arroyo Grande	Zone 12
(3)	Dana Elementary	Nipomo	Zone 13
(4)	Nipomo Elementary	Nipomo	Zone 13

c. The following lists potential receiving schools in the following districts:

(1) Allan Hancock Community College

(2) Atascadero School District
- (a) Creston Elementary
- (b) Lewis Elementary
- (c) Monterey Road Elementary
- (d) Santa Margarita Elementary
- (e) Santa Rosa Road Elementary
- (f) Atascadero Junior High School
- (g) Atascadero High School

(3) Paso Robles School District
- (a) Georgia Brown Elementary
- (b) Bauer-Speck Elementary
- (c) Winifred Pifer Elementary
- (d) Paso Robles High School
- (e) Flamson Middle School

(4) Shandon School District
- (a) Shandon High School

(5) Templeton School District
- (a) Templeton Elementary
- (b) Templeton High School

(6) Cambria School District
- (a) Cambria Grammar School
- (b) Santa Lucia School

B. RESPONSIBILITY

All Lucia Mar School District personnel are responsible for completion of this procedure.

C. PREREQUISITES

The procedure shall be completed by properly trained and authorized personnel only.

D. REFERENCES

Five California Administrative Code 560 Government Code Sections 3100, 3101, 8550, et seq., 53019 et seq., Education Code Section 32200, 40047.

E. TASKS

1. District Superintendent shall see that each school school individually develops access plans and procedures which complete the following:

   a. There must be some preparation for private cars that will be entering the campus to pick up students. We must be careful to see that no exits are blocked so as to impede movement of buses.

   b. Assigns school personnel to gather information at emergency site from teachers and to deliver such information to the school principal which records the total number of students in need of bus transportation.

   c. Informs parents of the receiving school to which their children would be assigned in the event of an emergency; therefore the location where they would be picked up.1

   d. Establishes a non-contingency procedure and location for releasing students to parents and maintaining records on students released, in the event it occurs.

   e. Informs parents of the added problems their presence at a time of evacuation would cause and discourages such action on their part if possible.

2. District Superintendent will see that Transportation Director establishes a system which will enable bus drivers and backup drivers to be mobilized during the middle of the school day on off hours.

F. OTHER INVOLVED AGENCIES

The following listed agencies have primary or support role involvement with the Lucia Mar Unified School District Superintendent (DS) in executing this procedure.

1. tification of Public

   a. The EOC will activate the sirens at either

SITE AREA or GENERAL EMERGENCY. The Emergency Broadcast System (EBS) will then broadcast energency instructions. Therefore the schools may be alerted by tone-alert radio from the Sheriff's Office or by the notification procedures initiated by the County Superintendent, or by the Early Warning System (EWS) sirens.

2. Transportation of Students

a. The Transportation Director shall be responsible for the scheduling of buses used for the evacuation of the school population within the Lucia Mar Unified School District.

b. Coordination for needed buses from other districts which have not been ordered to evacuate will be done by the County Engineer, upon request from the Transportation Director.

c. After the evacuation of the students is completed, the Transportation Director will make available any needed buses as requested by the County Engineer.

3. Task Assignments

See Exhibit 3 for task assignments, page 2b.

G. EMERGENCY ORGANIZATION

The emergency organization shall be indicated in Exhibit 2, page 2a.

H. ASSIGNMENTS

Exhibit 3 indicates assignments to department personnel based upon the designated tasks in Paragraph I-E.

I. STAFF

1. District Superintendent's Staff

The number of on-duty personnel at the following facilities are as follows:

Administration	21
Maintenance, Operations and Transportation (MOT)	6
Food Service Department	2
TOTAL	29

2. Transportation Coordinator's Staff

The number of on-duty personnel varies considerably from season to season; when school is in session and in recess; as well as from different hours of the day.

A total of 20 drivers can expect to be on duty between the hours of 5:30 to 9:00 a.m. and between 2:00 to 6:00 p.m.

J. FACILITIES

1. Primary Response Center:

Office of the Superintendent of Lucia Mar Unified School District.

a. Function: Primary receipt point for agency notification (weekday daytime). Primary point for direction and control of emergency response.

b. Location: Arroyo Grande

c. Phone: [redacted]

2. Secondary Response Center:

Transportation Department

a. Function: Primary transportation dispatch and coordination point.

b. Location: 710 Huasna Road, Arroyo Grande

c. Phone: [redacted]

3. Liaison Center:

County Emergency Operations Center of San Luis Obispo County Sheriff's Office.

a. Function: Overall direction and control of emergency response, agency coordination, public information release point. Upon arrival of County Superintendent, becomes the primary point of direction and control of emergency response regarding all schools.

b. Location: Co-located with San Luis Obispo County Sheriff's Office, County Operations Center, off State Route 1, approximately two miles northwest of the City of San Luis Obispo and approximately 10-1/2 miles northeast of the plant.

c. Phone: [redacted]

4. All schools belonging to Lucia Mar Unified School District are as follows:

The following lists schools pertaining to the Lucia Mar Unified School District which fall within the 10 to 20 mile radius: (Dana and Nipomo are between 20 and 30 miles).

School	Location	Direct Line
Shell Beach Elem.	Shell Beach	[redacted]
Judkins Middle	Pismo Beach	
Grover City Elem.	Grover City	
Grover Heights Elem.	Grover City	
Ocean View	Arroyo Grande	
Harlpe Elem.	Arroyo Grande	
Paulding Middle	Arroyo Grande	
Arroyo Grande H.S.	Arroyo Grande	
Lopez H.S.	Arroyo Grande	
Oceano Elem.	Oceano	
North Oceano Elem.	Grover City	
Branch Elem.	Rural Arroyo Grande	
Dana Elem.	Nipomo	
Nipono Elem.	Nipomo	
Mesa Elem.	Rural Arroyo Grande	

The Relocation/Reception and Care Site for Lucia Mar Unified School District students will be:

Allan Hancock Community College, 800 S. College Drive, Santa Maria, California 93454 [redacted]

K. COMMUNICATIONS

All communications will be carried out by telephone or radio.

L. OPERATION EQUIPMENT

1. Vehicles:

a. Legal school buses and general purpose vehicles (see Attachment 5).

2. Safety Equipment for Special Ed. Children:

a. Blankets to protect children suffering trauma, adverse weather conditions.

b. Medical supplies determined individually case by case.

M. EMERGENCY WORKERS GEAR:

1. Kit Conter s (each bus)

a. Pocket ionization dosimeters:
0200 mR range (1)
0-20 R range (1)

b. Integrating radiation dosimeter "TLD" (1)

c. Water jugs

d. Paper cups

e. Potassium Iodide tablets (1-vial) and liquid (as directed by the County Health Department).

f. Eyedropper

2. Assigned to mobilization posts:

a. Dosimeter charger (1)

b. Kits for workers (as specified below)

(1) for each bus driver.

N. TRAINING PROGRAM

The following training will be accomplished for the express purpose of maintaining this Plan.

1. General Briefing:

a. Content:

(1) Briefing of overall plan concept of operations.

(2) Assignments of personnel.

(3) Evacuation routes both on school grounds and off site.

(4) Plan procedures.

b. Audience and frequency: All area personnel will be trained.

(1) Permanent personnel - annually.

2. Alerting and Warning Briefing:

a. Content:

(1) Emergency notification and recall procedures.

(2) Response center activation.

(3) Field team assignments.

b. Audience and frequency: All permanent personnel potentially involved in providing staff for response centers or conducting field operations will be trained annually in preparation for the field exercise.

3. Emergency Worker Exposure Control Briefing and Demonstration:

a. Content:

(1) Background on nuclear reactor accidents, radiation, health effects, Protective Action Guidelines.

(2) Use of and protection afforded by personal protective gear.

(3) Plan procedures relative to use of emergency gear.

b. Audience and frequency: All staff directing or conducting field operations will be trained annually in preparation for the field exercise.

O. DRILLS AND EXERCISES

1. Communications Drill: On a monthly basis, the Sheriff's Office will drill communications with the District Superintendent by tone-alert monitor radio. The drill will establish the capability of the Sheriff to make the notification and verify the operation of the applicable communications equipment. The drill will include instruction on possible radiological content of the messages to assure comprehensive understanding of subject matter.

2. Annual Exercise: The District Superintendent will participate in an annual exercise to be coordinated by the County Office of Emergency Services. The involvement of the District Superintendent in the exercise will include the following:

   a. Alerting the School Principals

   b. Alerting the Transportation Coordinator

   c. Call-up of response personnel

   d. Staffing of response centers

   e. Test of field operations

   f. Implementing corrective actions

P. EQUIPMENT TESTING/CALIBRATION

1. Daily Gear:

   Communications gear used on a daily basis, such as telephones will not need testing.

2. Emergency Gear:

   Communications gear used in emergency or other unusual situations shall be tested as follows:

   a. Tone-alert monitor radios will be tested in conjunction with monthly communications drills.

3. Maintenance of Emergency Worker Gear:

   a. The Transportation Director shall inspect, inventory, and operationally check the kits and kit contents quarterly.

   b. The State Office of Emergency Services will provide routine maintenance and an annual calibration of pocket dosimeters.

   c. The integrating radiation dosimeters (TLD's) shall be exchanged annually, as directed by the County Office of Emergency Services.

   d. Replacement of Potassium Iodide will be as directed by the County Office of Emergency Services.

e. Unused respirators require no maintenance.

4. Testing of Emergency Plan Procedures:

a. District Superintendent will establish a committee for evaluating observer and participant comments on areas needing improvement including procedural changes.

b. District Superintendent will assign responsibilities for implementing corrective actions and ensure that these actions are implemented.

Q. PLAN UPDATE

1. The District Superintendent will review and update emergency telephone numbers annually.

2. In conjunction with the annual exercise, recommendations for Plan modifications, if any, will be forwarded in writing to the County Office of Emergency Services.

3. A committee headed by the District Superintendent will be established for evaluating observer and participant comments on areas needing improvement, including emergency plan procedural changes for his/her respective district.

