



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV

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August 22, 2000

Gregory M. Rueger, Senior Vice
President, Generation and Chief Nuclear Officer
Pacific Gas and Electric Company
Diablo Canyon Power Plant
P.O. Box 3
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SUBJECT: FEDERAL EMERGENCY MANAGEMENT AGENCY'S REPORT

Dear Mr. Rueger:

Enclosed is a copy of the Federal Emergency Management Agency's (FEMA) evaluation report of the May 10, 2000, Offsite Biennial Exercise for the Diablo Canyon Nuclear Power Plant, Units 1 and 2. The report indicates that FEMA observed no deficiencies during the exercise.

Please note that the Areas Requiring Corrective Action (ARCAs) No. 19-00-7-A-2, "Incorrect Dosimeter Correction Factor," and No. 19-00-12-A-4, "Lack of Media Information on Radiation Monitoring Data," discuss corrective actions by PG&E. No response to the NRC is required.

If you have any further questions, please contact Mr. William Maier at (817) 860-8126.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Sincerely,

Gail M. Good, Chief
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Docket Nos.
50-275
50-323

License Nos.
DPR-80
DPR-82

Enclosure: As stated

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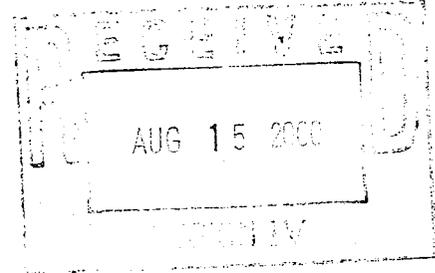


Federal Emergency Management Agency

Region IX
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AUG _ 9 2000

Mr. Ellis Merschoff
Regional Administrator
U.S. Nuclear Regulatory Commission Region IV
611 Ryan Plaza, Suite 400
Arlington, Texas 76011-8064



Dear Mr. Merschoff:

We are enclosing the Final Evaluation Report for the May 10, 2000, Off-site Biennial Exercise for the Diablo Canyon Power Plant (DCPP). The report addresses the evaluation of the plans and preparedness for the public in the Emergency Planning Zone. We identified six issues during this exercise. We will provide a copy of the report to the State of California and monitor the correction of the identified issues.

The level of preparedness and the adequacy of the off-site radiological emergency response plans for the State of California and the jurisdictions site-specific to DCPP, together with the ability to implement these plans, were demonstrated in the referenced exercise. Based on the results of this exercise, we have determined that there is reasonable assurance that appropriate measures can be taken off-site to protect the health and safety of the public in the event of a radiological emergency at DCPP. Therefore, the Code of Federal Regulations, Title 44, Part 350 interim approval of the off-site radiological emergency response plans and preparedness for the State of California site-specific to DCPP will remain in effect.

Please contact me directly at (415) 923-7100, or your staff may contact Mr. Tom Ridgeway, Regional Assistance Committee Chair, at (415) 923-7277, if you have any questions or need additional information

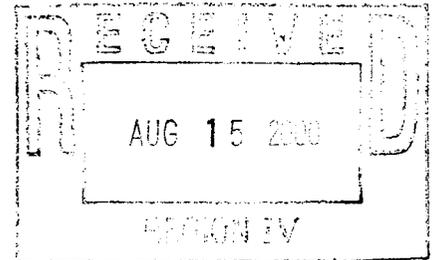
Sincerely,

Martha Whetstone
Regional Director

Enclosure

cc: Ms. Vanessa Quinn, FEMA HQ
Mr. Charles L. Miller, NRC HQ





Final Exercise Report

DIABLO CANYON POWER PLANT

Licensee: Pacific Gas and Electric Company

Exercise Date: May 10, 2000

Report Date: July 26, 2000

**FEDERAL EMERGENCY MANAGEMENT AGENCY
REGION IX
Building 105, P.O. Box 29998
Presidio of San Francisco, California 94129**

I. EXECUTIVE SUMMARY

On May 10, 2000, the Federal Emergency Management Agency (FEMA), Region IX evaluated a plume pathway exercise for the emergency planning zone (EPZ) around the Diablo Canyon Power Plant. The purpose of the exercise was to assess the level of State and local preparedness in responding to a radiological emergency. This exercise was held in accordance with FEMA's policies and guidance concerning the exercise of State and local radiological emergency response plans (RERP) and procedures.

The most recent plume pathway exercise FEMA evaluated at this site was on November 4, 1998. The qualifying emergency preparedness exercise was conducted on August 19, 1981.

FEMA wishes to acknowledge the efforts of the many individuals who participated in this exercise.

Protecting the public health and safety is the full-time job of some of the exercise participants and an additional assigned responsibility for others. Still, others have willingly sought this responsibility by volunteering to provide vital emergency services to their communities. Cooperation and teamwork of all the participants were evident during this exercise.

The local organizations, except where noted in this report, demonstrated knowledge of their emergency response plans and procedures and adequately implemented them. There were six Areas Requiring Corrective Action (ARCA) identified as a result of this exercise; nine ARCAs from the November 4, 1998 exercise were corrected, and no ARCAs remain uncorrected from the November 4, 1998 exercise.

II. REPORT CREDITS/ TABLE OF CONTENTS

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III. INTRODUCTION

On December 7, 1979, the President directed FEMA to assume the lead responsibility for all off-site nuclear planning and response. FEMA's activities are conducted pursuant to 44 Code of Federal Regulations (CFR) Parts 350, 351 and 352. These regulations are a key element in the Radiological Emergency Preparedness (REP) Program that was established following the Three Mile Island Nuclear Station accident in March 1979.

FEMA Rule 44 CFR 350 establishes the policies and procedures for FEMA's initial and continued approval of State and local governments' radiological emergency planning and preparedness for commercial nuclear power plants. This approval is contingent, in part, on State and local government participation in joint exercises with licensees.

FEMA's responsibilities in radiological emergency planning for fixed nuclear facilities include the following:

- Taking the lead in off-site emergency planning and in the review and evaluation of RERPs and procedures developed by State and local governments;
- Determining whether such plans and procedures can be implemented on the basis of observation and evaluation of exercises of the plans and procedures conducted by State and local governments;
- Responding to requests by the U.S. Nuclear Regulatory Commission (NRC) pursuant to the Memorandum of Understanding between the NRC and FEMA dated June 17, 1993 (Federal Register, Vol. 58, No. 176, September 14, 1993); and
- Coordinating the activities of Federal agencies with responsibilities in the radiological emergency planning process:
 - U.S. Department of Commerce,
 - U.S. Nuclear Regulatory Commission,
 - U.S. Environmental Protection Agency,
 - U.S. Department of Energy,
 - U.S. Department of Health and Human Services,
 - U.S. Department of Transportation,
 - U.S. Department of Agriculture,
 - U.S. Department of the Interior, and
 - U.S. Food and Drug Administration.

Representatives of these agencies serve on the FEMA Region RIX Regional Assistance Committee (RAC) which is chaired by FEMA.

Formal submission of the RERPs for the Diablo Canyon Power Plant to FEMA Region IX by the State of California and the involved local jurisdictions occurred on May 31, 1988.

State and local Radiological Emergency Preparedness plans are required, in NUREG-0654/FEMA REP 1, Rev. 1 (November 1980), to designate primary and back-up medical facilities capable of providing appropriate care to injured/contaminated individuals originating from the off-site effects of an incident at a nuclear power plant. One or more of these facilities are usually exercised as part of the biennial State/Local REP exercise. Others may be exercised during the off-year period. At least one evaluated medical drill must be held each year at each nuclear facility, according to NUREG-0654 Planning Standard N.2.c.

FEMA Region IX evaluated a biennial REP exercise on May 10, 2000 to assess the capabilities of local emergency preparedness organizations in implementing their RERPs and procedures to protect the public health and safety during a radiological emergency involving the Diablo Canyon Power Plant. The purpose of this report is to present the results and findings on the performance of the off-site response organizations (ORO) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the Federal evaluator team, with final determinations made by the FEMA Region IX RAC Chairperson, and approved by the Regional Director.

The criteria utilized in the FEMA evaluation process are contained in :

- NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980;
- FEMA-REP-14, "Radiological Emergency Preparedness Exercise Manual," September 1991; and
- FEMA-REP-15, "Radiological Emergency Preparedness Exercise Evaluation Methodology," September 1991.
- FEMA Guidance Memoranda MS-1, "Medical Services, " November, 1986.

Section III of this report, entitled "Exercise Overview," presents basic information and data relevant to the exercise. This section of the report contains a description of the plume pathway EPZ and a listing of all participating jurisdictions and functional entities which were evaluated.

Section IV of this report, entitled "Exercise Evaluation and Results," presents detailed information on the demonstration of applicable exercise objectives at each jurisdiction or functional entity evaluated in a jurisdiction-based, issues-only format. This section also contains: (1) descriptions of all ARCAs assessed during this exercise, recommended corrective actions, and (2) descriptions of unresolved ARCAs assessed during previous drills.

IV. EXERCISE OVERVIEW

Contained in this section are data and basic information relevant to the May 10, 2000 biennial exercise to test a portion of the off-site emergency response capabilities for the area surrounding the Diablo Canyon Power Plant. This section of the report includes a description of the plume pathway EPZ, and a listing of all participating jurisdictions and functional entities which were evaluated.

Federal guidance identifies an approximate ten-mile area where FEMA has primary oversight responsibilities for off-site plans and exercise performance. Protective Action Zones (PAZs) 1 through 5 form the basis of the basic area where the Federal government has primary oversight responsibilities. As such, evaluation of exercise objectives is focused and limited to decisions and/or response activities that take place within PAZs 1 through 5. The area of the Diablo Canyon Nuclear Power Plant Emergency Planning Zone that comprises PAZs 6 through 12 is an area where the State of California has primary oversight responsibility. The State of California is the entity that will determine whether any corrective actions are required for actions or decisions that affect PAZs 6 through 12. Both areas together comprise the Plume Emergency Planning Zone.

A. Plume Emergency Planning Zone Description

The State of California has designated a Basic Emergency Planning Zone (BEPZ) which extends out from a 10-mile circle around the plant to include surrounding cities. The BEPZ includes the following areas:

Towns and cities: Arroyo Grande; Avila Beach; Cayucos; Grover Beach; Morro Bay; Oceano; Pismo Beach; and San Luis Obispo.

Unincorporated areas of San Luis Obispo County: Baywood Park; Cienega Valley; Clark Valley; Indian Knob; Los Osos; Los Osos Valley; northern Nipomo Mesa; Port San Luis; Perfumo Canyon; Price Canyon; San Luis Bay Estates; See Canyon; Squire Canyon; and Sunset Palisades.

Institutions: California Men's Colony; California Polytechnic State University; Camp San Luis Obispo; and Cuesta College.

Parks and Recreational Areas: Cayucos State Beach; Los Osos Oaks State Reserve; Montaña de Oro State Park; Morro Bay State Park; Morro Strand State Beach; Oceano Dunes State Vehicle Recreational Area; Pismo State Beach; Pirate's Cove; and Whale Rock Reservoir Recreational Area.

B. Exercise Participants

The following agencies, organizations, and units of government participated in the Diablo Canyon Power Plant biennial exercise on May 10, 2000.

STATE OF CALIFORNIA

California Highway Patrol
Department of Forestry/County Fire Headquarters ECC
Department of Health Services
Department of Parks and Recreation
Department of Transportation
Office of Emergency Services

RISK JURISDICTION

City of Grover Beach
County of San Luis Obispo
 Administrative Office
 Agricultural Commissioner's Office
 Air Pollution Control District
 County Counsel
 Department of General Services
 Department of Social Services
 Engineering Department
 Fire Department
 Health Agency
 Environmental Health Division
 Information Services Division
 Office of Education
 Office of Emergency Services
 Sheriff's Office
Emergency Medical Services Agency
San Luis Coastal Unified School District
Cayucos Unified School District
San Luis Obispo Rapid Transit
South Bay Fire Department

SUPPORT JURISDICTION

Santa Barbara County

PRIVATE/VOLUNTEER ORGANIZATIONS

Amateur Radio Emergency Services/Radio Amateur Civil Emergency Services
American Red Cross
Radio Station KKJG

C. Exercise Timeline

Table 1, on the following pages, presents the time at which key events and activities occurred during the Diablo Canyon Power Plant Off-site Biennial Exercise on May 10, 2000. Also included are notification times that were made to the participating jurisdictions/functional entities.