4. Responsibilities for implementing corrective actions will be assigned by the District Superintendent.

5. District Superintendent will ensure that corrective actions are implemented.

II. NOTIFICATION AND MOBILIZATION

A. RESPONSE BY EMERGENCY CLASSIFICATION

EMERGENCY CLASSIFICATION	RESPONSE
Unusual Event	. No response
Alert, Site Area Emergency General Emergency	. Agency . Emergency workers notified . Emergency operations conducted

B. ALERTING PROCEDURES

See Alerting Diagram, Attachment 1.

C. NOTIFICATION ROSTER

See Attachment 4 for names and telephone numbers of people to be notified.

D. BACK-UP SHIFTS

In the event the emergency lasts longer than 12 hours, the Superintendent, Assistant Superintendent, Business, and Director of MOT would rotate shifts as first in command.

Note: All schools, the district office, the superintendent's car, maintenance vehicles and buses have radios (we also have portable radios available). If telephone lines are not open to all personnel, the radios will be utilized for communication. We also have CB owners in the district who will monitor and relay messages to units in difficult receiving areas.

Exhibit 2

LUCIA MAR UNIFIED SCHOOL DISTRICT

ORGANIZATIONAL FRAMEWORK

CHAIN OF COMMAND

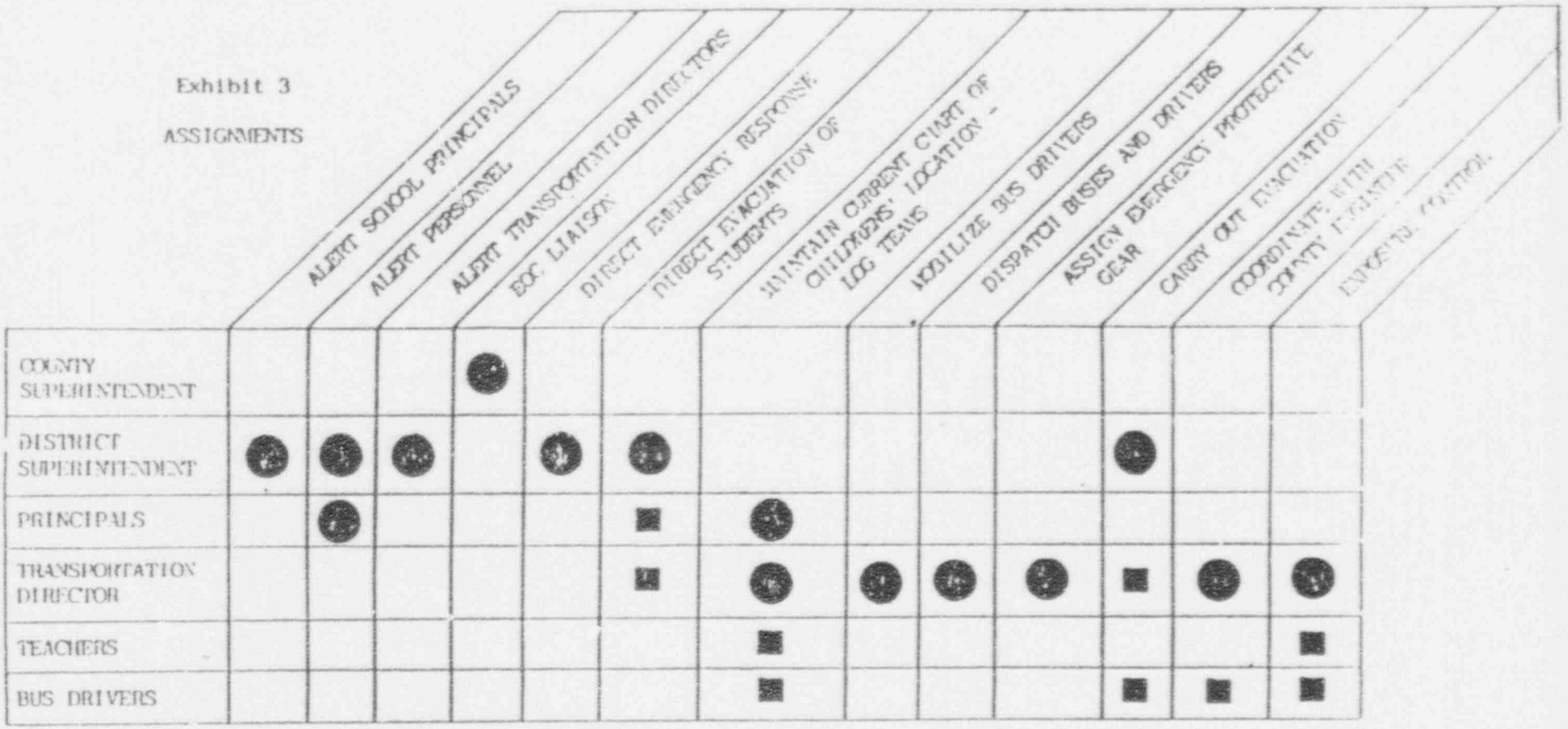
Superintendent

Assistant Superintendent, Business

Director, Maintenance, Operations
and Transportation

Exhibit 3

ASSIGNMENTS



III. EMERGENCY PROCEDURES

A. INITIAL TASKS

1. Schools in Session

a. UNUSUAL EVENT, no response

b. ALERT

(1) District Superintendent, or first in command shall be responsible for the completion of the following tasks:

(a) Notify and alert all personnel at the following locations: (See Notification List, Attachment 4; Message Text, Attachment 2).

1.1 District Headquarters
1.2 Transportation Headquarters

(b) Notify all School Principals of Lucia Mar Unified School District. (See Notification List, Attachment 4; Message Text, Attachment 2).

(c) Notify Transportation Coordinator to begin mobilizing bus drivers and place on standby at corporation yard. (See Notification List, Attachment 4, Message Text, Attachment 2, Evacuating Schools Plan, Attachment 3).

Notification and all subsequent actions will be made on a priority basis depending upon which protective action zones are identified by the County EOC. Schools are organized by such zones in the Notification List, Attachment 4, and in Section A of this SOP.

(d) Notify potential receiving school District Superintendents to notify school principals of the following districts:

1.1 Allan Hancock College
1.2 Atascadero School District
1.3 Paso Robles School District
1.4 Templeton School District
1.5 Cambria School District
1.6 Shandon School District

Note: Evacuating north would be least likely at our options.

(2) School Principals shall be responsible for the completion of the following tasks:

(a) Notify all school personnel.

(b) Issue emergency instructions to all staff.

1.1 Set up procedures for accountability of all students.

1.2 Issue instructions to teachers in order to determine numbers of students needing bus transportation[1] in case of future evacuation.

1.3 Assign messenger information from teachers.

1.4 Report information to District Superintendent or to Transportation Coordinator.

(c) Account for all students' location.

(3) Classroom teachers shall be responsible for the following tasks:

(a) Maintain head count of children at all times and report missing children to Principal.

(b) Determine number of children in classroom needing bus transportation[1] should evacuation be necessary and report to Principal.

1.1 All children will be transported by our buses. Parents will not be refused their children should they arrive on campus. This procedure, however, is not a component of our emergency plan.

(c) Issue emergency instructions to all children as necessary.

[1] Students in attendance that day.

---

[1] Students in attendance that day.

1.1 Instructions for those evacuating on bus.

1.2 Instructions for sheltering.

(d) Prepare supplies for special education students such as blankets or medicine.

(4) Transportation Coordinator shall be responsible for the following tasks:

(a) Mobilize bus drivers and back-ups.

(b) Provide bus drivers from other districts with all necessary procedural information:

1.1 Location of loading points.
1.2 Locations of unloading points.
1.3 Next school to which to report.

(c) Provide bus drivers with navigator if necessary.

(d) Confirm that all buses are serviced properly with full gasoline tanks.

(e) Record the accounts received from school principals of the school children needing bus transportation.

(f) Mobilize and plan the bus fleet to meet the demands. (Evacuating/Receiving Schools Plan, Attachment 3).

(g) Coordinate with the county engineer for additional buses, i.e., Santa Maria High School District, Orcutt Elementary School District.

(5) Building and Grounds/Maintenance shall be responsible for the following tasks:

(a) Alert all maintenance to come to the maintenance yard.

(b) Deliver generators to Transportation, AGHS and the District Office.

(c) Coordinator of Buildings and Grounds will pick up dosimeters at the Arroyo

Grande Fire Department and deliver to Transportation.

(d) Keep personnel on hand for an emergency.

c. SITE AREA EMERGENCY

(1) District Superintendent or first in command shall be responsible for the completion of the following tasks:

(a) Notify and alert all personnel at the following locations: (See Notification List, Attachment 1, Message Text, Attachment 2).

1.1 District Headquarters
1.2 Transportation Headquarters

(b) Notify all School Principals. (See Notification List, Attachment 1, Message Text, Attachment 2).

(c) Notify Transportation Coordinator to mobilize and dispatch drivers and buses to school locations where needed for standby. (See Notification List, Attachment 1, Message Text, Attachment 2).

(d) Notify the President of the receiving school:

1.1 Allan Hancock Community College [redacted]

(2) School Principals shall be responsible for the completion of the following tasks:

(a) All tasks listed under ALERT, for school principals should be completed.

(b) Provide area for parents to pick up students in order to protect against blockage of entrances and exits to the campuses.

(c) Provide for bus loading procedures not to be impeded by any chance parents arriving to pick up students:

1.1 Parents are discouraged from picking up students since traffic will be very heavy. Since some parents will not be able to get to the schools, no student will be left on campus when evacuation procedures are concluded.

1.2 Assign a person to intercept arriving parents before cars are parked to inform them where they can pick up their children (i.e., pre-designated receiving school).

1.3 Have adequate signs provided to direct parents to proper location. Set up contingency procedure for releasing students to parents.

(d) Provide instructions for teachers.

(3) Classroom teachers shall be responsible for the following tasks:

(a) All tasks listed under ALERT, for classroom teachers should be completed.

(b) Mobilize children to be read to evacuate.

(c) Bring all children indoors if any are outside.

(d) In schools with no home room designation for students, will have P.E. students report to gyms or multi-purpose rooms.

(e) Prepare for sheltering and standby.

(f) Follow principal's direction.

(4) Transportation Coordinator shall be responsible for the following tasks:

(a) All tasks listed under ALERT, for Transportation Coordinator should be completed.

(b) Assign emergency worker exposure control kits to all bus drivers and double check kits are complete.