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received or Action Was Taken										
		SLOCEOC	UDAC	COE	JMC	PAC	CHADOC	EDOC	FMTs	AVFS	Grover City EOC	
1 st Protective Action Decision: evacuate PAZs 1&2		1045										
1 st Siren Activation: PAZs 1&2		1057										
1 st EAS Message		1100										
2 nd Protective Action Decision: evacuate PAZs 1&2; sound sirens in all PAZs		1110										
2 nd Siren Activation: all PAZs		1122										
2 nd EAS Message		1125										
3 rd Protective Action Decision: evacuate PAZ 3		1209										
3 rd Siren Activation: all PAZs		1221										
3 rd EAS Message		1224										
4 th Protective Action Decision: evacuate PAZs 6&7		1321										
4 th Siren Activation: all PAZs		1333										
4 th EAS Message		1336										
KI Administration Decision: Emergency Workers in PAZs #1,2,3		1301										1321

LEGEND:

S - Support Jurisdiction

D - Decision Making Jurisdiction

A - Activating Jurisdiction

N/A - Not Applicable

V. EXERCISE EVALUATION AND RESULTS

Contained in this section are the results and findings of the evaluation of all jurisdictions and functional entities which participated in the May 10, 2000, Biennial Exercise to test the off-site emergency response capabilities of local and State governments in the EPZ surrounding the Diablo Canyon Power Plant.

Each jurisdiction and functional entity was evaluated on the basis of its demonstration of criteria delineated in exercise objectives contained in FEMA-REP-14, REP Exercise Manual, September 1991. Detailed information on the exercise objectives and the extent-of-play agreement used in this exercise are found in Appendix 4 of this report.

A. Summary Results of Exercise Evaluation - Table 2

The matrix presented in Table 2, on the following page, presents the status of all exercise objectives from FEMA-REP-14 which were scheduled for demonstration during this exercise by all participating jurisdictions and functional entities. Exercise objectives are listed by number and the demonstration status of those objectives is indicated by the use of the following letters:

- M - Met (No Deficiency or ARCAs assessed and no unresolved ARCAs from prior exercises)
- D - Deficiency assessed
- A - ARCA(s) assessed or unresolved ARCA(s) from prior exercise(s)
- N - Not Demonstrated (Reason explained in Subsection B)

Table 2. Summary Results of Evaluation

Date and Site: May 10, 2000-Diablo Canyon Power Plant

JURISDICTION/FUNCTIONAL ENTITY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Unified Dose Assessment Center	M	M	M	M			A								M																		
San Luis Obispo County Emergency Operations Center	M	M	A	M	M				M	M	M	M		M	M	M	M																
EAS Station										M	M																						
Joint Media Center											M	A																					
Phone Assistance Center	M	M	M	M										M																			
Engineering Department Operations Center	M	M	M	M	M										M																		
County Office of Education	M	M	M	M													M																
County Health Agency Department Operations Center	M	M	M	M													M																
Avila Valley Fire Station	M	M	M	M	M						M				M	M																	
Field Monitoring Teams	M	M	M	M	M	A		M							M																		
San Luis Coastal Unified School District					M										M		A																
California Highway Patrol					M																												
California Department of Transportation					M																												
California Department of Parks and Recreation					M																												
County Sheriff's Department					M																												
County Engineering Department					M																												
South Bay Fire Department					M																												

LEGEND:

M = Met (No Deficiency or ARCAs assessed) A = ARCA(s) assessed and/or unresolved prior ARCAs and no unresolved prior ARCAs
 N = Not Demonstrated D = Deficiency(ies) assessed Blank = Not scheduled for demonstration

B. Status of Jurisdictions Evaluated

This subsection provides information on the evaluation of each participating jurisdiction and functional entity, in a jurisdiction based, issues only format. Presented below is a definition of the terms used in this subsection relative to objective demonstration status.

- **Met** - Listing of the demonstrated exercise objectives under which no Deficiencies or ARCAs were assessed during this exercise and under which no ARCAs assessed during prior exercises remain unresolved.
- **Deficiency** - Listing of the demonstrated exercise objectives under which one or more Deficiencies was assessed during this exercise. Included is a description of each Deficiency and recommended corrective actions.
- **Area Requiring Corrective Actions** - Listing of the demonstrated exercise objectives under which one or more ARCAs were assessed during the current exercise or ARCAs assessed during prior exercises remain unresolved. Included is a description of the ARCAs assessed during this exercise and the recommended corrective action to be demonstrated before or during the next biennial exercise.
- **Not Demonstrated** - Listing of the exercise objectives which were not demonstrated as scheduled during this exercise and the reason they were not demonstrated.
- **Prior ARCAs - Resolved** - Descriptions of ARCAs assessed during previous exercises which were resolved in this exercise and the corrective actions demonstrated.
- **Prior ARCAs - Unresolved** - Descriptions of ARCAs assessed during prior exercises that were not resolved in this exercise. Included is the reason the ARCA remains unresolved and recommended corrective actions to be demonstrated before or during the next biennial exercise.

The following are definitions of the two types of exercise issues that are discussed in this report.

- A **Deficiency** is defined in FEMA-REP-14 as "...an observed or identified inadequacy of organizational performance in an exercise that could cause a finding that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety of the public living in the vicinity of a nuclear power plant."
- An **ARCA** is defined in FEMA-REP-14 as "...an observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety."

FEMA has developed a standardized system for numbering exercise issues (Deficiencies and ARCAs). This system is used to achieve consistency in numbering exercise issues among FEMA Regions and site-specific exercise reports within each Region. It is also used to expedite tracking of exercise issues on a nationwide basis.

The identifying number for Deficiencies and ARCAs includes the following elements, with each element separated by a hyphen (-).

- **Plant Site Identifier** - A two-digit number corresponding to the Utility Billable Plant Site Codes.
- **Exercise Year** - The last two digits of the year the exercise was conducted.
- **Objective Number** - A two-digit number corresponding to the objective numbers in FEMA-REP-14.
- **Issue Classification Identifier** - (D = Deficiency, A = ARCA). Only Deficiencies and ARCAs are included in exercise reports.
- **Exercise Issue Identification Number** - A separate two (or three) digit indexing number assigned to each issue identified in the exercise.

TABLE 3
EXERCISE ISSUES
DCPP May 10, 2000 Exercise

LOCATION	NEW ISSUE(S)	PREVIOUS ISSUE(S) RESOLVED	PREVIOUS ISSUE(S) UNRESOLVED
Unified Dose Assessment Center	19-00-7-A-1 19-00-7-A-2	19-98-3-A-1 19-96-14-A-12	NONE
San Luis Obispo County Emergency Operations Center	19-00-3-A-3	19-96-11-A-18 19-98-17-A-2	NONE
Joint Media Center	19-00-12-A-4	19-98-12-A-3	NONE
Phone Assistance Center	NONE	NONE	NONE
Engineering Department Operations Center	NONE	NONE	NONE
County Office of Education	NONE	NONE	NONE
County Health Agency Operations Center	NONE	NONE	NONE
Avila Valley Fire Station # 13	NONE	NONE	NONE
Field Monitoring Teams	19-00-6-A-5	19-98-1-A-4 19-96-5-A-22	NONE
San Luis Coastal Unified School District	19-00-16-A-6	NONE	NONE
California Highway Patrol	NONE	NONE	NONE
California Department of Transportation	NONE	19-98-5-A-5	NONE
California Department of Parks and Recreation	NONE	NONE	NONE
County Sheriff's Department	NONE	19-98-5-A-6	NONE
South Bay Fire Department	NONE	NONE	NONE
County Engineering Department-South Yard	NONE	NONE	NONE

o UNIFIED DOSE ASSESSMENT CENTER

There were six objectives identified for demonstration, observation, and evaluation at the Unified Dose Assessment Center (Objectives 1, 2, 3, 4, 7 and 14). Five objectives were met, and two ARCAs were identified for one objective. Two ARCAs from previous exercises were corrected. There are no uncorrected ARCAs from previous exercises.

The capability to alert and fully mobilize staff for both emergency facilities and field operations was demonstrated despite the fact that neither the pagers at the County nor the pagers at the State level were operating. The capability to activate and staff emergency facilities for emergency operations was demonstrated. The Alert Emergency Classification Level (ECL) was declared at 0750, which initiated the notification of Pacific, Gas and Electric (PG&E) staff, San Luis Obispo County staff, State Office of Emergency Services (OES), and the Department of Health Services (DHS) staff to activate the Unified Dose Assessment Center (UDAC). Notification of County staff by telephone was completed by about 0830.

Present in the UDAC were two staff from the County Environmental Health, three staff from the County Agricultural Department, one staff from the County Air Pollution Control District (meteorology), a PG&E Near Site Meteorologist, Health Physicist and Reception and Care Liaison, three UDAC Clerical Staff, County Liaison and Assistant, the Radiological Monitoring Director (RMD), the Radiological Manager, the UDAC Coordinator and Alternate UDAC Coordinator, and Emergency Supervising Engineer. All PG&E and County staff required to support the UDAC were in position by approximately 0910.

In accordance with the extent-of-play agreement, the California State staff assigned to respond to the UDAC were pre-positioned at a near-by location and reported to the UDAC when notified by telephone. California State agencies represented in the UDAC were OES and DHS.

The adequacy of facilities, equipment, displays, and other materials to support emergency operations was demonstrated. The UDAC had sufficient space and furnishings to accommodate the number of staff present during the exercise. The facility has backup power. Each UDAC position had a telephone, and there were several computers which provided access to the Emergency Response Network Information (ERNI) that provided data base information, Protective Action Recommendations (PAR) and Protective Action Decisions (PAD), as well as dose projection support. The Emergency Assessment and Response System (EARS) computer system, which normally provides plant monitoring and status information, was not operating during this exercise. An alternative computer system, Quick Dose, was used to estimate exposure dose. The Meteorological Information and Dose Assessment System (MIDAS) is a computer system that also supports plant monitoring and status information. Plume plots were generated using the computer program, however, pre-determined stationary points were used as locations for sampling by the three Field Monitoring Teams (FMT). The plume plots provided instant information on the location and width of the projected plumes and were useful to other staff within Emergency Operations Facility (EOF) and UDAC. The UDAC had dedicated facsimile

machines: one for send and one for receive. The UDAC also had a dedicated copy machine. Status boards containing wind direction and velocity, and stability class, PARs and field monitoring data were used and updated promptly as new information became available. There was an adequate number of protective action zone (PAZ) maps strategically placed throughout the UDAC.

The ability to direct and control emergency operations was demonstrated in the UDAC. The UDAC Coordinator from San Luis Obispo County in conjunction with the Radiological Manager from PG&E demonstrated the ability to direct and control emergency operations within the UDAC. The UDAC Coordinator and the Radiological Manager were required to frequently be out of the UDAC for meetings with either the PG&E EOF Recovery Manager or San Luis Obispo County Emergency Operations Center (SLOCEOC) personnel. Each time the UDAC Coordinator or Radiological Manager had to leave the UDAC, they appointed SLO County Assistant UDAC Coordinator and the PG&E Emergency Supervising Engineer to be in charge during their absence from the UDAC.

The UDAC Coordinator and Radiological Managers provided regular briefings to the UDAC staff. The UDAC Coordinator solicited advice from appropriate UDAC staff members during the development of protective action recommendations. Copies of procedures were available and used by the UDAC staff. The UDAC staff and UDAC Coordinator followed their procedures. This corrected ARCA #19-98-3-A-1 from the 1998 exercise, in which the UDAC Coordinator left the County Health Officer (CHO) out the communications loop when the dosimeter correction factor was provided to the Emergency Worker Exposure Control (EWEC) desk. During this exercise, the UDAC Coordinator provided the dosimeter correction factor to both the CHO and the EWEC desk.

The staff at the UDAC successfully demonstrated the capability to communicate with all appropriate emergency staff at facilities and in the field. The RMD was the primary communication link between the UDAC staff and the FMTs and the Off-site Environmental Laboratory (OEL): The FMTs provided monitoring data and the OEL laboratory data that characterized the direction and magnitude of radioactive plume that the RMD then reported to the UDAC staff. The facilities engineer, radiological staff, and meteorological staff provided the RMD with estimates of radioactive material released, estimates of the exposure dose associated with the release, and values for the wind direction and velocity that described the probable dispersion of the plume, respectively. With this information, the RMD could direct the FMTs. The RMD's facility had sufficient primary and backup communications systems to perform its function. The primary system, the HP Net, was used to communicate between the OEL and FMTs. The backup system is the radio net referred to as the Brown Net. Use of the telephone to contact the FMTs via their cellular telephones was also demonstrated. All communications systems, such as facsimile and commercial telephone operated properly throughout the exercise.