(c) Organize bus fleet with schools on priority basis, based upon identification of zones by EOC.

1.1 Elementary schools within 10-20 mile radius of the affected zones are first priority.

1.2 Middle schools and high schools within 10-20 mile radius of the affected zones are second priority.

(d) Do not dispatch buses until recommendation of which schools are to evacuate is received from EOC and Superintendents.

d. GENERAL EMERGENCY

(1) District Superintendent or first in command shall be responsible for the completion of the following tasks:

(a) Notify and alert all personnel at the following locations: (See Notification List Attachment 4, Message Text, Attachment 2).

1.1 District Headquarters
1.2 Transportation Headquarters

(b) Notify all school principals. (See Notification List, Attachment 4, Message Text, Attachment 2).

(c) Notify Transportation Coordinator to mobilize and dispatch drivers and buses to schools recommended by EOC to evacuate.

(d) Notify the President of the receiving school:

1.1 Allan Hancock Community College [redacted]

(2) School Principals shall be responsible for the completion of the following tasks:

(a) All tasks listed under ALERT and SITE AREA EMERGENCY for school principals should be completed.

(b) Retain all students in classrooms and wait for notification to either shelter or evacuate. If there is no home room designation, students participating in P.E. activities will report to gyms or multi-purpose rooms.

(c) Assign one certificated person to accompany each bus to the designated receiving school.

(d) Inform all school personnel that they are to remain on duty until "ALL CLEAR" signal is given and demobilization procedures can proceed, or until released by Superintendent.

(e) Prepare for the loading of buses maintaining order at all times.

(f) Inform Transportation Coordinator of the following:

1.1 Current status of evacuation
1.2 When buses depart
1.3 When school is empty

(3) Classroom teachers and any other personnel so assigned by principal shall be responsible for the following tasks:

(a) All tasks under ALERT and SITE AREA EMERGENCY for classroom teachers should be completed.

(b) Students will be retained in classrooms. If there is no home room designation, students participating in P.E. activities will report to gyms or multi-purpose rooms.

(c) Endeavor to maintain head count reporting any missing students (enlist aid of student, or students if necessary to monitor this count).

(d) Accompany children on buses as assigned.

(e) Remain on duty until "ALL CLEAR" signal is given and demobilization procedures can proceed, or until released by the Superintendent.

(f) Maintain order at all times.

(g) Prepare students for orderly bus loading.

(h) Administer potassium iodide (KI) to students (the County Health Department will designate individuals who will administer the potassium iodide).

(4) Transportation Coordinator shall be responsible for the following tasks:

(a) All tasks under ALERT and SITE AREA EMERGENCY for Transportation Coordinator should be completed.

(b) Upon recommendation from EOC, dispatch buses to evacuating schools if not done already.

(c) Transport students to the south by bus to pre-assigned schools. Upon recommendation of EOC, transport students north to Atascadero should prevailing winds become an important factor.

(d) Match receiving schools to evacuating schools in such fashion as to minimize the running time of the first evacuation trips.

(e) Have maintenance workers available to back-up drivers to insure that all equipment is used.

2. Schools not in Session

a. UNUSUAL EVENT, no response.

b. If an emergency ALERT or greater emergency is announced after school hours but prior to the time buses make their runs in the mo ing, the following procedures will go into effect:

(1) The EOC will notify the County Superintendent of the nature of the

condition and which areas are to be closed, if any. The County Superintendent will notify the District Superintendent.

(2) The District Superintendent will issue a news release stating which school(s) will be closed for the day and which will be open.

(3) The District Superintendent will arrange to have telephone calls made to the personnel of the school(s) to be closed, instructing these personnel not to report until the "ALL CLEAR" signal is given, using the following procedures.

(a) Superintendent will call all principals who in turn will call the certificated personnel, secretary, and custodians of their schools.

(b) Assistant Superintendent, Business will call all personnel in the Division of Educational Services.

(c) Director of MOT will call all personnel in Buildings and Grounds.

(4) The District Superintendent's office will notify the Director of MOT to call bus drivers of closed schools to cancel their runs and instruct drivers to report for duty to be scheduled as needed.

(5) The District Superintendent will notify the Director of Food Services of the school(s) being closed. At that time, it will be decided whether cafeteria workers at closed schools would be directed to report to a central kitchen.

(6) The EOC will notify the District Superintendent of an "ALL CLEAR".

3. <u>Schools not in Session, Buses have started runs.</u>

a. UNUSUAL EVENT, no response.

b. ALERT.

(1) The EOC or County Superintendent will notify the District Superintendents and will arrange, upon recommendation from EOC, which schools are to remain open or

closed, depending on level of emergency.

(2) The District Superintendent may issue a news release regarding the schools to be closed and the schools to remain open.

(3) If ALERT is declared under this condition the following will occur:

(a) All personnel will report to schools and stand by.

(b) Buses will complete their runs and deliver children to usual schools.

(c) Emergency status will remain until "ALL CLEAR" close out is given or emergency level is escalated.

c. If SITE AREA EMERGENCY is declared under this condition, the following will occur:

(1) Upon recommendation from the EOC, the County Superintendent may arrange with the District Superintendents for the closing of those schools whose bus runs have not commenced.

(2) If sirens are sounded or not, drivers will continue runs and deliver students to their schools.

(3) Drivers will then report to Transportation Coordinator.

(4) SITE AREA EMERGENCY procedures will continue as specified.

d. If GENERAL EMERGENCY is declared under this condition, the following will occur.

(1) Upon recommendation from the EOC, the County Superintendent may arrange with the District Superintendents for the closing of those schools whose bus runs have not commenced.

(2) If sirens are sounded or not, drivers will continue runs to assure that no children are left waiting for the bus whose parents have left for work.

(3) Children will be delivered to school and all will await emergency instructions to

either evacuate or shelter.

B. NOTIFY EMERGENCY WORKERS

1. Preparatory Actions

a. Preassign staff to assist in making initial notification phone calls.

b. Preassign individuals and numbers to be called by each staff member.

c. Quarterly update names and telephone numbers.

d. If assigned staff is not present, first in charge shall assign as many staff members as possible to notification team while leaving one line open.

2. Notification Team

As many staff members as possible to notify the following of emergency level status and place on standby at tone alert monitor radio. (See Notification List, Attachment 4, Message Text, Attachment 2, and Alerting Diagram, Attachment 1).

a. Call school principals in charge of the following schools:

(1) Notify and confirm that the following have been notified before proceeding to the second list:

Shell Beach Elementary, Shell Beach, [redacted]

(2) After the above have been notified, proceed to the following list in priority order:

Judkins Middle, Pismo Beach [redacted]

Grover City Elementary, Grover City [redacted]

Grover Heights Elementary, Grover City [redacted]

Ocean View Elementary, Arroyo Grande [redacted]

Harloe Elementary,, Arroyo Grande [redacted]

Paulding Middle, Arroyo Grande [redacted]

Arroyo Grande High School, Arroyo Grande

[redacted]

Lopez High School, Arroyo Grande

[redacted]

Oceano Elementary, Oceano

[redacted]

North Oceano Elementary, Grover City

[redacted]

Branch Elementary, Arroyo Grande

[redacted]

Dana Elementary, Nipomo

[redacted]

Nipomo Elementary, Nipomo

[redacted]

Mesa Elementary, Arroyo Grande

[redacted]

b. Notify the receiving school president of the emergency level status and to place on standby:

(1) Allan Hancock Community College

[redacted]

c. District Superintendent or first in command will contact the Transportation Coordinator directly.

(1) Determine if assistance is needed for notification of bus drivers.

d. Assist Transportation Coordinator's secretary in notification of bus drivers, if necessary, after all other notification is complete.

e. School principals shall notify all teachers and personnel and place on standby.

f. District Superintendent and school principals shall do the following:

(1) At ALERT notify all parties to stand by.

(2) At SITE AREA EMERGENCY notify all parties to begin procedures for:

(a) Accountability of students
(b) Possible sheltering
(c) Possible evacuation
(d) Receiving evacuees

(3) Upon recommendation from EOC at GENERAL EMERGENCY, notify all involved parties to either:

(a) Shelter
(b) Evacuate

C. SHELTER STUDENTS

1. In the event the EOC recommends the sheltering of pupils, follow the following procedures.[2]

a. Remain inside. Cups and water should be available for all classrooms.

b. Ensure all external doors and windows remain closed and ventilating systems are shut down.

c. Cover all possible air leaks with plastic or other impermeable material.

e. All school personnel, certificates and classified, will remain on duty until excused by the Superintendent.

d. Teachers will maintain head count of students at all times.

f. If the "ALL CLEAR" signal is given before darkness, the Superintendent will notify the Transportation Coordinator to make the usual runs. Walking students will walk home.

g. County Superintendent of Schools will be responsible for any new news releases.

h. If the "ALL CLEAR" signal is not given until after darkness has fallen, pupils will be kept at the school(s) overnight. Pupils may be released to parents/guardians upon written notice.

D. EXPOSURE CONTROL

1. General Procedures:

a. Bus drivers will be equipped with exposure control gear. If potassium iodide tablets are included in this equipment, the medication will be administered by those people designated by the County Health Department.

[2] This District desires evacuation rather than sheltering and will strive to do so in case of an emrgency.

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b. Bus drivers shall wear TLD badges and carry dosimeters at all times if evacuating students.

2. Decontamination Procedures:

a. Decontamination procedures will be determined by the EOC, including the disposal of contaminated clothing.

b. The EOC will designate locations for taking showers, in case decontamination is determined.

c. The District will request needed clothing from such social agencies as the Red Cross and the Salvation Army. If necessary, pleas could be made to the public via the news media.

3. Bus Driver's Exposure Control Gear:

a. Bus drivers will be equipped with the following before any evacuation runs are made:

(1) Assigned to mobilization posts:

(a) Dosimeter charger *
(b) Kits for each bus driver (specified below)

(2) Kit contents for each driver:

(a) Pocket ionization dosimeters; 0-200 mrem range * 0-20 mrem range *
(b) Integrating radiation dosimeter "TLL" *
(c) Water jugs
(d) Paper cups
(e) Potassium Iodide tablets (1-vial) and liquid (if so ordered by the County Health Department)
(f) Eyedropper

Note: *All measurement equipment and instruments will be calibrated on a periodic basis, as determined by the State and County Health Departments.