The capability to develop dose projections and to develop PARs was not adequately demonstrated by UDAC personnel. The PG&E dose assessors made frequent dose projections

that addressed all changes in the Unit 1 plant conditions, and changes in wind speed or wind direction. PG&E then shared the source term information that they developed, or plant monitor data that they used in their dose projections with the County Environmental Health and the DHS dose assessors who utilized independent models for their dose projections. The PG&E primary means of dose projection, the EARS database and MIDAS, was not always operating. The PG&E staff promptly switched to the Quick Dose Model and the County used the Gauss model. There was relatively good agreement between the different projection models for locations within the plume EPZ. All dose projections were timely. The DHS dose assessor had some initial difficulties using the Rapid Assessment System for Consequence Analysis (RASCAL) computer code, but with continued use, the DHS understanding of the capabilities of the RASCAL computer code improved. However, at one time the RASCAL dose projections, which compared favorably with the PG&E dose projections at the 10-mile distance, had indicated that the plume PAGs would be exceeded at a 25-mile distance. This information was not shared by DHS with other UDAC dose assessors.

PARs were updated on a 30-minute time interval or more frequently if plant or meteorological conditions changed. All PARs were timely, and a total of 21 PARs were written. The County PAR developer and the PG&E Agency Liaison worked together to generate all of the PARs. The UDAC Coordinator and Radiological Manager reviewed the PARs, the UDAC was then briefed on the PAR and consensus on the PAR was received from the UDAC staff. At least two of these PARs were amended by the CHO and others were amended by the EOF Recovery Manager (RM). Only three PARs were related to evacuation of PAZs. Many of the PARs reflected no change in recommendations. At 1103, PAR form number 9 was issued by the PG&E RM, which recommended evacuation of PAZs 1 and 2 based upon the existing plant conditions. At 1208, PAR form number 14 was issued and contained the information that the dose level at the facility boundary had exceeded the Protective Action Guidelines (PAG), but no protective recommendation was issued. At 1238, PAR form number 15 recommended protective action at PAZ 3. At 1300, PAR form number 16 recommended that potassium iodide (KI) be taken by off-site FMTs. At 1317, PAR form number 17 recommended evacuation of PAZs 6 and 7.

The RMD directed the joint PG&E and County FMTs. Based on the current and forecasted meteorological conditions, the RMD positioned the three FMTs at fixed monitoring locations that would be in or near the projected plume path. The RMD was resourceful in resolving communications problems with the field teams, that were caused by an actual loss of power to the repeaters for the PG&E radio system. All FMTs were able to switch to the SLO County radio system or use cellular telephone to continue their communications. The RMD also tracked the FMT members' accumulated exposures on a dosimetry record log form. The RMD entered the FMT measurement data into the ERNI computer system and the data were also entered on a status board for those to view who did not have an ERNI computer screen.

At one point the EWEC desk requested the dosimeter correction factor from UDAC. The PG&E Emergency Supervising Engineer obtained a factor of 43 from a pre-calculated table in his procedures. This factor was provided to all the appropriate personnel in UDAC and the

SLOCEOC. The value of 43 used during the exercise was not correct for total effective dose equivalent (TEDE) calculations. No UDAC staff was tasked with verifying if the selected factor was the correct value for the current plant conditions. The value of 43 was meant for use in calculating the thyroid committed dose equivalent (CDE) from the dosimeter readings. The value of 43 was also from a different accident scenario. Currently there is only one column in the table that contains TEDE dosimeter conversion factors and there is no indication that these factors are based on the use of KI.

During the PAR development process, the UDAC Coordinator made excellent use of all the UDAC staff to provide input to the PARs. The County Agriculture representatives were very pro-active and had all the appropriate information available to support PAR development related to ingestion pathway issues.

The capability and resources to implement KI as a protective action for FMTs was demonstrated by UDAC. Prior to dispatching the FMTs to their field locations, the RMD contacted the OEL and directed the OEL staff to determine if any of the FMT members were allergic to KI. If any FMT members were allergic to KI they were not to be used on FMTs that were to be sent into potential plume locations. This action corrected prior ARCA 19-96-14-A-12. The RMD promptly notified the FMTs when the County Health Officer authorized the use of KI for the FMTs and other emergency workers in Zones 1, 2 and 3. There was good coordination in UDAC to assure that both the PG&E and SLO County criteria were met before KI was authorized for the joint FMTs. The RMD maintained good records of the KI simulated ingestion by the FMT members.

Areas Requiring Corrective Action

19-00-7-A-1. Need for training on use of RASCAL computer code

NUREG-0654 Reference I.10

Objective #7

Demonstration Criterion #1

1. **Description:** The DHS dose assessor had some initial difficulties using the RASCAL computer code, but with continued use, the DHS understanding of the capabilities of the RASCAL computer code improved. However, at one time the RASCAL dose projections, which compared favorably with the PG&E dose projections at the 10-mile distance, had indicated that the plume PAGs would be exceeded at a 25-mile distance. This information was not shared by DHS with other UDAC dose assessors.

2. **Recommendation:** Provide additional training on the use of the RASCAL code. The training needs to include the different calculation options that are available, i.e., there is a calculation mode for use with containment monitor readings, and the proper way to determine the length of exposure time setting. Stress the importance of reconciling dose projection differences, especially those that may indicate that additional protective actions are warranted.
3. **Corrective Action:** The County will encourage the State of California Department of Health Services to take the necessary steps to correct this ARCA.

19-00-7-A-2. Incorrect Dosimeter Correction Factor

NUREG-0654 Reference 1.10.

Objective #7

Demonstration Criterion #1

1. **Description:** At one point the EWEC desk requested the dosimeter correction factor from UDAC. The PG&E Emergency Supervising Engineer obtained a factor of 43 from a pre-calculated table in his procedures. This factor was provided to all the appropriate personnel in UDAC and the SLOCEOC. The value of 43 used during the exercise was not correct for TEDE dose calculations. No UDAC staff was tasked with verifying if the selected factor was the correct value for the current plant conditions. The value of 43 was meant for use in calculating thyroid CDE from the dosimeter readings. The value of 43 was also from a different accident scenario. Currently there is only one column in the table that contains TEDE dosimeter conversion factors and there is no indication that these factors are based on the use of KI.
2. **Recommendation:** The pre-calculated dosimeter conversion factor table needs to be re-evaluated with respect to the affect of taking KI on the TEDE conversion factor. A second column of values needs to be developed, similar to the thyroid dosimeter factors. Develop some type of check and balance system to provide some quality assurance on the selection of the dosimeter correction factor.
3. **Corrective Action:** The County will take steps to see that appropriate corrective measures will be taken by PG&E to correct this ARCA. It has been added to PG&E's corrective action system. Procedure EP-EF-3 will be revised to include a column for TEDE conversion after KI administration. This will be completed by December 1, 2000.

Prior Areas Requiring Corrective Action – Corrected

19-98-3-A-1. Correction Factor

NUREG-0654 Reference I.10., N.1.a.

Objective #3

Demonstration Criterion #2

1. **Description:** The UDAC Coordinator did not follow all of the steps in Checklist 1 of Procedure III.06, HP-12. This resulted in the UDAC Coordinator leaving the CHO out of the communications loop when the UDAC Coordinator provided the dosimeter correction factor directly to EWEC desk in the SLOCEOC. This contributed to confusion, by both EWEC and the CHO, about how to correctly apply the dosimeter correction factor.
2. **Recommendation:** Emphasize the proper communications links during the annual refresher training.

19-96-14-A-12. Use of FMT Bravo after KI Order

NUREG-0654 Reference J.10.e., J.10.f.

Objective #14

Demonstration Criteria #1

1. **Description:** One PG&E FMT-Bravo member was allergic to KI and would not take KI. The RMD led a discussion on how to use FMT-Bravo, and eventually dispatched them to take samples in a location outside the plume, but still within a PAZ covered by the CHO's KI order.
2. **Recommendation:** Train UDAC staff to ensure all emergency workers follow the orders of the CHO, or remove from the EPZ those who do not comply with the orders of the CHO.

Prior Areas Requiring Corrective Action – Uncorrected

None

o SAN LUIS OBISPO COUNTY EMERGENCY OPERATIONS CENTER

There were thirteen objectives selected for demonstration, observation, and evaluation at the San Luis Obispo County Emergency Operations Center (Objective Numbers 1, 2, 3, 4, 5, 9, 10, 11, 12, 14, 15, 16 and 17). Twelve objectives were met, and an ARCA was identified for one objective. Two ARCAs from a previous exercise were corrected. There are no uncorrected

ARCAs from past exercises.

The SLOCEOC demonstrated the ability to alert and mobilize staff in an efficient and timely manner during an emergency. The SLOCEOC received notification of the Alert ECL from Diablo Canyon Power Plant (DCPP) in the County Sheriff's Office Dispatch Center Watch Commander's office via commercial telephone at 0758. The initial notification call was followed by hard copy documentation (via facsimile) and the Watch Commander authenticated the call at 0802. Two additional commercial telephone calls providing updated information from DCPP (and the corresponding facsimile documents) were received at 0824 and 0849. After the 0849 call, all communications from DCPP were received in the "command" room of the EOC.

The SLOCEOC did not use the dedicated communication link (the "red phone") to receive the initial notification, nor any other notifications from DCPP. The system appeared to be operational at 0734 but was not observed to be used during the exercise. The determination of operational status is based on the observation of the Watch Commander answering the red phone when it began ringing at 0734. The act of answering the phone set into motion a series of events. The system will then ring at all of the other locations. The Watch Commander had a discussion with the other parties on the line and indicated to the evaluator and the controller that the call was a "false ringdown". No further red phone calls were observed to have been received in the Watch Commander's office during the exercise. No discussion was observed regarding the lack of use of the red phone. The back-up system (commercial telephone) was utilized in an appropriate and effective manner and the calls were authenticated.

At 0804 the Watch Commander and his "second" initiated the notification of County emergency personnel via pager, and the other notifications via telephone, as identified in the plans and procedures. These notifications were completed by 0845, as reported to the Sheriff's Office Lieutenant in the operations room. SLOCEOC staff began arriving at the EOC within minutes after being notified, and began operations immediately. The SLOCEOC is a dedicated facility and therefore did not need to be "set-up" or "brought up to speed" to be functional. The EOC public address system was used to inform everyone that the SLOCEOC was activated at 0851, the director was in place (and all necessary staff were in place) and the SLOCEOC was declared operational by 0856.

The adequacy of facilities, equipment, displays, and other materials to support emergency operations was demonstrated at the SLOCEOC. The SLOCEOC has adequate facilities, equipment, displays and other materials and capabilities to support an emergency response to nuclear accident. The facility is co-located with the Sheriff's Office 911 Dispatch Center and the UDAC and is a dedicated facility. The facility was designed to handle the large-scale response operations for various emergencies. There are extensive and redundant communication systems, including telephone, radio, and computer links. Multiple copiers and facsimile machines are present and were used extensively. Computers were available and were used as required/appropriate. Various areas/rooms were used to provide functionality to the response, e.g., command room, operations room, Watch Commander's office, logistics, public information,

and others. There is a "bunk" room and kitchen available to EOC staff if necessary. Access to the facility was controlled and all responders were provided badges or other means of identification (vests with their position identified). The appropriate County Plans and Procedures excerpts/checklists were placed in binders and presented to the staff for each response position/function.

The capability to direct and control emergency operations was not demonstrated in the SLOCEOC. The Emergency Services Director/Incident Commander (ESD/IC) was clearly in-charge of the response. The ESD/IC was personally in-charge of the activities in the Command Room of the SLOCEOC. Staff from SLO County agencies, the State, and the utility in the Command Room as specified in the plan supported him. A deputy ESD/IC served as lead when the primary ESD/IC was out of the Command Room. Both individuals demonstrated the ability to direct and control activities. Support staff maintained status boards and operated a documentation unit. SLOCEOC staff was instructed to use their checklists and message forms. The ESD/IC conducted briefings in the Command Room on a periodic basis, generally hourly or when the situation warranted. In the initial Command Room briefing at approximately 0909, the representative for the Sheriff's Department announced that he had instructed his staff to make telephone calls to residents of PAZs 1 and 2 to tell the residents to evacuate. This action was taken on a unilateral basis without consultation with any Command Room staff or approval of the designated decision-maker. This error was discussed and the ESD/IC gave clear instruction to rescind this activity. The utility representative provided excellent explanations of the plant status and, when appropriate, arranged for the utility Recovery Manger to provide a personal briefing to the Command Room staff. On several occasions the ESD/IC briefed representatives of all SLOCEOC agencies. When decisions on protective actions were warranted, the ESD/IC obtained input from all Command Room staff, considered their recommendations and quickly and efficiently made decisions. When the first public protective action decision was made at 1045 for evacuation of PAZs 1 and 2, the representative for the Sheriff's Department directed his staff to sound sirens in PAZs 1 and 2 only. This limited siren activation was not in accordance with plans and procedures and was not a result of any discussion in the Command Room. When this information became known in the Command Room, the ESD/IC directed an excellent discussion on the advantages and disadvantages of re-sounding the sirens throughout the entire planning zone with a repeat broadcast of the EAS message. With the exception of the two instances discussed above, the plans and procedures were followed.