IV. DEMOBILIZATION PROCEDURES

A. NORTH ZONE AND SOUTH ZONE

1. Upon completion of evacuation, buses will return to corporation yards.

2. Teachers will remain with children at receiving schools until further time when they are taken home or to a reception center.

3. Bus drivers will report back to corporation yard, or designated locations as determined by the County Engineer, when all children have been evacuated and will provide any assistance as requested by the County Engineer.

4. In the event emergency lasts longer than 8 hours, childrens' parents will be instructed to collect children if possible. If not possible, children will be bused to reception center.

5. ALL CLEAR is given upon notice from EOC.

   a. If "ALL CLEAR" is announced before pupils have a change to be evacuated from their home schools, the school(s) will follow normal routine.

   b. If "ALL CLEAR" is given before the school day is over, and pupils are at an evacuation center, the pupils will be returned to their home school(s).

   c. If "ALL CLEAR" is given after school day is over and daylight still exists, pupils will be returned to their home school(s).

   d. Elementary pupils, K-3, will be kept at school by the principal and teachers until parents/guardians pick them up.

      Walkers in grades 4-6 and secondary pupils will walk home; bused pupils will be bused home.

   e. If "ALL CLEAR" is given too late to utilize daylight, pupils will be bused to the reception center, unless parents/guardians pick up their children. Children to be released only upon written notice.

      (1) The Superintendent will alert the Director of Food Services.

      (2) The Superintendent will notify the Director of Transportation.

      (3) In the morning, pupils will be fed and bused home to prepare for new day before following regular schedule.

(4) All news releases will be handled by the County Superintendent at the EOC.

V. RE-ENTRY PROCEDURES

A. PROCEDURE

1. Notify all personnel that re-entry can proceed.

2. Establish normal duty functions.

VI. DEFINITIONS AND ACRONYMS

Accident - An uncontrolled event which has the potential for creating an emergency condition.

Air Sampling - The collection and analysis of a small volume of air to measure the concentration of radioactivity or to detect the presence of radioactive substances.

Alert - Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. 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 that is necessary to make decisions to implement specific emergency measures.

Basic Emergency Planning Zone (Basic EPZ) - The State of California Nuclear Power Plant Emergency Response Plan area enclosed by a boundary with a minimum radius of ten miles but which is enlarged for each nuclear power plant to include areas where protective actions may be required. (The range of protective actions includes total evacuation.)

Corrective Actions - Those emergency measures taken to ameliorate or terminate an emergency situation at or near the source of the problem in order to prevent an uncontrolled release of radioactive material or to reduce the magnitude of a release, e.g., shutting down equipment, fire fighting, repair, and damage control. Corrective actions are taken by the power plant operator.

Contamination (Radioactive) - Deposition of radioactive material in any place where it may harm persons or make products or equipment unsuitable or unsafe for some specific use. The presence of unwanted radioactive matter.

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 removal or reduction of contaminated radioactive materials from a surface. Usually accomplished by brushing off or washing an area with one of several compounds.

Direction and Control Group - Those in charge of the County Emergency Organization - includes the Emergency Services Director as the top individual and four other members, the County Sheriff, County Fire Chief, County Engineer and County Health Officer.

Dose, Radiation - Quantity of radiation absorbed, per unit of mass, by the body or any portion of the body. (Rem is a unit of dose measurement.)

Dose Rate - The amount of radiation to which an individual would be exposed per unit of time. (Measured in rads per second or rads per hour.)

Dosimeter - An instrument for measuring and registering total accumulated exposure to penetrating ionizing radiations.

Emergency Situations or conditions which have the potential for causing damage to life or property and/or which may lead to offsite radiological hazards.

Emergency Action Levels (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 thresholds for initiating such specific emergency measures as designating a particular class of emergency, initiating a notification procedure, or initiating a particular protective action.

Emergency Measures - A collective term encompassing the assessment, corrective, and protective actions taken during the course of the emergency condition.

Emergency Operations Center (EOC) - An offsite location from which control and/or coordination of offsite emergency actions are effected. The center will be staffed by key County emergency personnel charged with overall coordination and implementation of offsite emergency operations and protective actions for the public.

Emergency Planning Zone (EPZ) - A nominal ten-mile radius around the plant which potentially could be in the plume exposure pathway. (Established by federal criteria, 10DFR50.33.)

Emergency Services Coordinator - A member of the Technical Support Staff of the County Emergency Organization acting under the Emergency Services Director.

Emergency Services Director (ESD) - A member of the Direction and Control 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 potential hazard to a safe area.

Extended Emergency Planning Zone (Extended EPZ) - The State of California Nuclear Power Plant Emergency Response Plan area enclosed by a boundary beyond the Basic EPZ to include the area

where protective actions (evacuation and/or sheltering in particular sectors) may be required.

General Emergency - Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. 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.

Low Population Zone (LPZ) - The area immediately surrounding the exclusion area which contains residents, the total number and density of which are sure that there is a reasonable probability that appropriate protective measures could be taken in their behalf in the event of a serious accident (10CRF100.1). For Diablo Canyon Power Plant this is an area encompassed by a radius of 6.2 statute miles (10KM).

Notification of Unusual Event - Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant. 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 Diablo Canyon Power Plant property line.

Onsite - Any 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.

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.

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 materials. 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.

Radiological Emergency - A situation, excluding events from nuclear warfare, leading to a release of radioactive materials at or produced by a fixed nuclear facility of a magnitude that exceeds or may exceed protective action guides.

Radiological Monitor - An individual trained in the use of field radiation detection instruments who is assigned radiological monitoring duties.

Radiological Monitoring - The operation of locating and measuring radiation by means of survey instruments which can detect and measure radiation.

Recovery Actions (offsite) - Actions taken after the emergency to restore the affected area, as nearly as possible, to the pre-emergency condition.

Rem (Acronym for Roentgen Equivalent Man) - 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.

Shelter - A structure or other location offering shielding from nuclear radiation in the environment.

Site Boundary - The perimeter surrounding the restricted area within which the power plant lies. For Diablo Canyon, an approximate 1/2 mile radius from the plant may be taken as the site boundary.

Site Area Emergency - Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public.

Technical Support Center (TSC) - The TSC is separate 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.

Thyroid Blocking Agent - or thyroid prophylaxis, stable (nonradioactive) 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.

Unusual Event - See "NOTIFICATION OF UNUSUAL EVENT".

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.

B. Abbreviations and Acronyms

AMS - Aerial Monitoring System (DOE)

Basic EPZ - Basic Emergency Planning Zone

CalTrans - California Department of Transportation

CAO - County Administrative Office, Officer

CAP - Civil Air Patrol

CDF - California Department of Forestry

CFR - Code of the Federal Register

CHP - California Highway Patrol

CLETS - California Law Enforcement Telecommunication System

CNG - California National Guard

DHS - California Department of Health Services

DMS - California Department of Health Services, Disaster Medical Services

DOD - U.S. Department of Defense

DOE - U.S. Department of Energy

DPR - California Department of Parks and Recreation

EARS - Environmental Assessment and Response System

EBS - Emergency Broadcast System

EDAC - Earthquake Damage Assessment Center

EOC - County Emergency Operations Center

EOF - PG&E Emergency Operations Facility

EPA - U.S. Environmental Protection Agency

EPZ - Emergency Planning Zone

FEMA - Federal Emergency Management Agency

IPZ - Ingestion Planning Zone

NAWAS - National Warning System

NCRP - National Council on Radiation Protection

NRC - U.S. Nuclear Regulatory Commission

NWS - National Weather Service

OES - California Office of Emergency Services

PG&E - Pacific Gas & Electric Company

PIO - Public Information Officer

RHS - California Department of Health Services, Radiologic Health Section

SOP - Standard Operating Procedure(s)

TLD - Thermoluminescent Dosimeter

UDAC - Unified Dose Assessment Center

VII. HAZARD ASSESSMENT:

A. Situation

The Diablo Canyon Nuclear Power Plant, operated by the Pacific Gas and Electric Company (PG and E), is located on the coast approximately 12 miles southwest of the city of San Luis Obispo (see Figure 1.4-1). The plant contains two power generating units, one of which is completed. The second power generating unit is scheduled for operation in the future. Each unit is a pressurized water-type reactor having an electric power generating capacity in excess of 1,000 megawatts.

The plant is designed to use slightly enriched uranium dioxide (U02) as a fuel. This fuel poses no major concern in its unirradiated state since it is of very low radioactivity. However, after being in the core during operation of the reactor, the fuel becomes extremely radioactive from the 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 principle deterrent to an accident is prevention through correct design, construction and operation, which assures that 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 small.

B. Radiation and Hazards[3]

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.

[3]Sub-sections B, C and D of this section are extremely drawn from the January 1981 deraft version of the California Nuclear Power Plant Emergency Response Plan.

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[3]Sub-sections B, C and D of this section are extremely drawn from the January 1981 draft version of the California Nuclear Power Plant Emergency Response Plan.