The capability to communicate with all appropriate emergency staff at facilities and in the field was adequately demonstrated at the SLOCEOC. A dedicated telephone line was available but not used as the primary means of communication with the utility. Commercial telephone was used as the primary means of communication with the Utility, County and State agencies and municipalities involved in the exercise. In addition to telephone, radio systems were also used as a primary means of communication. Amateur Radio Emergency Services (ARES) and Radio Amateur Civil Emergency Services (RACES) were extensively used as backup communications. The radio systems demonstrated at the SLOCEOC during this exercise included High Frequency, UHF and VHF transceivers and packet radios. There were 27 RACES/ARES operators located at

various sites during the exercise according to the representative in the SLOCEOC. Other backup communications included facsimile machines, a variety of supplementary telephone and County radio systems, cellular telephones, and a computer terminal connected with the San Luis Obispo net/Internet. As specified in the extent-of-play agreement, all primary communications systems were demonstrated and backup systems were, at a minimum, checked for operability. There were no malfunctions or breakdowns in communications equipment and no delays were observed in the transfer of information.

The EWEC staff at the SLOCEOC adequately demonstrated the capability to continuously monitor and control radiation exposure to emergency workers. The EWEC Supervisor and staff were very knowledgeable about their role in coordinating worker exposure control for the County. The supervisor reviewed staff responsibilities and oversaw staff making contact by phone with agencies that would potentially deploy workers to the field to confirm that they had sufficient supplies of dosimetry kits and KI. During the phone calls, the agencies were asked to fax forms with name, social security numbers and types of dosimetry issued to their staff. This initial survey of the agency exposure control centers was completed in about 18 minutes. At this point in the exercise, the EWEC staff demonstrated an unannounced/unscheduled shift change, efficiently apprising the changing shift of events and picking up where the previous shift had left off. Per instructions from the supervisor, when an agency did not fax the information in a timely manner, the EWEC staff re-contacted the various agencies requesting the forms. This follow up was completed within 10 minutes, resulting in the necessary dosimetry issuance forms being faxed to the SLOCEOC.

At one point during the exercise, the UDAC field team coordinator asked the EWEC staff whether they had received any dosimeter readings from the FMTs and was correctly told that these readings should be provided to UDAC, which in turn should report any readings above 250 mR to the EWEC supervisor for coordination with the County Health Officer. The EWEC staff was informed that if they received notification of 250 mR, 500 mR, 750 mR, etc., dosimeter readings from the agency exposure control centers that they were to provide this information to the CHO.

During the General Emergency ECL, the CHO directed the EWEC supervisor to instruct field workers to report DRD readings in 10 mR increments rather than the above noted increments of 250 mR or higher. The EWEC staff proceeded to contact by telephone all affected agencies that had deployed emergency workers to the field.

In an out-of-sequence demonstration, EWEC received a notification that a field worker had a DRD reading that would be equivalent to greater than 1000 mrem. The EWEC staff notified the CHO, whose decision was not to authorize additional exposure and to remove the worker from the field.

The related emergency worker exposure control activities demonstrated at the EWEC Desk at the SLOCEOC were in accordance with SOP III.06 HP-11, Emergency Worker Exposure Control (revised April 2000).

The capability to make timely and appropriate protective action decisions was demonstrated in the SLOCEOC. The ESD/IC was the decision-maker. He considered recommendations from the staff in the Command Room, UDAC recommendations, and, on a few occasions, results of direct discussions with the utility Recovery Manager. The ESD/IC conducted productive and informative discussions whenever a PAD was necessary. He and his staff were proactive in considering "what if situations" before they were needed. Three general public PADs were made during the incident. Initially, the decision (1045) was for the evacuation of PAZs 1 and 2. Later as the release of radioactive material continued and the meteorological condition changed, the decision was made (1209) to expand the evacuation to include PAZ 3. Still later (1321), PAZs 6 and 7 were added to the evacuation area. All appropriate factors were considered whenever PADs were being considered. These included the nuclear plant status, projected off-site doses at various distances, established PAGs and current and projected meteorological conditions. There were discussions related to evacuation time estimates and their impact on decisions; however, these were not the controlling consideration.

A decision was made (1301) to recommend/approve the ingestion of KI by emergency worker in PAZs 1, 2, or 3. Prior to approving this decision, there was good coordination with the utility to assure that all field emergency workers were being treated equally. This decision was passed to the workers in the field primarily by the EWEC desk and by organizational representatives in the SLOCEOC.

The ESD/IC took actions to correct the unilateral uncoordinated actions discussed above with regard to early evacuation instruction for residents in PAZs 1 and 2. Appropriate paperwork was generated to rescind the action that had been started; however, it might have been more effective to make a PA announcement to instruct all actions to stop on this activity.

The capability to promptly alert and notify the public within the emergency planning zone was demonstrated in the SLOCEOC. The response organization uses fixed sirens to alert the public and Emergency Alert System (EAS) broadcasts to provide instructions to the public. The instructions are supplemented by news releases and press briefings. Primary and back-up route-alerting are not planned options. However, there is supplemental route-alerting if needed.

There were four Alert and Notification (A&N) sequences during this incident (Table 4). All four sequences were accomplished within 15-minutes of the decision that required notification of the public. The first decision was made at 1045 and sirens were sounded at 1057 with EAS initiation at 1100. Because only the sirens in PAZs 1 and 2 were sounded at the time as discussed above, a decision was made at 1110 to re-activate the A&N system with the exact same message to the public and sounding of all sirens within the EPZ. Sirens for this sequence were sounded at 1122 with the EAS broadcast at 1125. The third A&N sequence was for the evacuation of PAZ 3. The

decision time was 1209 with sirens at 1221 and EAS at 1224. The final A&N sequence was for the evacuation of PAZs 6 and 7. The decision was at 1321, sirens at 1333 and EAS at 1336.

The SLOCEOC made arrangements with the United States Coast Guard (USCG) to establish a marine safety zone within 10-miles of the plant site on the ocean waters.

Supplemental route-alerting was discussed at a field location in accordance with the extent-of-play agreement.

**TABLE 4
ALERT AND NOTIFICATION SEQUENCE
TIMELINE**

ALERT AND NOTIFICATION SEQUENCE #	TIME OF DECISION	TIME SIRENS SOUNDED	TIME OF EAS BROADCAST
#1 Evacuate PAZs 1&2	1045	1057	1100
#2 Evacuate PAZs 1&2 (rebroadcast of EAS #1 since not all sirens had been sounded)	1110	1122	1125
#3 Evacuate PAZ 3	1209	1221	1224
#4 Evacuate PAZs 6&7	1321	1333	1336

The capability to coordinate the formulation and dissemination of accurate information and instructions was demonstrated. Public information and emergency instructions were developed and released by the SLOCEOC. The Emergency Services Director authorized all EAS messages and news releases.

SLOCEOC issued four EAS messages and two supplemental EAS messages (Table 5). Prescribed messages were to be modified to reflect the public protective actions recommended by the decision-maker. There was one problem observed with this process. Both EAS #1 and #2 instruct the public to begin evacuation of PAZs 1 and 2. However, each message contained a paragraph that stated, "County officials will promptly notify the public of any emergency protective measures such as evacuation or sheltering in place, should they become necessary." Care should be taken in editing these prescribed messages before they are issued. In addition to the evacuation directions, the messages instructed the public to stay tuned to the EAS station for further information. The messages were informative and contained information that was clear and used understandable language. The messages were broadcast in English.

The EAS coordinator would read the EAS message into the EAS encoder. Upon completion of the message, the coordinator would then key-in the appropriate EAS code and transmit the message to the three EAS stations. Once the transmission was completed, the coordinator would press the broadcast button and the decoder at the station EAS would automatically interrupt normal broadcasting for the EAS message. According to the EAS Coordinator, the message was re-broadcasted continuously, until a new message was issued. Total time for reading and transferring the message was four minutes.

The County also used the EAS encoder to broadcast supplemental EAS messages. The encoder automatically limits all messages to two minutes. All of the pre-scripted messages had to be adjusted to meet the two-minute window. This limited the amount of information able to be broadcast to the public at any one time.

Under the current system, public instructions were contained in the primary (four issued) and supplemental (two issued) messages. Between the two, all appropriate and necessary information was provided to the public for the PAZs that were included in the evacuation order. Evacuation areas were described by PAZ number as well as in terms of familiar landmark boundaries.

**TABLE 5
EAS MESSAGES**

EAS NUMBER	TIME APPROVED	TIME BROADCAST	SUBJECT
1	1051	1100	Evacuation PAZ 1 & 2
2	1112	1125	Evacuation PAZ 1 & 2
Supplement 1	1146	1150	Evacuation PAZ 1 & 2
3	1215	1224	Evacuation PAZ 3
Supplement 2	1237	1242	Evacuation PAZ 1,2 & 3
4	1329	1336	Evacuation PAZ 6 & 7

Hard copies of all EAS messages were available for EOC staff member to read. Copies were also transmitted electronically to the Joint Media Center (JMC).

Based on an interview with the County, the County has made arrangements with the radio stations that are not staffed twenty-four hours a day, or not staffed at all. During an emergency, the radio station would staff the station twenty-four hours a day. The County would fax supplemental EAS message to the radio station, and the station would broadcast the supplement.

The capability to coordinate the development and dissemination of clear, accurate and timely information to the news media was demonstrated. The primary function performed at the EOC with respect to this objective was to generate, approve and transmit the approved news releases to the JMC. The media received the news releases in the JMC where news briefings were also

conducted. The SLOCEOC staff provided additional information to support the news briefings.

Twenty-one releases were approved and transmitted to the JMC (Table 6).

**TABLE 6
SAN LUIS OBISPO COUNTY
NEWS RELEASES**

NEWS RELEASE	TIME APPROVED	SUBJECT
1	0859	Alert at Diablo Canyon
2	0914	Media Center Activation
3	0914	Background Information
4	0937	Parks Closures
5	0951	Additional Parks Closures
6	1010	Site Area Emergency
7	1023	Schools Officials Actions
8	1030	Local Declaration of Emergency
9	1045	Additional Parks Closures
10	1115	Schools Officials Actions
11	1137	Evacuation of PAZ 1 and 2
12	1119	Governor's Declaration, State of Emergency
13	1120	Cal Poly Explosion and Fire
14	1210	Schools Officials Actions
15	1215	Additional Parks Closures
16	1237	Governor's Declaration, State of Emergency
17	1237	School Officials Actions
18	1309	Cal Poly Feed mill Fire
19	1402	School Officials Actions
20	1406	Public Instruction for Preparing for an Evacuation
21	1417	Status of Emergency Operations

The pre-scripted news releases were drafted and edited on a desktop computer to reflect the current situation. Several of the news releases dealing with parks and beaches and schools (e.g. NR #s 5, 9, 10, 14, 15, 17, 19) give a chronology of actions taken. Although the new information is clearly distinguished from the previous information, the old information is presented first and the new information is last. Someone reading the release may assume that this is just a restatement of a previous release and not get to the new information at the end. The County may wish to consider reversing this and put the new information first. The news releases were accurate at the time of distribution, with one exception. NR #21 states that the radiological release began at 1235. The correct time for the start of the release was 1150. However, with this one

exception, the news releases were accurate and complete. This corrected ARCA #19-96-11-A-18. After approval, the text was transmitted electronically to the JMC, where hard copies were printed for distribution to the media. Hard copies were also distributed to the EOC staff. The Public Information Coordinator (PIC) would receive calls from the JMC requesting information on rumors that they were receiving. The PIC researched each rumor and would forward the appropriate response back to the JMC.

The capability to implement KI protective actions for emergency workers was demonstrated. The EWEC staff at the SLOCEOC is responsible for communicating with agencies that have potentially deployed emergency workers to the field. The EWEC supervisor and staff were very knowledgeable about their role in coordinating worker exposure control for the County. In making telephone contact with the agencies, the EWEC staff confirmed that each Agency had sufficient supplies of dosimetry kits and KI. When the decision was made by the CHO to advise emergency workers in PAZs 1, 2 and 3 to take one KI tablet, it was promptly relayed to the EWEC supervisor. The EWEC supervisor in turn briefed the EWEC staff and instructed them to call each agency and relay the KI decision. These calls were completed within approximately 20 minutes. Follow-up calls were made to the various agencies asking them to fax rosters of workers in the field who had ingested KI. All of the activities regarding the distribution and administration of KI for which the EWEC is responsible were carried out in accordance with Step 7 (CHO) of SOP III.06 HP-5, Stable Iodine Thyroid Blocking (revised April 2000).

The SLOCEOC demonstrated the capability and resources to implement protective actions for special populations. Upon arrival at the EOC, representatives of the County Engineer and San Luis Obispo Regional Transit Authority (SLORTA) made contact with their transportation sources in the county and determined the availability of transport to assist the car-less population as well as the special populations. Calls were made in real time to real sources and were not simulated. They went through their checklists and were able to determine the transport and personnel available including vehicles with wheel chair lifts.

During the exercise, requests were received (from the simulation cell) by the County Division of Social Services (DSS) Phone Assistance Center (PAC) for transport assistance for handicapped and bedridden individuals. The PAC passed the request on to the DSS representative at the EOC who solicited information from the individuals as to their needs. The request was then passed to the SLORTA representatives, who in turn contacted the individuals (by calling the Simulation Cell) and further refined the request by asking about the capabilities and limitations of the individuals needing transport. Both the DSS and SLORTA representatives indicated that time and effort would be saved if there were a form that could be used to further refine the needs of the individual requesting the transportation. Actually, such form is contained in the DSS procedures for the PAC.

Once the type of transport was determined, the SLORTA representatives contacted appropriate transport providers and arranged for the vehicles and drivers. Individuals were picked up and

transported to the nearest car-less collection point where they would be again picked up and transported to a reception/congregate care center.

For individuals who were bedridden, the request for transport was passed on to the EOC Medical Liaison Representative (MLR) who made appropriate transport arrangements. The MLR determined where the individual was to be sent. In some cases the non-ambulatory transported individual was part of a family group which might include a care giver and other ambulatory individuals who would not be transported in the ambulance, but be transported by other means to the nearest car-less collection point. The County Engineer and the DSS representative both indicated that their Standard Operating Procedures (SOP) directed their transported individuals be taken to the car-less collection point and were concerned about this. They felt that some individuals (care givers) would be better served if taken to the facility to which the non-ambulatory person was being sent so as to be better able to care for them. There is an area of unclear jurisdiction in handling such situations.

The SLOCEOC demonstrated the capability and resources to implement protective actions for schoolchildren within the plume pathway emergency planning zone. The County Office of Education (COE) Director of Operations was contacted at the Alert ECL about the situation at DCP. While at his office he passed the notification to the various district superintendents who have protective action decision-making authority for schools within their districts. He then relocated to the EOC, arriving at 0825. He immediately began going through his checklist and determined the availability of both busses and drivers. He also contacted the Mid-State Fairgrounds and Allan Hancock College to alert them to the situation and prepare them to receive students. He dispatched a bus to the Bellevue-Santa Fe charter school, the most likely school to be impacted (the school re-located to C.L. Smith School at 0956, during the Alert ECL). He also contacted and retrieved a bus of students traveling on a field trip to Diablo Canyon (real trip, simulated recall). He then staged busses at schools in the PAZs closest to DCP. At 0855 the COE Deputy Superintendent arrived and the two began to work as a team.

The staged busses began to arrive at the schools about 0907. As the situation at DCP developed, the COE kept the District personnel informed. When the Districts made decisions to evacuate the schools, such as the decision to evacuate all schools in PAZ 5 at 1038 (at the Site Area Emergency (SAE) ECL) to the Mid-State Fairgrounds, that information was transmitted by District personnel to the COE representatives at the EOC. COE representatives then posted the information on status boards in both the Shelter and Welfare room as well as in the Decision-makers room at the EOC. Status boards were usually updated within 5-10 minutes of the actions being known to the COE representatives.

When decisions were made by the districts to evacuate more schools, the COE representatives kept track of the availability of school busses and drivers. When more busses were needed than the local district had available, arrangements were made to obtain them from neighboring districts. At peak evacuation time, a total of 57 busses and drivers were obtained from three neighboring districts and SLORTA.

As the movement of schools was completed and the schools closed, the information was noted on the two bulletin boards. The information on the bulletin boards was used by the Public Information Officer to develop news releases to inform the public as to what schools had been evacuated, where the schoolchildren had been transported and where parents could go to pick up their children. On several occasions the Public Information Officer (PIO) consulted with the COE representatives to confirm the information on the boards.

The organizational capability and resources necessary to control evacuation flow and to control access to evacuated areas was demonstrated. The SLOCEOC staff ensured that access and traffic control procedures were initiated and followed as appropriate for the response. The simulated traffic control was activated in support of the response operations (evacuation) for PAZs 1, 2, 3, 6, and 7. Access control (simulated) was provided for the evacuated zones at the appropriate time and locations. All necessary and appropriate traffic control points (TCP) and access control points (ACP) were identified and staffed. This corrected ARCA #19-98-17-A-2. Support for traffic and access control was available from the County Roads Maintenance Department, California Highway Patrol (CHP), County Sheriff's Office, State Parks and the California Department of Forestry (CDF), as necessary. In addition, the County Sheriff's Office ensured that tow trucks were staged to provide support in case of the occurrence of accidents or other impediments to the evacuation process.

TCPs and ACPs were adjusted as the evacuation process progressed. Initially, traffic control was provided for precautionary evacuation of the State Parks and Beaches, and PAZs 1 & 2 at 0934. After the evacuation of PAZs 1 & 2 was completed, ACPs were established at appropriate locations to restrict entry into the evacuated areas (by 1205). When the decision was made to evacuate PAZs 3, 6 & 7 (1225 and 1336), additional TCPs were added to facilitate the evacuation of those areas. Upon completion of the evacuation of those zones, access control would have been established for those areas also.

Traffic control along Highway 101 was facilitated by the CHP and California Department of Transportation (CALTRANS) personnel, their vehicles, and barricades. CALTRANS provided electronic message boards to facilitate traffic flow. Messages would have been provided to the transiting population identifying ramp closures or other important information. The traffic flow on Highway 101 from both the northern and southern adjacent counties was routed east to Interstate 5 if possible. Traffic flow from the north on Highway 1 was diverted away from San Luis Obispo whenever possible. Traffic was restricted to local residents in the San Luis Obispo County PAZs that were not evacuated.

At 1052 the County requested that the State assist in stopping rail and air traffic in the area of DCCP. The State provided assistance by contacting the Federal Aviation Administration and the railroads to inform them of the restrictions. The County notified the USCG and requested that they inform all ships within 10 miles of DCCP about the accident and the restricted zone. The marine safety zone was established by 1441.

Area Requiring Corrective Action

19-00-3-A-3. Unilateral Staff Actions

NUREG-0654 Reference N.1.a.

Objective #3

Demonstration Criterion #2

1. **Description:** The representative for the Sheriff's Department announced at approximately 0910 that he had instructed his staff to make telephone calls to residents of PAZs 1 and 2 to tell the residents to evacuate. This action was taken on a unilateral basis without consultation with any Command Room staff or approval of the designated decision-maker. In addition, when the first public protective action decision was made at 1045 for evacuation of PAZs 1 and 2, the representative for the Sheriff's Department directed his staff to sound sirens in PAZs 1 and 2 only. This limited siren activation was not in accordance with plans and procedures and was not a result of any discussion in the Command Room.
2. **Recommendation:** Ensure that the representative for the Sheriff's Department receives additional training to raise the level of awareness of the chain-of-command for public protective action decisions and to assure that the concept of operations is understood.
3. **Corrective Action:** The County will enhance training to Sheriff's Department management personnel in implementing the Sheriff's Department procedure. In addition, during the next review of the Sheriff's Department SOP, County OES will examine the language for sounding the sirens and implementing the notification of the Low Population Zone to determine whether minor additional language to make the procedure more clear is needed. The training corrective measures for this ARCA will be completed by 12/1/2000. The SOP review will be completed as part of the regular annual update, now scheduled for completion by 12/1/2000.

Prior Areas Requiring Corrective Action – Corrected

19-96-11-A-18: Inaccurate Information in News Releases

NUREG-0654 Reference E.7

Objective #12
Demonstration Criterion #2

1. **Description:** Several of the News Releases developed in the SLOCEOC contained information that was inaccurate at the time the News Release was approved. For example, in News Release #6, the initial release occurred during the Alert, not the SAE ECL. Also, Camp Roberts was not opened until 1130. In News Release #5, Cayucos Elementary School Students were not moved to the C.L. Smith School. Dana Elementary, Nipomo Elementary and Nipomo Pre-school are not in SLCUSD, they are in the LMUSD which had moved its students to Allen Hancock College. Also, for Nipomo Pre-school only, parents ARE to pick-up their children at the pre-school. News Release #8 fails to mention that the ambulatory residents of the Seashell Community Senior Residence Center evacuating to an ARC shelter at Centennial Park in Paso Robles.
2. **Recommendation:** Develop a system to ensure that only accurate information is included in News Releases.

19-98-17-A-2. TCPs/ACPs

NUREG-0654 Reference J.10.j.

Objective #17
Demonstration Criteria #2

1. **Description:** Not all of the traffic control points identified in the Emergency Response Plan III.20 SOP Attachment CHP-3 were noted for action during the evacuation. In particular, the westbound routes on State Routes 46, 41, and 58 into the County were all omitted. Neither the News Release nor the CHP mention them.
2. **Recommendation:** Ensure CHP implements all necessary TCPs and ACPs according to their SOP.

Prior Areas Requiring Corrective Action – Uncorrected

None

EAS STATION INTERVIEW

There were two objectives selected for demonstration, observation, and evaluation for the EAS Station KKJG (Objectives Numbers 10 and 11). These objectives were demonstrated by interview. Both objectives were met. There are no uncorrected ARCAs from previous exercises.

On May 8, 2000, an interview was conducted with the owner/manager and engineer of radio station KKJG. The interview covered their operations with respect to the EAS in case of an incident at DCPD. Also present was a representative of the County Office of Emergency Services.

The station is a 1000-watt station operating on 1400 kHz, AM. Its footprint is from Paso Robles to Santa Maria (north to south). The station does not usually broadcast live, but receives feed from outside sources including CNN. While it is on the air 24 hours a day, the station is staffed only from 9 AM to 5 PM, and the staff consists of the manager, a programmer and an engineer. The station, along with most of the radio stations in the County, has an EAS decoder device that allows it to decode a message from the County EAS system. There is no backup power currently available; there is a generator but it has not been hooked up yet following a recent station location move.

In an emergency requiring EAS, the SLOCEOC would encode an activation signal and EAS message, then transmit them to the radio station using the County microwave "Purple Net". The EAS decoder at the radio station would record the message, which must be of less than 2 minutes duration. It would immediately interrupt normal broadcasting and broadcast the EAS message. Normal programming would then resume. There is no need for the station to be staffed for this action. Without staffing, however, the message is broadcast only once. Subsequent EAS messages displace existing messages.

A County OES representative at the SLOCEOC would normally make contact with the station manager early in the emergency and request that he make provision for someone at the station to record the initial EAS message and replay it periodically. That might require someone to staff the station during off-hours. Subsequent EAS messages would be handled in a similar manner. Under the EAS system there is no provision at this time for informational messages, or Special News Bulletins, to be broadcast. Information given to the media is broadcast live by other stations with live broadcast capability and the station manager indicated that he could and probably would re-transmit a feed from one of those other stations. He mentioned KVEC, a local news and talk station which is an EAS station as well. While KKJG does have a live broadcast capability, there is no broadcaster on staff. A direct line from the county to the radio station does exist to allow telephone contact outside of centrex lines but it has not yet been re-connected.

Under the old Emergency Broadcast System, there was a capability for the county to interrupt station programming and broadcast live from the SLOCEOC. The equipment for that capability does exist at KKJG but is not operational yet following the move.

The EAS system is tested on a weekly and monthly basis. Weekly there is a test from the county EAS station that is not re-transmitted. On a monthly basis there is a test that is re-transmitted, a daytime test one month alternating with a nighttime test the next. There are no reported problems with either test, according to station personnel.

The information brochure distributed by the utility notes that when the siren is sounded, the listener should tune to 1400 AM (and other specified frequencies) for information. With only one broadcast of the EAS message possible without staff input, and only a two minute message duration available, the possibility of repeated broadcast of the original EAS warning and subsequent Special News Bulletins with more detailed information may be compromised.