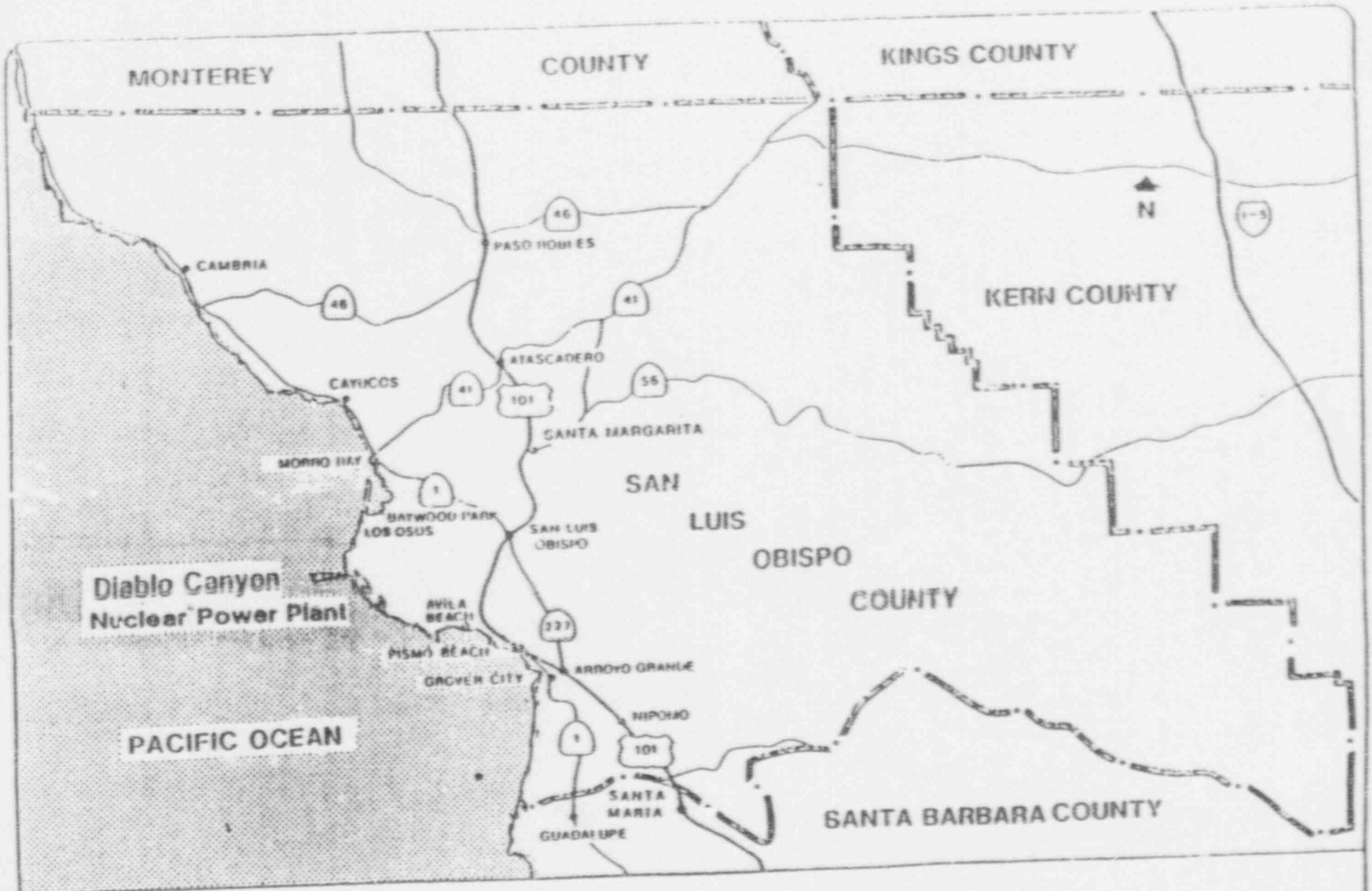

Figure I.4-1

REGIONAL LOCATION MAP

There are two types of radiation that must be considered in nuclear power plant emergency response planning -- beta particles and gamma rays. The 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 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 re-arrangement. 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 cell death.

Gamma rays are a type of electromagnetic radiation also released from the nucleus of an atom. Because they have no mass, they can penetrate matters 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 of the emitting material.

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 exposure 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 Table 1.4-1 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% of the population receiving the whole body dose.)

Table 1.4-1

RELATIONSHIP OF WHOLE BODY DOSE TO HEALTH EFFECTS

Nature of	Representative of absorbed dose of whole body (rem)
Minimal dose detectable by chromosome analysis or other specialized analyses, but not by hemogram	5-25[a]
Minimal acute dose readily detectable in a specific individual (e.g. one who presents himself as a possible exposure case)	50-75[a]
Minimal acute dose likely to produce vomiting in about 10% of people so exposed.	75-125[a]
Acute dose likely to produce transient disability and clear hematological changes in a majority of people so exposed	150-200[a]
Median lethal dose for single short exposure, no medical treatment	300[a]
Median lethal dose for a single short exposure, supportive medical treatment (e.g., antibiotics and	510[b]

[a] Source: Basic Radiation Protection Criteria, National Council on Radiation Protection and Measurements, NCRP report No. 39 January, 1971.

[b] Source: Reactor Safety Study: An Assessment of Risks in U.S. Commercial Nuclear Power Plants, (WASH-1400, NUREG 75/-14) U.S. Nuclear Regulatory Commission, October, 1975.

1. Acute Effects

Acute effects are those occurring within the first year following exposure. The range of doses over which early illnesses could occur is narrow. Assuming supportive medical treatment is received, the individual risks of early illness range from a 30% chance at 150 rem, to an 80% chance at exposures greater than 300 rem. The chance of incurring early illnesses that might require treatment become negligible at doses below about 55 rem. The threshold of detectable changes in blood chemistry during the period shortly after irradiation is commonly associated with doses of about 25 rem. At such dose levels there is only a slight chance of even blood chemistry changes being observable.

Early fatalities are a function of irradiation dose to the bone marrow. Assuming supportive medical treatment is received, the individual risks of early fatalities within 60 days range from chances of 3% at 400 rem, to 50% at 510 rem (the so-called "LD-50" value), to 100% at 615 rem.

2. Chronic Effects

Delayed chronic effects may be of somatic (physical) or genetic origin. The most common and visible delayed health effects are somatic in origin and include solid cancers of all varieties, as well as leukemia, bone cancer, etc.

Individual risks of incurring delayed effects after radiological exposure are quite low. In fact, the risks are so low that the exposure does not automatically mean that somatic or genetic health effects will occur in any particular individual.

Biological effects would be expected to occur at random and in relatively small numbers within a large population segment, if all were exposed to radiation. For example, even if an individual incurred a large dose (i.e., a dose sufficient to result in early illness), the potential risk of incurring delayed somatic fatalities would not be expected to exceed values of about 1:100. Lower exposures would result in proportionally lower risks. For example, 5 to 8 additional cancer deaths would be expected if each of the approximately 100,000 people in the Diablo Canyon Planning Zone received a dose of 0.5 rem (the general population whole body exposure limit). Of these 100,000 people, approximately 16,000 cancer deaths would be expected from natural cancer incidence.

For a given radiation exposure, the total risk of incurring genetic effects is about the same low value that is projected for somatic effects. However, genetic effects may be expected to occur over very long time intervals (i.e., many generations). Fully half of the statistical total of projected genetic effects would be expected to occur after a 140 year period following exposure. Thus the relative number of genetic effects observed during the generation in which early or delayed somatic effects might occur would be much smaller than the number of observed somatic effects. Since the natural incidence of serious human disorders of genetic defects is quite large (roughly 20% of liveborn offspring suffer from such defects), the incremental effects of radiation-induced genetic risks resulting from accidental irradiation would be expected to be small and difficult to detect with confidence.

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.

C. 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 of 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 1.4-2)

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* Both California and the Federal Government have established standards for radiation exposure. California standards are typically more stringent. The limits adopted in this section generally follow the more restrictive State statutes contained in the California Administrative Code, Title 17, Public Health and are taken from the State Plan.

Table 1.4-2

EXPOSURE CRITERIA

GENERAL POPULATION

* Protective Action Guidelines[1] (PAG's)

Whole Body:	0.5-5 rem, Ca.
	(1-5 rem, U.S. EPA)
Thyroid:	5-25 U.S. EPA/Ca.

EMERGENCY WORKERS

* Occupational Exposure Limits[2]

Whole Body:	1.25 rem per calendar quarter
Extremities:	18.75 rem per calendar quarter

* Extraordinary Emergency Operations[3]

Whole Body:	25 rem
Extremities[4]:	100 rem (125 rem total)
Thyroid:	125 rem

* Lifesaving Actions[5]

Whole Body:	75 rem
Extremities[4]:	200 rem (275 rem total)
Thyroid:	no limit[6]

1. U.S. EPA PAG's used except for whole body (see text).
2. California, Title (see text).
3. Source: U.S. EPA (See text for definition).
4. Indicated extremity dosage is in addition to whole body limit.
5. Source: U.S. EPA
6. See text.

Table I.4-3

RECOMMENDED PROTECTIVE ACTIONS TO REDUCE WHOLE BODY AND THYROID DOSE FROM EXPOSURE TO A GASEOUS PLUME

Projected Dose (rem) to the Population	Recommended Actions[1]	Comments
Whole Body - less than 0.5[2] Thyroid - less than 5	No planned protective actions.[3] Offsite authorities may issue an advisory to seek shelter and await further instructions Monitor environmental radiation levels.	Previously recommended protective actions may be reconsidered or terminated.
Whole Body - 0.5 to 5 Thyroid - 5 to 25	Seek shelter as a minimum. Consider evacuation/unless constraints make it impractical. Monitor environmental radiation levels. Control access to affected areas.	If constraints exist to prevent full-scale evacuation, special consideration should be given for evacuation of children and pregnant women.
Whole Body - 5 and above Thyroid - 25 and above	Conduct mandatory evacuation. Monitor environmental radiation levels and adjust area for mandatory evacuation based on these levels. Control access to affected areas.	Sheltering is an alternative if evacuation can not be promptly accomplished.

1. These actions are recommended for planning purposes. Protective action decisions at the time of the incident must take existing conditions into consideration (e.g., weather, plume arrival time).

2. The value of 0.5 rem whole body is based upon guidance from the State of California.

3. Officials may implement initial precautionary actions in keeping with the principle of maintaining radiation exposures as low as reasonably achievable.

1. General Population

a. Whole Body Exposure: The Environmental Protection Agency (EPA)[1] recommends taking protective actions to protect the general population from exposure to airborne radioactive materials when the projected whole body gamma dose is 1-5 rem. The lowest value should be used if there are no major local constraints in providing protection to that level, especially to sensitive populations. Local constraints, such as very dense fog, may make lower values impractical to use, but in no case should the higher value be exceeded in determining the need for protective action.

The State Plan refers to a limit of 0.5 rem for maximum projected whole body dose in any one year, which is quoted from Section 30268 of the California Administrative Code, Title 17, Public Health. Based upon consideration of this statute and the EPA guidelines, the State Plan indicates protective actions should be initiated when projected doses exceed 0.5-5 rem with 0.5 rem the preferred guide.

b. Effluent Releases: Section 30269 of Title 17 limits concentrations of radioactive materials that may be released to uncontrolled areas. These limits are listed in Section 30355, and are predicated on a 0.5 rem dose if exposures and concentrations are continuous over the entire year.

c. Thyroid Dose: Radioactive iodine concentration in the thyroid of persons exposed to radioactive iodines 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% 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 to 25 rem and are to be used in California, according to the State Plan.