Areas Requiring Corrective Action

None

Prior Areas Requiring Corrective Action – Corrected

None

Prior Areas Requiring Corrective Action – Uncorrected

None

o JOINT MEDIA CENTER

There were six objectives established for demonstration, observation, and evaluation at the Joint Media Center (Objective Numbers 1, 2, 3, 4, 11 and 12). Five objectives were met, and one ARCA was identified. An ARCA from a previous exercise was closed. There are no uncorrected ARCAs from previous exercises.

The capability to alert and fully mobilize staff and to activate the JMC was demonstrated. The lead PIO for County OES received notification of the Alert ECL by telephone at 0759 from the watch commander for the sheriff's office at the SLOCEOC. JMC staff were notified of activation by telephone, pager or cell phone. A current staffing personnel roster from the Emergency Response Plan SOP III.08 for Public Information was used. JMC personnel were alerted to mobilize at 0759 and the JMC was declared fully activated at 0843. Elapsed time from first notification to full activation of JMC was 44 minutes. The following County staff were mobilized at this location: Lead PIO, Assistant PIOs (two positions), PIO support staff (four positions). Staff from DHS, CA OES and PG&E were also present.

The adequacy of facilities, equipment and displays to support emergency operations was demonstrated at the new facility on Kansas Avenue off of Highway 1 between San Luis Obispo

and Morro Bay. The JMC is located in a dedicated facility and minimal set up is required to make the facility operational. Overall, furnishings and space were adequate at the JMC, although space was somewhat limited in the PIO room. PG&E contract security staff provided security and access control. There was adequate equipment including copiers and computers. A local area network system was used to send press releases and EAS messages from the SLOCEOC to the JMC. The county now uses their own e-mail and staff commented that it was much easier to retrieve documents from the SLOCEOC. The facility has only one restroom for men and one for women. These are both located in the media briefing area. PIO staff must go through the media to use these facilities. The entrance to the PIO work area is also through the media briefing area. It would not be difficult to arrange a separate entrance to the PIO work area for PIO staff to use so that they can be fully briefed on the situation before having to address media inquiries. The facility could also be improved if the media briefings could be feed over a PA system to the PIO work area.

The County demonstrated the capability to direct and control emergency operations at the JMC. The Lead PIO for County OES was responsible for emergency response and coordination at this facility. In addition to acting as lead PIO and moderator at press briefings, he issued instructions to staff, stressed adherence to procedures, conducted briefings with staff while soliciting feedback, directed the compilation and retention of message forms, answered operational questions and provided a knowledgeable leadership at meetings and in decision-making.

The JMC staff demonstrated the capability to communicate with all necessary locations and organizations. There are adequate communication systems in the JMC. There were twenty-two telephones including one dedicated phone to DCCP. In addition to the telephone lines there were cellular telephones, radio capability, amateur radio (ARES/RACES with VHF/UHF capabilities), computers, facsimile machines, and a tone alert monitor (capable of monitoring SLOCEOC transmissions to "special" facilities). Telephone conferencing was also demonstrated. A local area network system was used to send news releases and EAS messages from the SLOCEOC to the JMC. Staff used these systems to communicate with these SLOCEOC positions: Assistant Emergency Services Director, PIO staff, PG&E EOC Public Information Manager (EPIM) who is technical advisor to PG&E, California State Parks District Superintendents, CHP Captain and Sergeant, and the American Red Cross (ARC) representative. PG&E staff also had a "listen only" capability to monitor discussion in the PG&E control room. There were no communication delays and no communications equipment malfunctions or breakdowns.

The County demonstrated the ability to coordinate the formulation and dissemination of accurate instructions to the public at the JMC. The JMC is a dissemination point for EAS messages and news releases that had been prepared at the SLOCEOC. Four EAS messages, two supplemental EAS messages and 21 County news releases were received via a local area network (LAN) from the EOC. All messages were promptly copied and disseminated to all personnel at the JMC, including those in the PAC. Copies of all these documents were also made available to the media. The Lead PIO read the text of the EAS messages to the press during the media briefings.

The ability to coordinate and disseminate clear, accurate and timely information to the news media was not adequately demonstrated. The seven media briefings (Table 7) were focused, timely and, with the exception of dose or exposure rate data, presented the most up-to-date information available. The only information on dose rate data presented was projected dose rates at the plant boundary. During Press Briefing #6 at approximately 1320, the media were told that the projected dose rate at the plant boundary was 3.7 rem per hour as of 1213. During Press Briefing #7 at about 1415, it was reported that the projected dose rate at the plant boundary had fallen to 1.1 rem per hour. The State DHS spokesperson made an attempt to explain what these numbers meant in terms the media could understand, but the media were not satisfied with this explanation. The County had received at least two Cities Liaison/PIO forms at the JMC (#8 and #9) that indicated projected dose rates at a distance of 2 miles from the plant (PAZ 1), but this information was not presented to the media. There was never any information on readings being obtained by the field teams (by 1345, there were at least three plume edge field measurements available in the UDAC). This was not a result of the lack of effort on the part of the JMC staff to obtain these data. The JMC PIO Assistant's log shows that a request was made to the EOC for "rad info" at 1251. At about 1410, the Lead PIO asked the PIM in the EOC for a UDAC representative to come to the JMC to discuss field monitoring data. However, the inability of the PIOs to either present this information or adequately explain why it was not available hurt their credibility. The media had been told about the evacuation of portions of the EPZ and the movement of school children; they wanted a better understanding of the nature of the risk. This caused considerable frustration for both the mock media and the JMC staff.

Representatives from the County, PG&E, CHP, California Department of Parks and Recreation (DPR), DHS, and State OES participated in the briefings. The briefings could be improved by having spokespersons from ARC, Sheriff's Office and COE deliver information pertinent to their organization's responsibilities. However, the speakers present adequately addressed these topics.

The Lead PIO was the moderator for all press briefings. He was responsive to the needs of the media present, but he also maintained control of the agenda at all times. Prior to each briefing, the PIO conducted a coordination briefing with the speakers to ascertain what they intended to present, and to decide on the order in which they would speak. PG&E employees played mock media.

During the course of the exercise, the PAC supervisor identified eight rumor trends. She reported each of these trends to the EOC liaison in the PIO room. The liaison called the EOC to check on these rumors. When the accuracy of these trends was determined from the EOC, he reported back to the PAC supervisor so that the phone team could give callers accurate responses to similar calls. During press briefings #2, #3, #4 and #6 the Lead PIO addressed these rumors as false. This corrected ARCA #19-98-12-A-3.

**TABLE 7
JOINT MEDIA CENTER:
PRESS BRIEFINGS**

BRIEFING #	BEGIN/END TIMES	SPEAKERS
1	0857/0910	County OES, PG&E
2	0930/0959	County OES, PG&E, CHP, Parks
3	1009/1030	County OES, PG&E
4	1056/1135	County OES, PG&E, CA OES, DHS
5	1216/1248	County OES, PG&E, CHP
6	1317/1348	County OES, PG&E, DHS, County OES Director
7	1415/1450	County OES, PG&E, CHP, CA OES, DHS

News releases and EAS messages were drafted at the County EOC and made available to the JMC over a local area network (Table 8). Once received, the 21 news releases and six EAS messages/supplemental messages were logged in and rapidly disseminated to JMC staff and the media. EAS messages that contained new PAD information were read or summarized by the Lead PIO during the following press briefing.

TABLE 8
JOINT MEDIA CENTER:
EAS MESSAGES & NEWS RELEASES

EAS/NR #	Time Approved at EOC	Time Disseminated at JMC
NR #1	0859	0912
NR #2	0914	0922
NR #3	0914	0925
NR #4	0937	0949
NR #5	0951	1002
NR #6	1010	1020
NR #7	1023	1030
NR #8	1030	1035
NR #9	1045	1052
EAS #1	1051	1108
EAS #2	1112	1121
NR #10	1115	1125
NR #11	1137	1144
NR #12	1119	1149
NR #13	1120	1149
Supp. EAS #1	1146	1154
EAS #3	1209 (PAD decision time)	1224
NR #14	1210	1221
NR #15	1215	1226
Supp. EAS #2	1237	1254
NR #16	1237	1247
NR #17	1237	1252
NR #18	1309	1318
EAS #4	1329	1338
NR #19	1402	1412
NR #20	1406	1415
NR #21	1417	1428

Area Requiring Corrective Action

19-00-12-A-4. Lack of Media Information on Radiation Monitoring Data

NUREG-0654 Reference G.3.a.,4.a.b.

Objective #12

Demonstration Criterion #2

1. **Description:** The only information on dose rates presented during the press briefings was projected rates at the plant boundary of 3.7 rem/hr and later 1.1 rem/hr. The State DHS spokesperson made an attempt to explain what these numbers meant in terms the media could understand, but the media were not satisfied with this explanation. The County had received at least two Cities Liaison/PIO forms at the JMC (#8 and #9) which indicated projected dose rates at a distance of 2 miles from the plant (PAZ 1), but this information was not presented to the media. There was never any information on readings being obtained by the field teams (by 1345, there were at least three plume edge field measurements available in the UDAC). The inability of the PIOs to either present this information or adequately explain why it was not available hurt their credibility.
2. **Recommendation:** Determine the reason for the lack of information on available dose projections and actual field measurement data. Ensure that having this information reach the media center in a timely fashion is a priority. Staff should be prepared to discuss the process of how information is obtained from field teams, and why it may not be available immediately. They should also be able to clearly explain the data in layman's terms when it is available.
3. **Corrective Action:** Several corrective measures are under consideration. This is a complex issue that extends over several areas involving both County and PG&E procedures. The first step will be to ensure that both the PG&E and County PIO understand the process by which FMTs obtain information. The target timeframe for implementing corrective measures is July 1, 2001.

Prior Areas Requiring Corrective Action – Corrected

19-98-12-A-3. Information Addressing Rumors

NUREG-0654 Reference E.7, G.4.a

Objective #12

Demonstration Criterion #2

1. **Description:** Although rumor trends identified by the PAC were referred to the EOC for verification and reported back to the PAC, no other action was taken to ensure that his information got out to the public. The County SOP III.08 requires that news releases be issued to correct false or misleading rumors. This is an EOC responsibility. However, during the press briefings, the Lead PIO could have, but did not, specifically address false or misleading rumors.
2. **Recommendation:** Ensure that information addressing false or misleading rumors is disseminated in news releases and press briefings.

Prior Areas Requiring Corrective Action – Uncorrected

None

o PHONE ASSISTANCE CENTER

There were five objectives established for demonstration, observation, and evaluation at the Phone Assistance Center (Objective Numbers 1, 2, 3, 4 and 13). All objectives were met. There are no uncorrected ARCAs from previous exercises.

The capability to alert, fully staff and to activate the PAC was demonstrated. The Division Manager of Department of Social Services verbally notified the PAC Supervisor at 0820. The PAC supervisor used a current staff roster to notify PAC staff by telephone. The PAC mobilized with five (5) minutes after hearing the Alert ECL. The PAC was fully activated by 0855.

The adequacy of facilities, equipment and displays to support emergency operations was demonstrated at the PAC. The PAC is located with the Joint Media Center at 1131 Kansas Avenue off of Highway 1 between San Luis Obispo and Morro Bay. The PAC had adequate furnishings and space. While it is an improvement from the Cuesta College campus, space is still limited. There was sufficient equipment including fourteen telephones, a tone alert monitor to hear EAS broadcasts and alerts, a copier, fax and computer was available for use in the PIO office next door. Upon the request of the PIO, PG&E would provide a generator for backup power.

Each telephone operator had access to a status board, which, overall, was promptly updated, a map of the area, EPZ maps and information binders. At 1000 the PAC was notified of a General

Emergency after receiving a copy of EAS Message #1, but the status board was not updated with the information until 1125. However, the operators were immediately given a copy of the EAS message and callers were made aware of the situation.

At 1224 a copy of EAS Message #3 regarding the release of radioactive material to the environment was provided to the PAC. Again, a copy was immediately given to the operators for their information and use, however, the status board never captured this information.

The PAC Supervisor demonstrated the capability to direct and control the PAC operations and staff, which included five telephone operators and one person to maintain the situation display board, who also acted as the backup supervisor. The Supervisor provided frequent briefings to the telephone operators and ensured they had the most up-to-date information available to give callers. She clarified the nature of the PAC mission, and cautioned the operators not to speculate or give out information that was not provided from official county sources and to provide her with rumor trends.

The PAC demonstrated the ability to communicate with all appropriate locations and organizations. There were fourteen telephone lines on a rotary system, which were operational. Operators for the exercise staffed five of these lines, and one line was for the use of the Supervisor. All the equipment functioned during the exercise. All operators made a station change every half-hour so that the workload was evenly divided.

The PAC demonstrated the capability to establish and operate rumor control in a coordinated and timely manner with one supervisor, five telephone operators, and one person to maintain the situation display board. Simulated calls from the public began at 0910 and ended at 1447. According to the extent-of-play, each PAC operator would receive at least six messages per hour or 12 messages during a period of two hours. There were a total of 385 calls from the public during the exercise. During the 1230-1430 window, 120 calls were received which averaged over 8 calls per hour per operator. The PAC telephone number was publicized in news releases, EAS messages, and during press briefings.

The PAC demonstrated the capability to provide prompt, accurate, consistent, and responsive information to callers. No incorrect responses were noted. The PAC log sheets were immediately updated after calls were completed and were used by the PAC supervisor to spot rumors and trends. It is suggested that rumors and trends be tracked by noting them on a board or chart. Operators can then collectively note possible trends and the Supervisor can more easily spot rumors.

The PAC telephone operators and the Supervisor identified eight rumor trends. A "Rumor/Misinformation Log" was maintained with the date and time to the PIO and the PIO action taken. The PAC Supervisor reported each of these trends to the PIO liaison in the PIO room. The liaison called the EOC to check on these rumors. When he determined the accuracy of

these trends from the EOC, reported back to the PAC supervisor so that the telephone team could give callers accurate responses to similar calls.

Rumor trend #1 was regarding the evacuation of Arroyo Grande, Avila Beach, and San Luis Obispo. At 0920 the rumor was given to the PIO staff to verify and at 0929 the PIO reported that no evacuation had been ordered.

Rumor trend #2 was people at Los Osos Von's telling people to evacuate Montana De Oro and Los Osos. At 0935 the rumor was given to the PIO staff to verify. At 0945 the PIO advised that a notice to evacuate Montana De Oro would be issued shortly and no evacuation had been ordered for Los Osos.

Rumor trend #3 was regarding that milk was radioactive. At 0955 the rumor was given to the PIO staff to verify and at 1008 the PIO reported that there was not release of radiation.

Rumor trend #4 was regarding the evacuation of Sunset Palisades. At 1032 the rumor was given to the PIO to verify and at 1040 the PIO reported that no evacuation had been ordered.

Rumor trend #5 was that radioactive particles were in the air at Pismo Beach. At 1040 the rumor was given to the PIO to verify and at 1105 the PIO reported there has been no radioactive release.

Rumor trend #6 was regarding the evacuation of Grover Beach. At 1120 the rumor was given to the PIO to verify and at 1126 the PIO reported that no evacuation had been ordered.

Rumor trend #7 was identified as Plutonium was spewing from Diablo Canyon Power Plant. The rumor trend was given to the PIO staff at 1315 to verify and at 1412 the PIO staff verified that the rumor was false.

Rumor trend #8 was regarding the closure of Highway 101. The rumor trend was given to the PIO staff at 1350 and 1408 to verify. At 1350 and 1413 the PIO verified that Highway 101 was not closed.

Overall, the telephone team was efficient, professional, and calming to the callers. Any vital questions that could not be immediately answered were noted and the PAC operator later telephoned the caller with the answer.

Areas Requiring Corrective Action

None

Prior Areas Requiring Corrective Action – Corrected

None

Prior Areas Requiring Corrective Action – Uncorrected

None

o ENGINEERING DEPARTMENT OPERATIONS CENTER

There were seven objectives established for demonstration, observation and evaluation at the County Engineering Department Operations Center, (Objectives Numbers 1, 2, 3, 4, 5, 14 and 15). Six objectives were met. Because of organization changes, Objective 15 is no longer applicable to this location and was not demonstrated. There are no uncorrected ARCAs from previous exercises.

The capability to alert and mobilize Engineering Department Operations Center (EDOC) was satisfactorily demonstrated. The EDOC is located in the County Engineering offices of the San Luis Obispo Courthouse. EDOC activation began at 0818 when the Deputy County Engineer was notified that an Alert ECL had been declared at DCPD. The EDOC fully activates at the Alert ECL. EDOC staff members had not been pre-staged for the exercise. The Deputy County Engineer, in turn, contacted the on-duty Squad Leader by cellular telephone. The Squad Leader arrived at the EDOC at 0826, assumed the EDOC leadership role, and continued notification of County Engineering personnel using telephones, cellular telephones, and pagers. A current roster of County Engineering personnel is included as Attachment 1 to the County Engineer SOPs. The SLOCEOC contacted the EDOC Squad Leader at 0846 to test communications and verify that the EDOC was operational. The EDOC was fully staffed at 0900 when the Assistant Squad Leader and one squad team member who assumed responsibility for emergency worker exposure control arrived.

Adequate facilities, equipment, displays, and work environment for operation of the EDOC were demonstrated. The EDOC is located in one of the County Engineering conference rooms. This conference room is well lit and adequately ventilated. Restrooms are located nearby. Co-located offices and a secretarial pool provide ready access to office and communications equipment.

A department receptionist was available to control access to the EDOC if needed. Current emergency plans and procedures were readily available. A large white board served as an ad hoc status board. Information displayed on the white board included ECLs, weather information, plant data, significant events, and the status of protective actions. This information was logically arranged and updated in a timely manner. Maps available in the EDOC displayed the PAZs, county roads, TCPs, and congregate care centers. These resources were fully adequate to support all EDOC operations.

The EDOC Squad Leader satisfactorily demonstrated direction and control. Two EDOC staff members supported the Squad Leader. The Squad Leader appropriately delegated routine tasks

such as communications and emergency worker exposure control to these staff members. By delegating routine work, the Squad Leader was free to provide frequent briefings, give direction when needed, resolve differences of opinion, and direct communications with other agencies such as the South Bay Fire Department (SBFD). Following the Squad Leader's example, all the EDOC staff consistently used their standard operating procedures and checklists to assure that all required tasks were completed and all necessary documents generated and retained. Under the Squad Leader guidance and direction, the EDOC completed all necessary tasks in an efficient and timely manner.

The capability to communicate with all appropriate emergency responders and agencies was satisfactorily demonstrated by the EDOC. The EDOC is located in a County Engineering department conference room. Co-located offices and a secretarial pool provide ready access to facsimile machines, computers Internet access, and telephones. The EDOC is provided with 3 commercial telephone lines. During the exercise two of the three telephone lines did not work. The inoperable telephone lines were replaced by cellular telephones with no adverse impact on EDOC operations. A radio system that is routinely used for County Engineering communications was also available nearby.

During this exercise, the EDOC relied on cellular telephones and commercial telephones to communicate with the department's section yards and the County Emergency Operations Center. The EDOC also contacted various department personnel and other agencies such as the South Bay Fire Department. All communications necessary to support EDOC operations were completed in a timely manner.

Staff at the EDOC satisfactorily demonstrated emergency worker exposure control. The EDOC is located in a County Engineering department conference room approximately 15 miles from DCP. Due to limitations in the exercise play, emergency worker exposure control for emergency workers dispatched from the department's Section Yards was not demonstrated.

Several spare emergency worker kits are stored at the EDOC. One EDOC staff member assumed the responsibility for emergency worker exposure control. He began by inventorying the spare emergency worker kits and preparing them for issue if needed. Each kit consisted of a small plastic bag containing a dosimeter charger, a 0 to 200 mR (low range) DRD, a 0 to 20 R (high range) DRD, one vial of KI with expiration date of 09/2000, KI instructions, a thermoluminescent dosimeter (TLD), high and low range exposure record cards, and checklist EWEC-3. These emergency worker kit contents were consistent with the guidance provided in Standard Operating Procedure III.06 HP-11. Documents describing the methods used to perform DRD leak tests were not provided for review.

Prior to issue, all DRDs were zeroed using the supplied dosimeter charger and all emergency workers briefed as indicated in the Emergency Worker Exposure Control Checklist. The briefing included directions for wearing dosimetry and the appropriate information and cautions for administering KI. Each EDOC staff member was issued a TLD. The TLD number and

emergency worker personal information were recorded on the Personnel Roster/ Exposure Log. As allowed by procedure, only one low-range and one high-range DRD were used as indicators of radiation levels in the EDOC. EDOC personnel correctly described the application of the 1.25 rem emergency worker exposure limit, and also correctly described the process for requesting authorization from the Department of Health for emergency exposures excess of the 1.25 rem limit.

Beginning and ending dosimeter readings were recorded on the forms provided. Additionally, the staff members were advised to read their dosimeters at one-hour intervals. Completed forms and dosimetry are to be returned to the EWEC at the end of the mission.

The capability to implement KI protective actions for emergency workers was demonstrated at the EDOC. Emergency worker kits stored at the EDOC included a bottle of KI tablets and the appropriate KI instruction forms. The KI bottles were visually inspected. Labels affixed to the bottles indicated an expiration date of 9/2000. EDOC staff members were briefed on the reasons why KI might be required, the potential adverse effects associated with ingesting KI, KI dose units, and directions not to take the KI until ordered to do so by the Department of Health.

At 1301, the KI PAD was ordered for emergency workers in PAZs 1,2 & 3. EDOC personnel simulated using the radio to notify County Engineering personnel of the KI PAD. At 1328, the EDOC was notified through an unofficial channel to implement a second KI PAD for PAZ 6 and 7. This PAD was also simulated to be passed on to department personnel in the field; however, the unofficial PAD was later withdrawn. EDOC personnel were cautioned not to take a second KI table in case the KI PAD were to be officially issued for PAZs 6 and 7.

Because of organization changes, capability and resources necessary to implement appropriate protective actions for special populations (Objective #15) is no longer an applicable Objective at the EDOC.

Areas Requiring Corrective Action

None

Prior Areas Requiring Corrective Action – Corrected

None

Prior Areas Requiring Corrective Action – Uncorrected

None

o COUNTY OFFICE OF EDUCATION

There were five objectives established for demonstration, observation, and evaluation at the County Office of Education (Objective Numbers 1, 2, 3, 4 and 16). All objectives were met. There are no uncorrected ARCAs from previous exercises.

The COE demonstrated the capability to mobilize personnel and activate facilities for emergency operations during the course of the exercise. When the exercise began it was a normal workday at COE. Relevant personnel were, therefore, working at their duty stations when the call with the Alert ECL came at 0815. The Deputy Superintendent and the Operations Director embarked immediately to the SLOCEOC. The telephone team supervisor gathered the telephone team in the COE main office response center by 0825; all team members were already in the building at work engaged in their normal daily activities. The personnel roster in the SOP was accurate and up-to-date. Mobilization of personnel and activation of facilities were consistent with the SOP and extent-of-play agreement.

The COE demonstrated the adequacy of facilities, equipment, displays and other materials during the exercise. The operations site for COE is their main office building on Highway 1, Rancho El Chorro. The building had adequate space, furnishings, lighting, restrooms, ventilation and backup power. The operations center was located in a conference room off of the Director's Office. The room itself had one regular telephone line and one brown phone. The main floor consists of a large open area with desks, phones, copiers and other office equipment for program managers and support staff. The Telephone Team used some of the many nearby desks outside the room to perform their calling operations. The restrooms were large and well maintained in a manner consistent with a large office building. The facility does have backup power generation capability. The furnishings are adequate. The lighting is excellent. The building is scheduled for a major remodeling and refurbishing, thus improving already more than adequate facilities.

There was adequate equipment to support emergency operations. The operations center is located in a large office, and has access to numerous quantities of telephones, typewriters, computers, copiers and facsimile machines.

The wall displays were minimal but adequate for the limited mission of COE, which is to inform public school districts and private schools within the PAZ for ECLs and public PADs. The operations center has a PAZ map with the names of public and private schools superimposed on the map by location. Wind direction and speed were also indicated on the PAZ map. In addition, there is a chart of all schools, by north and south and by school district, with slots to note the time the school was closed, the time the students were evacuated and the time when the students were delivered to the reception center, as well as the location of the reception center. There was a log, listing of all major communications with the EOC, in particular ECLs and PADs.

Access to the facility is controlled routinely, with all unknown persons needing to sign in and identify themselves. As this is not a high-risk facility, access control was adequate.

SOPs were available to all participants. They contained all relevant information concerning school districts, Points-of-contact, phone numbers, checklists, procedures and pre-scripted messages; the plans were followed in all important respects. Facilities, equipment and displays were consistent with the SOP and extent-of-play agreement.