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[1] Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (EPA-520/1-75-001), U.S. Environmental Protection Agency, Revised June, 1979, corrected February, 1980.

2. Emergency Workers

Any person engaged in operations required to mitigate the effects of an accident is an emergency worker for the purpose of the plan. 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 Section 1.7 of this plan.

a. Emergency Operations: If an accident occurs, emergency operations will be necessary to save lives and reduce escalation of the radiological problem. It is possible that emergency workers who are involved may be exposed to radiation and contaminated while carrying out their duties. All possible measures will be taken to limit radiation exposure of emergency workers to those values and conditions as described in Section 30265, Title 17. This section limits whole body doses to 1.25 rem per calendar quarter except under certain specified conditions. Hands and forearms may not receive more than 18.75 rem per calendar quarter. California statutes do not indicate a thyroid dose guide, hence the EPA guidelines of 125 rem will be adopted. However, when specific lifesaving actions or extraordinary emergency operations are required, these limits may be increased on a voluntary basis, to those indicated below. Persons receiving exposures indicated below shall be provided expert medical treatment, consultation and service.

b. Lifesaving Actions: If, as a result of an accident, entry into a radiation area is necessary to search for and remove injured or trapped persons, exposure limits described in 2.a, may be exceeded by workers involved. In such a case, the following guidance, extracted from National Council on Radiation Protection (NCRP) Report 39* and modified by more recent EPA guides, should be considered:

(1) Rescue personnel shall be volunteers or professional rescue personnel.

(2) Rescue personnel shall be broadly familiar with the consequences of exposure.

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* Basic Radiation Protection Criteria, National Council on Radiation Protection and Measurements, NCRP Report 39, January, 1971.

(3) Volunteers above the age of 45 are preferred and will not include women capable of reproduction.

(4) Planned dose to the whole body shall not exceed 75 rem. (No specific upper limit is given for thyroid exposure since in the extreme case complete thyroid loss might be an acceptable penalty for a life saved. However, this should not be necessary if respirators and/or thyroid protection for rescue personnel are available as the result of adequate planning.)

(5) Hands and forearms may receive additional doses of up to 200 rem (i.e., a total of 275 rem).

(6) Internal exposure shall be minimized by the use of the best available respiratory protection, and contamination should be controlled by the use of available protective clothing.

(7) Exposure under these conditions shall be limited to once in a lifetime.

(8) Men receiving exposures as indicated above should avoid procreation for a period up to a few months.

c. Extraordinary Emergency Operations: This applies under less than lifesaving circumstances where it is still desirable to enter a hazardous area.

All items listed under lifesaving actions above should be followed except values in (4) and (5). Change values in (4) and (5) to:

(4) Planned dose to the whole body shall not exceed 25 rem and to the thyroid, 125 rem.

(5) Hands and forearms may receive additional doses of up to 100 rem (i.e., a total of 125 rem).

D. Protective Actions

A wide variety of countermeasures are available that can be used to reduce or eliminate the effects of radiation and contamination resulting from a nuclear power plant accident. Countermeasures that could be used are described below.

Insofar as the general public is concerned, the two most basic protective actions which may be taken immediately to reduce doses caused by exposure to a gaseous plume are evacuation and sheltering. Table 1.4-3 indicates recommended protective actions associated with various projected dose levels.

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. Its effectiveness is considerably enhanced by detailed planning.

2. Sheltering from Radiation

   Shelter is any space which can shield people from exposure to outside radiation. It should also be sealed to avoid contamination; e.g., windows closed and air conditioners and heaters turned off.

3. Covering to Prevent Contamination

   Selected objects and material may be protected from contamination by covering them before the cloud arrives. Windows and doors of homes should be closed and sealed. To avoid the contamination of food obtained from livestock, all livestock feed should be put into the best covered space. Finally, machinery that cannot be decontaminated economically should be covered.

4. 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, it is expected to be part of any radioactive materials accidentally released during a nuclear power plant accident. Iodine blocking pills are made of potassium iodide. Taken prior to inhalation or ingestion of radioactive iodine, they will saturate the thyroid gland with non-radioactive iodine, thus reducing the body's assimilation of the radioactive isotope. This can greatly reduce the internal radiation dose to the thyroid, but will not protect against other radioisotope contamination or external radiation exposure.

5. Respirators

Special respirators prevent the inhalation of airborne radioactive materials. These are most applicable to emergency workers operating in the contaminated area. Respirators offer no protection from external exposure to gamma radiation.

6. Protective Clothing

Protective clothing is worn to prevent contamination of the skin. Its principal value is to reduce or eliminate the need for skin decontamination, but it offers no protection from gamma radiation exposure.

7. Interdiction

The Department of Health Services has the authority to prevent the sale, distribution or consumption of contaminated water and foodstuffs. Once confiscated, the food may be decontaminated by removal of the radioactive materials or by embargoing long enough to permit decay. Food that cannot be decontaminated will be destroyed.

8. 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. Meanwhile, food and water will be imported until local supplies are determined to be safe from contamination.

9. Decontamination

Decontamination is the removal of radioactive materials from surfaces. It is a corrective action to reduce the likelihood of ingestion and beta skin exposure and, to a lesser degree, whole body radiation exposure. Decontamination would be performed under professional supervision.

10. Special Chemical Treatment

Special chemical treatment is a form of decontamination applied to contaminated water, milk or other contaminated substances from which the radioactive chemicals can be removed. It is used to recover resources that would otherwise require disposal or subject the population to internal contamination if ingested.

11. Allowing for Radioactive Decay

Allowing time for radioactive decay by keeping the general population from radioactive items and areas provides an effective countermeasure. The normal use of items and areas can be resumed when radiation and/or contamination levels meet acceptable standards.

E. Emergency Action Level Classification

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

* NOTIFICATION OF UNUSUAL EVENT
* ALERT
* SITE AREA EMERGENCY
* GENERAL EMERGENCY

Certain actions are expected to be taken by the utility and/or offsite authorities in response to each of the four indicated Emergency Action Levels. 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 the federal guidance. These response actions, which are consistent between the County and PG&E, are shown in Table I.4-4 and described in detail below:

1. NOTIFICATION OF UNUSUAL EVENT

UNUSUAL EVENTS are abnormal events that have occurred or are occurring which indicate a potential degradation of the level of safety of the plant, or which could attract significant public interest. These events do not constitute emergency conditions in themselves, but could escalate to more severe conditions if appropriate action is not taken. This category includes:

a. Industrial accidents which necessitate the transfer of contaminated individual(s) to a hospital for treatment.

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* 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, Rev. 1, November, 1980.

b. Accidents which require the utilization of offsite emergency services such as police, fire fighting, rescue, or ambulance services.

Table 1.4-4
(Sheet 1 of 4)

NOTIFICATION OF UNUSUAL EVENT

General Actions of Plant Staff	General Actions of County or Local Authorities
• Promptly inform County, state, and offsite company support agencies of nature of the Unusual Event.	• Provide fire, emergency medical or security assistance if requested.
• Augment on-shift resources as required.	• Notify agencies and personnel indicated on alert list (County Sheriff, County Office of Emergency Services and all cities).
• Assess and respond	• Issue press release
• Close out with verbal summary to offsite support agencies; followed by written summary within 24 hours.	• Standby until verbal closeout.
OR	OR
• Escalate to a more severe class.	• Escalate to a more severe class.

ALERT

General Actions of Plant Staff	General Actions of County or Local Authorities
• Promptly inform County, state, and offsite company support agencies of the ALERT condition and its status. • Augment resources by activating onsite Technical Support Center, onsite Operational Support Center and Emergency Operations Facilities. • Assess and respond. • Dispatch onsite monitoring teams and associated communications as required. • Provide periodic meteorological assessments to offsite authorities. • Provide periodic plant status updates to offsite authorities at least every 15 minutes. • Close out by verbal summary to offsite authorities; followed by written summary within 24 hours. OR • Escalate to a more severe class.	• Provide fire, emergency, medical or security assistance if requested. • Augment resources by activating the County Emergency Operations Center. • Alert to standby status key emergency personnel including monitoring teams and associated communications. • Provide confirmatory offsite radiation monitoring and ingestion pathway dose projections if actual releases substantially exceed Technical Specification limits. • Activate Media Center and Phone Assistance Center; provide press briefings if necessary. • Close Montana de Oro State Park and Pismo Beach if ALERT declared due to radiological condition at plant. • Place EBS on standby. • Alert emergency response staff to standby, activate response centers. • Consider implementing Initial Precautionary Actions. • Maintain alert status until verbal closeout. OR • Escalate to a more severe class.

Table I.4-4
(Sheet 3 of 4)

SITE AREA EMERGENCY

General Actions of Plant Staff	General Actions of County or Local Authorities
• Promptly inform County, state, and offsite company support agencies of the SITE AREA EMERGENCY condition and its status.	• Provide any assistance requested.
• Augment resources by activating onsite. Technical Support Center, onsite Operations Support Center, and Offsite Recovery Center.	• Activate immediate public notification of emergency status and provide public periodic updates. (Consider use of EBS and siren system.)
• Assess and respond.	• Dispatch key emergency personnel including monitoring teams and associated communications.
• Dispatch onsite monitoring teams and associated communications.	• Close Montana De Oro State Park and Pismo State Beach
• Provide a dedicated individual (advisor to County Emergency Organization) for plant status up-dates to offsite authorities and periodic press briefings (joint with offsite authorities).	• Alert to standby status other emergency personnel (e.g., those needed for evacuation) and dispatch personnel to near-site duty stations.
• Make senior technical and management staff onsite available for consultation with NRC and state authorities on a periodic basis.	• Provide offsite monitoring results to PG&E and others and jointly assess (use UDAC).
• Provide meteorological and dose estimates to offsite authorities for actual releases via a dedicated individual or automated data transmission.	• Continuously assess information from PG&E and offsite monitoring with regard to changes to protective actions already initiated for public and mobilizing evacuation resources.
• Provide release and dose projections based on available plant condition information and foreseeable contingencies.	• Activate Media Center and Phone Assistance Center.
	• Provide joint press briefings with PG&E.

Table 1.4-4
(Sheet 4 of 4)

GENERAL EMERGENCY

General Actions of Plant Staff	General Actions of County or Local Authorities
• Promptly inform County, state, and offsite company support agencies of the GENERAL EMERGENCY condition and its status.	• Provide any assistance required.
• Augment resources by activating onsite Technical Support Center, onsite Operations Support Center, and Emergency Operations Center.	• Activate immediate public notification of emergency status and provide public periodic updates. (Use EBS and siren system.)
• Assess and respond.	• Evacuate the LPZ. Place other areas of the Basic Emergency Planning Zone on alert status and assess need to extend evacuation distance beyond the LPZ. (Close Montana De Oro State Park and Pismo State Beach).
• Evacuate nonessential people from the site.	• Augment resources by activating the County Emergency Operations Center.
• Dispatch onsite and offsite monitoring teams and associated communications.	• Dispatch key emergency personnel including monitoring teams and associated communications.
• Provide a dedicated individual (Advisor to County Emergency Organization) for plant status up-dates to offsite authorities and periodic press briefings (joint with offsite authorities).	• Dispatch other emergency personnel to duty stations within Basic Emergency Planning Zone and alert all others to standby status.
• Make senior technical and management staff onsite available for consultation with NRC and the State on a periodic basis.	• Provide offsite monitoring results to PG&E and others and jointly assess (use UDAC).
• Provide meteorological and dose estimates to offsite authorities for actual releases via a dedicated individual or automated data transmission.	• Continually assess information from PG&E and offsite monitoring with regard to changes to protective actions already initiated for the public and mobilizing evacuation resources.
• Provide release and dose projections based on available plant condition information and foreseeable contingencies.	• Assess need for action to prevent or mitigate ingestion pathway exposure.

Table I.4-4
(Sheet 4 of 4), (Cont.)

GENERAL EMERGENCY

General Actions of Plant Staff	General Actions of County or Local Authorities
• 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.	• Activate Media Center and Phone Assistance Center; provide press briefings jointly with PG&E. • Consider relocation to alternate EOC if actual dose accumulation in near-site EOC exceeds lower bound of EPA Protective Action Guides. • Maintain GENERAL EMERGENCY status until closeout or reduction of emergency class.

The Diablo Canyon plant operator has established aid agreements with hospitals and public and private emergency services groups within California.[10] San Luis Obispo County agencies may be called upon for assistance for this emergency classification.

The primary purpose of offsite notification is to appraise County officials of abnormal conditions at the facility which may create significant public interest. The frequency of these UNUSUAL EVENTS may be several times a year. Offsite notification also ensures unscheduled testing of the offsite communication links.

No release requiring environmental monitoring or implementation of offsite protective actions is expected, unless further degradation of facility safety should occur. Upon notification of an UNUSUAL EVENT at the Diablo Canyon Power Plant, required actions will include notification of the County and State Office of Emergency and dissemination of information designated in the plan.

2. ALERT

The ALERT classification is characterized by events which are occurring or have occurred that involve actual or potential substantial degradation of the level of plant safety. It constitutes the lowest level where offsite emergency response exceeding medical, fire, or law enforcement may be anticipated.

The purpose of the ALERT classification is to assure that plant and offsite emergency personnel are readily available to respond if the situation becomes more serious, and to perform confirmatory radiation monitoring. Secondary purposes are to provide offsite authorities with current status information and to provide unscheduled tests of County Emergency Operations Center (EOC) activation.

Limited releases of up to 10 times technical specification instantaneous limits may occur. This would result in a dose of 1 mrem at the site boundary (approximately 1/2 mile from the plant) under average meteorological conditions for a 2 hour release. Under adverse meteorological conditions 60 mrems to the whole body may occur. Such releases will require confirmatory environmental monitoring,

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[10] See Diablo Canyon Power Plant Emergency Plan.

but will not require the implementation of protective actions for the public.

However, due to the potentially long time required to close these facilities, Montana De Oro State Park and Pismo State Beach are to be closed if an ALERT is declared for a condition which may involve releases of radioactive material.

Upon notification of an ALERT at the Diablo Canyon Power Plant, required actions will include: activation of the San Luis Obispo County 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.

3. SITE AREA EMERGENCY

A SITE AREA EMERGENCY is characterized by events involving actual or likely major failures of plant functions needed for the protection of the public. Although emergency actions involving members of the public may not be necessary, offsite emergency response organizations should be mobilized and ready to implement protective measures.

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.

Most events within the SITE AREA EMERGENCY classification constitute actual or probable releases of radioactive material to the environment. In general, offsite doses would be less than 1 rem whole body at the site area boundary (0.5 mile radius), should they occur. Precautionary protective actions, particularly sheltering, may be advised within the SITE AREA EMERGENCY classification.

Upon notification of a SITE AREA EMERGENCY at the Diablo Canyon Power Plant, required actions may include: activation of the San Luis Obispo County EOC, mobilization of emergency response personnel, public warning, preparation for implementing protective actions, continued monitoring, and continued assessment.

4. GENERAL EMERGENCY

This classification is characterized by events that are occurring or have occurred which involve actual or imminent substantial core degradation or melting, with potential for loss of containment integrity and subsequent release of radioactivity to the environment.

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 the station operator, to initiate any additional measures, and to disseminate information.

All events within this classification constitute actual or imminent releases of radioactive materials to the environment. Offsite doses would be 1.0 rem or greater to the whole body and 5.0 rem or greater to the child thyroid. Protective actions, possible evacuations will be necessary.

Upon notification of general emergency at the Diablo Canyon Power Plant, required actions will include activation of the San Luis Obispo County EOC, mobilization of emergency response personnel, public warning, implementation of protective actions, continued monitoring, and continued assessment. The most likely immediate protective action to be taken would be an evacuation of the six-mile Low Population Zone (LPZ) surrounding the plant.

F. Time Factors Associated with Release

The range of 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 I.4-5 below summarizes the guidance on time of the release.

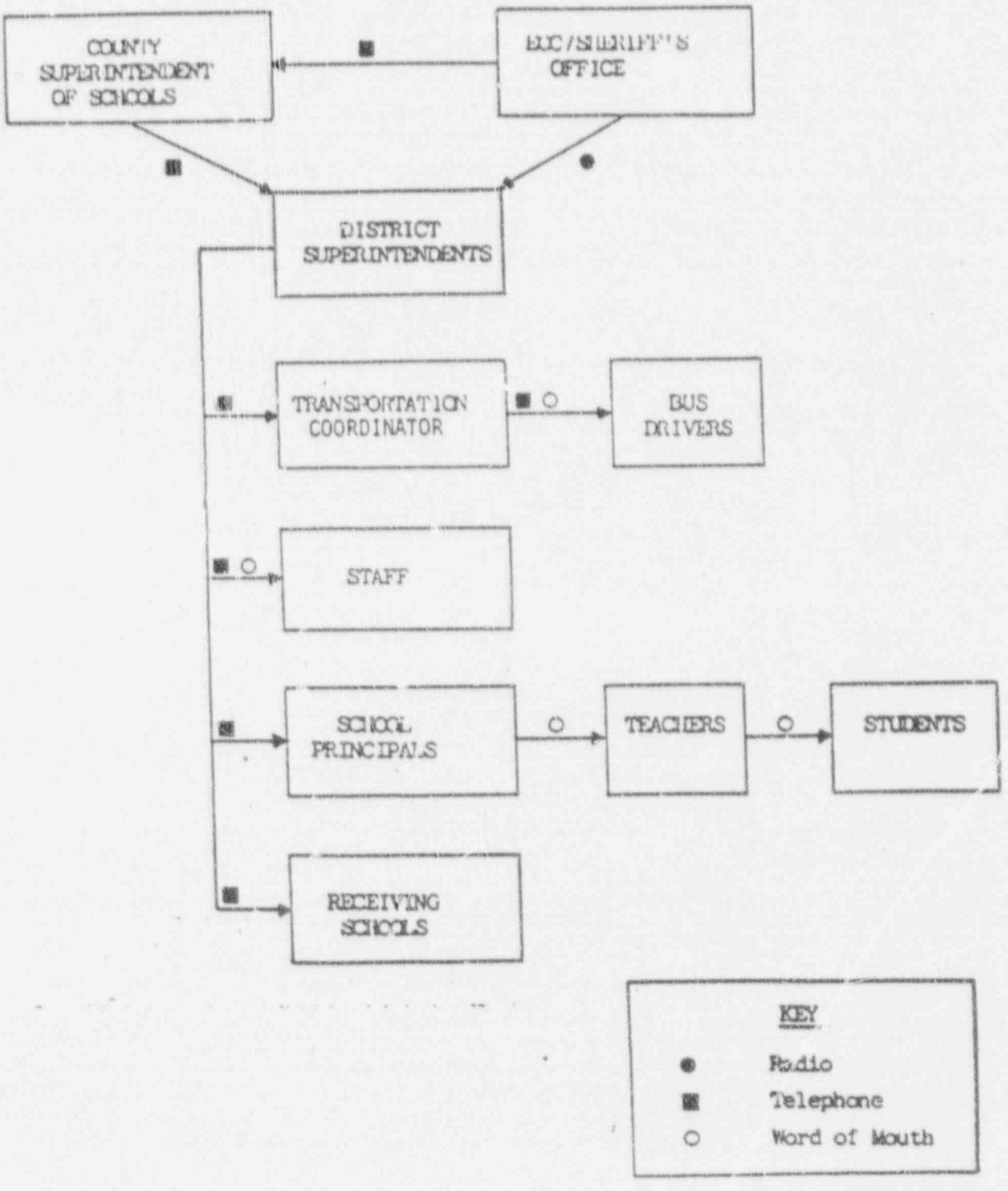
Table I.4-5

Guidance on Initiation and Duration of Release

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

Attachment 1

ALERTING DIAGRAM



Attachment 2

MESSAGE TEXT

Emergency Action Level Notification

"This is (name), (job title), of the District Superintendent's office. A(n) (Alert/Site Area Emergency/General Emergency) has been declared at the Diablo Canyon Nuclear Power Plant. You should complete the tasks as outlined for you in your emergency procedures. We repeat, a(n) Alert/Site Area Emergency/General Emergency has been declared at Diablo Canyon. Please repeat back to me." (Notifying person confirms that person notified has understood the message and knows which Emergency Action Level has been declared.) Terminate message and record time of contact.

EVACUATING/RECEIVING SCHOOL PLAN - ATTACHMENT 3

(Listed in Priority Order of Transporting Students)

EVACUATING SCHOOL	ZONE	RECEIVING SCHOOLS: ORCUTT ELEMENTARY	SANTA MARIA ELEMENTARY	SANTA MARIA JOINT UNION HIGH SCHOOL
INSIDE 20 MILE RADIUS:			↑	
Shell Beach Elementary	6		All to	
Judkins Intermediate	6		Allan Hancock Community College	
Grover City Elementary	10			→
Grover Heights	10	←		
Oceano Elementary	10			
North Oceano Elementary	10			
Ocean View Elementary	10			
Harloe Elementary	10			
Lopez High School	10			
Branch Elementary	12			
Paulding Intermediate	10			
Arroyo Grande High School	10		↓	
INSIDE 30 MILE RADIUS				
Dana Elementary	13			
Nipomo Elementary	13			
Mesa Elementary	12			

ATTACHMENT IV

NOTIFICATION LIST

LUCIA MAR UNIFIED SCHOOL DISTRICT

NOTIFICATION LIST
Inidivduals Able to Commit Resources

Titles, Names Address, Phone — Comments

Board Pesident, Darlena Alexander
P. O. Box 338, Grover City, CA 93433
Home Phone [redacted]

Superintendent, Joseph K. Boeckx
952 Margarita Ave., Grover City, CA 93433
Home Phone [redacted] Office Phone [redacted]

Asst. Superintendent, Scott R. Lathrop
1619 La Vineda, San Luis Obispo, CA 93401
Home Phone [redacted] Office Phone [redacted]

Director-Maintenance, Operations,
Transportation & Facilities, Al Sauvadon
190 Valley View, Pismo Beach, CA 93449
Home Phone [redacted] Office Phone [redacted]

Asst. Superintendent, Nancy DePue
1058 Old Oak Park Road, Arroyo Grande, CA 93420
Home Phone [redacted] Office Phone [redacted]

Asst. Superintendent, Barry Groves
242 Rodeo Drive, Arroyo Grande, CA 93420
Home Phone [redacted] Office Phone [redacted]

Director-Pupil Personnel &
Special Services, Thomas Talbert
1015 Meadow Way, Arroyo Grande, CA 93420
Home Phone [redacted] Office Phone [redacted]

LUCIA MAR UNIFIED SCHOOL DISTRICT

NOTIFICATION LIST
Management

Title, Name, Address, Phone	Comments
District Superintendent, Joseph K. Boeckx 952 Margarita Ave., Grover City, CA 93433 Home Phone [redacted] /Office Phone [redacted]	
Asst. Superintendent, Scott R. Lathrop 1619 La Vineda, San Luis Obispo, CA 93401 Home Phone [redacted] /Office Phone [redacted]	
Asst. Superintendent, Nancy DePue 1058 Old Oak Park Road, Arroyo Grande, CA 93420 Home Phone [redacted] /Office Phone [redacted]	
Asst. Superintendent, Barry Groves 242 Rodeo Drive, Arroyo Grande, CA 93420 Home Phone [redacted] /Office Phone [redacted]	
Director-Pupil Personnel & Special Services, Thomas Talbert 1015 Meadow Way, Arroyo Grande, CA 93420 Home Phone [redacted] /Office Phone [redacted]	
Director-Maintenance, Operations, Transportation & Facilities, Al Sauvadon 190 Valley View, Pismo Beach, CA 93449 Home Phone [redacted] /Office Phone [redacted]	
Director-Food Services, Priscilla Alquist 246 Margo Lane, Pismo Beach, CA 93449 Home Phone [redacted] /Office Phone [redacted]	
Principal, Arroyo Grande High School, Carl Shutts 1173 Wisteria, San Luis Obispo, CA 93401 Home Phone [redacted] /Office Phone [redacted]	
Principal, Branch Elementary School, Joyce Hunter 4411 See Canyon Road, San Luis Obispo, CA 93405 Home Phone [redacted] /Office Phone [redacted]	
Principal, Dana Elementary School, Juan Olivarria 931 Margarita Ave., Grover City, CA 93433 Home Phone [redacted] /Office Phone [redacted]	
Principal, Grover City Elementary School, Raeanna Thomasson 1964 Johnson Ave., San Luis Obispo, CA 93401 Home Phone [redacted] /Office Phone [redacted]	

LUCIA MAR UNIFIED SCHOOL DISTRICT

NOTIFICATION LIST
Management

Title, Name, Address, Phone — Comment

Principal, Grover Heights, Martha Murphy
836 Via Berros, Arroyo Grande, CA 93420
Home Phone [redacted] Office Phone [redacted]

Principal, Harloe Elementary, Pam Ables
1132 Vard Loomis Lane, Arroyo Grande, CA 93420
Home Phone [redacted] Office Phone [redacted]

Principal, Judkins Middle School, Bryant Smith
4525 Wavertree Street, San Luis Obispo, CA 93401
Home Phone [redacted] Office Phone [redacted]

Principal, Lopez High School, Harvey White
215 Hacienda Avenue, San Luis Obispo, CA 93401
Home Phone [redacted] Office Phone [redacted]

Principal, Mesa Elementary School, Loleta Hamlett
418 W. Richard Drive, Santa Maria, CA 93454
Home Phone [redacted] Office Phone [redacted]

Principal, Nipomo Elementary School, Kathy Hall
809 East Alvin, Santa Maria, CA 93454
Home Phone [redacted] Office Phone [redacted]

Principal, North Oceano Elementary School, Tim Baird
625 Cerro Vista Circle, Arroyo Grande, CA 93420
Home Phone [redacted] Office Phone [redacted]

Principal, Ocean View Elementary School, Sandy Lebens
114 La Colima, Pismo Beach, CA 93449
Home Phone [redacted] Office Phone [redacted]

Principal, Oceano Elementary School, Phil Gallegos
1961 Paso Robles, Apt. 3, Oceano, CA 93445
Home Phone [redacted] Office Phone [redacted]

Principal, Paulding Middle School, James Miller
384 Corralitos Canyon, Arroyo Grande, CA 93420
Home Phone [redacted] Office Phone [redacted]

Principal, Shell Beach Elementary School, Bob Mistele
1376 Ironbark, San Luis Obispo, CA 93401
Home Phone [redacted] Office Phone [redacted]

Staff Specialist, Dick Rayburn
357 Sunrise Drive, Arroyo Grande, CA 93420
Home Phone [redacted] Office Phone [redacted]

LUCIA MAR UNIFIED SCHOOL DISTRICT

NOTIFICATION LIST
Telephone Alert

Title, Name, Address Phone — Comments

Administrative Asst., Superintendent's Office, Louise Elliston
624 Eman Court, Arroyo Grande, CA 93420
Home Phone [redacted] Office Phone [redacted]

Administrative Secretary, Business Office, Jeanne Breunig
819 Niles Court, Santa Maria, CA 93454
Home Phone [redacted] Office Phone [redacted]

Administrative Secretary, Instruction Office, Joan Henry
1174 Ash Street, Apt. C., Arroyo Grande, CA 93420
Home Phone [redacted] Office Phone [redacted]

Secretary/Dispatcher, Transportation, Denise Thurman
359 Alder Street, Arroyo Grande, CA 93420
Home Phone [redacted] Office Phone [redacted]

Staff Specialist, Dick Rayburn
357 Sunrise Drive, Arroyo Grande, CA 93420
Home Phone [redacted] Office Phone [redacted]

Administrative Secretary, Personnel Office, Linda Ellis
929 Bluebell Way, San Luis Obispo, CA 93401
Home Phone [redacted] Office Phone [redacted]

LUCIA MAR UNIFIED SCHOOL DISTRICT

NOTIFICATION LIST
Maintenance/Operations/Transportation/Facilities

Titles, Name, Address, Phone — Comments

Director-Maintenance, Operations,
Transportation & Facilities, Al Sauvadon
190 Valley View, Pismo Beach, CA 93449
Home Phone [redacted] Office Phone [redacted]

Secretary/Dispatcher-Transportation,
Denise Thurman
359 Alder Street, Arroyo Grande, CA 93420
Home Phone [redacted] Office Phone [redacted]

Lead Mechanic-Transportation, James Elam
676 North 12th Street, #24, Grover City, CA 93433
Home Phone [redacted] Office Phone [redacted]

Secretary-Maintenance/Grounds, Lillian Nickson
1148 St. John's Circle, Grover City, CA 93433
Home Phone [redacted] Office Phone [redacted]

Supervisor-Maintenance/Grounds, William Wood
861 Turquoise Drive, Arroyo Grande, CA 93420
Home Phone [redacted] Office Phone [redacted]

Supervisor-Operations, Frank Lott
400 Stimson, Pismo Beach, CA 93449
Home Phone [redacted] Office Phone [redacted]

Lead Driver/Trainer, Bertha Boyce
887 Pearl Drive, Arroyo Grande, CA 93420
Home Phone [redacted] Office Phone [redacted]

LUCIA MAR UNIFIED SCHOOL DISTRICT

NOTIFICATION LIST
Food Service

Title, Name, Address, Phone	Comments
Director, Food Service, Priscilla Alquist 246 Margo Lane, Pismo Beach, CA 93449 Home Phone [redacted] Office Phone [redacted]	
Secretary, Food Service, Jeanette Blackmore 587 Corralitos Canyon Rd., Arroyo Grande, CA 93420 Home Phone [redacted] Office Phone [redacted]	

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

July 22, 1992

50-275/323 DIABLO CANYON NUCLEAR POWER PLANT

MEMORANDUM FOR: Chief, Document Control Branch, IRM

FROM: Director, Division of Freedom of Information and Publications Services, ADM

SUBJECT: REVIEW OF UTILITY EMERGENCY PLAN DOCUMENTATION

The Division of Freedom of Information and Publications Services has reviewed the attached document and has determined that it may now be made publicly available.

Donnie H. Grimsley, Director
Division of Freedom of Information
and Publications Services
Office of Administration