The COE demonstrated the ability to direct and control emergency operations during the exercise. Leadership was demonstrated at multiple locations with effectiveness, flexibility and knowledge of plans and procedures. The Deputy Superintendent and the operations officer dispatched to the EOC immediately upon notification of an alert. The schools are kept informed about plant conditions and emergency decisions through the work of the telephone team operating at the COE office. The Superintendent left the facility to relieve his deputy at the SLOCEOC at approximately 1215 hours.

EOC staff called ten times during the exercise to provide the telephone team leader with situation updates and protective action information. The team leader followed up each phone call with a staff meeting to relay information about ECLs and public PADs. Notification and evacuation decisions for schools were generally well ahead of public PADs issued by the SLOCEOC. There were six phone callers, who each had an area of responsibility as designated in the plan. Not everyone had an equal number of calls, depending on the situation, and they would help each other to keep notification times under 30 minutes for all schools in affected locations. The change in wind direction caused the telephone team to notify and evacuate nearly every school in the PAZ. With the team structured as it was, this was accomplished with little difficulty or added strain.

The team leader had meetings, in addition to those caused by communications with the SLOCEOC. She briefed the team on changes to the plan, adjusted assignments to meet conditions, and asked the team to review sections of the SOP in advance of the possible need. COE direction and control activities were carried out in accordance with the SOP and the extent-of-play agreement.

The COE demonstrated the ability to communicate with all appropriate locations and organizations. The communications needs for this operation are relatively simple, yet multiple redundant communications were demonstrated in accordance with the plan. SLOCEOC staff communicated with the COE using the SLOCEOC dedicated brown telephone landline. The Director of Operations is co-located at the SLOCEOC with the Superintendent. The telephone team used landline telephones in the immediate office area outside the response room to notify schools.

Several FAX machines were available for receiving copies of important communications from the EOC. For the second exercise in a row, the FAX at the EOC did not appear to work. The FAX at COE does work. COE staff verified their FAX numbers several times to EOC staff; the EOC FAX showed a successful transmission, yet no Faxes were received.

RACES personnel arrived at 0850. They used equipment located permanently on-site at the COE main office. They did an excellent job of providing redundant information concerning ECLs and public PADs. COE communications activities were carried out in accordance with the SOP and the extent-of-play agreement.

COE demonstrated the capability to implementation of protective actions for school children within the PAZ. The COE main office had a limited role in implementing PADs during the exercise. The telephone team relays information received from EOC staff to school superintendents and private school principals. This means they perform initial notification and provide continuing information to schools within the PAZ. PADs are at the call of school superintendents and private school principals. Transportation arrangements are made at the EOC. The telephone team merely passes through information about decisions made by other authorities. The COE telephone team school PAD activities were in accordance with the SOP and extent-of-play.

Areas Requiring Corrective Action

None

Prior Areas Requiring Corrective Action – Corrected

None

Prior Areas Requiring Corrective Action – Uncorrected

None

o COUNTY HEALTH AGENCY DEPARTMENT OPERATIONS CENTER

There were five objectives established for demonstration, observation, and evaluation at the County Health Agency Department Operations Center (CHADOC) (Objective Numbers 1, 2, 3, 4, and 15). All objectives were met. There are no uncorrected ARCAs from previous exercises.

The CHADOC demonstrated a capability to alert and fully mobilize its staff for its operation as well as significant field activities. All activities were carried out efficiently. Documentation of CHADOC staff and field workers assigned to Radiological Monitoring/Decontamination at Camp Roberts and El Chorro Park was thorough. The County Health Agency Director received notification of the Alert ECL at 0825 from the SI OCEOC. The director promptly notified the deputy director to assume the role of CHADOC director and then departed for his own EOC County Health Officer assignment. The CHADOC director used the current roster to alert and

mobilize three (Mental Health, Public Health and Home Health Care) supervisors. The CHADOC was declared activated at 0945. The staff worked from their own offices inside the building and across the street and reported back by phone and personally frequently to provide and receive briefings with the CHADOC director. The CHO advised the CHADOC director of the SAE ECL at 1004 and the General Emergency (GE) ECL at 1045.

The CHADOC fully demonstrated the adequacy of facilities, displays, equipment, supplies and other materials to support emergency operations. The CHADOC was located in a small 10'x10' conference room adjoining the agency director's office. Utilities provided for a comfortable arrangement for up to 6-8 staff and a maximum of six was present. Equipment was immediately available within the director's suite of offices. Of particular value was a reproducible electronic white display board that captured key events and activities. The only drawback was that the weather data was on two occasions updated only after 30+ minutes, but otherwise all displayed information was kept accurate. A conference bridge telephone as well as a separate line were available on the conference table itself, with dozens of phones available within a few yards. CHADOC staff kept close records of activities within their own SOP books and the CHADOC director also kept records on key items such as KI inventory. By extent-of-play agreement, the facility was not required to provide special security, because it is open to the public.

The capability to direct and control emergency operations was demonstrated. The CHADOC demonstrated capability for comprehensive direction and control in an outstanding manner. The director, a long-time emergency management professional, at every moment had full control of a highly professional and responsive staff. Duties ranged from mental health crisis counseling support to evacuees and emergency workers as well as providing very technical radiological monitoring and decontamination services at two locations as well as coordinating notification and technical support to five (5) home health care providers and institutionalized persons in convalescent care facilities. The director conducted at least hourly all-staff briefings as well as continuous mentoring and training throughout the exercise. The director successfully delegated work to the three highly skilled and motivated supervisors and personally updated the display board. The director and staff both demonstrated initiative to anticipate requests from the SLOCEOC and often had answers/resources identified before a request was made. The only drawback was the lack of initiative displayed to quickly verify ECLs with verification taking place within 30, 27 and 16 minutes, respectively for the Alert, SAE and GE ECLs. The CHADOC also accepted without verification a back-channel report from the SLOCEOC Medical Liaison at 1325 that a PAD had been made to issue KI to emergency workers in PAZs 6 & 7, while the SLOCEOC confirmed that no such PAD had ever officially been made.

The capability to communicate with all appropriate facilities was demonstrated. The CHADOC demonstrated adequate communications hardware to reach the SLOCEOC, its agency field staff and a group of private providers. By extent-of-play agreement, the director simulated the activation of ARES amateur radio support and the tone alert radio system was not used. The only drawback was that only one (1) incoming fax message received and none sent, with all communications and reports being handwritten, typed or captured by the reproducible display

board. The CHADOC staff all showed capability to use the equipment to communicate quickly and accurately with outside entities.

The capability to implement protective actions for special populations was demonstrated. The Home Health Care supervisor (and a designated second-shift backup) ably demonstrated that they could notify, provide technical support and anticipate potential protective actions for special populations. Detailed seven-page documentation was provided to indicate the high quality and quantity of contacts made with five (5) home health care providers and convalescent facilities. Emergency information was provided mainly by the EAS and actual telephone calls made by CHADOC staff. The CHADOC staff utilized extensive rosters and listings available within SOP's and quickly determined that all the affected persons had available transportation in the event that evacuation might be needed. The scenario drove a high degree of advance and contingency planning by CHADOC staff, who demonstrated capability to deal with worst-case situations, which did not actually materialize during the exercise. The methods used included locating caseload by zip codes within potentially affected PAZ's, having outside providers use a triage priority system to identify needs and apply any necessary resources, such as evacuation transportation. The CHADOC staff demonstrated care and concern for the most vulnerable persons in every way and deserve great credit.

Areas Requiring Corrective Action

None

Prior Areas Requiring Corrective Action – Corrected

None

Prior Areas Requiring Corrective Action – Uncorrected

None

o AVILA VALLEY FIRE STATION # 13

There were eight objectives established for demonstration, observation, and evaluation at the Avila Valley Fire Station (Objective Numbers 1, 2, 3, 4, 5, 10 14 and 15). All the objectives were met. There are no uncorrected ARCAs from previous exercises.

The Avila Valley Fire Station (AVFS) demonstrated the ability to alert and fully mobilize staff. An Alert ECL was declared at the DCPD at 0750 and a SAE ECL declared at 0959. Notification of both ECL's was received at the AVFS at 1026. The GE ECL was declared at 1040 and received at the AVFS at 1052. AVFS is a 24-hour operation and has 2 staff members on-duty at all times. Additional volunteer personnel are mobilized as needed.

The County Fire Emergency Command Center is the communication pathway for AVFS, including notification of ECLs. The AVFS staff was notified of ECL declarations via commercial telephone by the County Fire Emergency Command Center. Station 13 would have heard the initial notification on a local fire net if that net had been available for use. However, concurrent with the start of the exercise, that net was being used to handle a medical aid call. The dispatcher made a decision not to confuse the real event with the exercise message and did not send the initial message out over the local fire net. Station 13 would have received the initial exercise message had this frequency been available. Mobilization of the AVFS was in accordance with plans and procedures and per the extent-of-play agreement.

The AVFS demonstrated the adequacy of its facility, equipment, displays and other materials to support emergency operations. There were appropriate space, furnishings, lighting, restroom, ventilation, and other equipment. Equipment included telephones, radios, computer, copier, typewriters, and facsimile machine. Backup power was available.

Maps and displays in the AVFS were adequate and updated in a timely manner. Maps and displays included: plume pathway EPZ sectors, evacuation routes, reception centers, ECLs, weather information, and traffic access control points. A status board was available and used to post current information reflecting significant changes. All activities described in this objective were demonstrated in accordance with the plan and procedures.

The AVFS demonstrated the capability to direct and control emergency operations. The AVFS on-duty captain was effectively in charge of the emergency response at the AVFS. The Captain demonstrated knowledge of emergency operations, requirements, and procedures by issuing instructions to the staff and implementing any necessary actions upon receiving PADs. The Captain conducted periodic briefings. Individual activity logs were maintained. Staff were involved in the decision making process when appropriate, with the Captain retaining leadership in the decision making process. AVFS staff followed plans and procedures in the implementation of these activities.

The ability to communicate with appropriate emergency personnel was adequately demonstrated by the AVFS. Communication systems were available, operated properly, and communication links were established with the County Fire Emergency Command Center and SLOCEOC EWEC desk.

Commercial telephone is the primary communication method for the AVFS. Numerous commercial telephone lines and a radio system provide backup capability. There were no delays caused by malfunctions or breakdowns in AVFS communication equipment. Incoming and outgoing communications were appropriately logged and communicated to the AVFS staff for action or information. All activities described in this objective were demonstrated in accordance with the plan and procedures.

AVFS staff demonstrated the capability to continuously control radiation exposure to emergency workers. Dosimetry, exposure forms, and KI for AVFS staff were issued at the AVFS. The dosimetry included one low-range DRD with a 0-200 mR range, one high-range DRD with a range of 0-20 R, and one TLD. The DRDs were zeroed using a dosimeter charger.

Initial readings and serial numbers were recorded on the Personnel Roster/Exposure Log. AVFS personnel were instructed to read their DRDs at one-hour intervals and record their readings on their individual exposure forms. Upon termination of their shifts AVFS personnel were instructed to return their dosimetry to the AVFS staff member coordinating exposure control activities. The dosimetry and records would then be forwarded to the EWEC Desk.

Emergency workers were briefed on their exposure limits and were instructed to notify the coordinator if dosimeter readings approach 250 mR, 500 mR, 750 mR, and 1000 mR. The total mission exposure limit was 1.25 R. There was some confusion as to whether EWEC information should be relayed to the AVFS directly from the EWEC Desk or via the County Fire Department Emergency Command Center (ECC). The Captain in charge at AVFS determined that EWEC information would be coordinated through the County Fire Department ECC. This decision was discussed with both the EWEC Desk and the County Fire Department ECC.

AVFS staff demonstrated the capability to promptly alert and notify the public within the 10-mile plume EPZ and disseminate instructional messages to the public on the basis of decisions by appropriate State and local officials.

The County EOC recommended a precautionary closure of Avila Beach at the Alert ECL. The AVFS is responsible for coordinating the precautionary closure of Avila Beach at the Alert ECL. However, the AVFS did not receive notification of the Alert ECL until 1026. The precautionary closure of Avila Beach was reported complete at 0950, prior to AVFS notification of the Alert ECL. The delay in notification of the Alert ECL would prevent AVFS personnel from performing beach closure in a timely manner.

In discussion with the AVFS staff they indicated upon notification of the Alert ECL AVFS personnel would be dispatched to Avila Beach where they would coordinate beach closure activities to include alerting and notifying the public.

In addition, the AVFS is also responsible for providing backup route-alerting in Zone 3 in the event of a siren failure. Upon notification of a siren failure in AVFS personnel would locate that siren on the available maps and drive to the affected area and provide notification to the public. AVFS staff would notify the public by reading pre-scripted messages over vehicle public address systems or bullhorns. Upon completion of activities AVFS personnel in the field would report results back to the AVFS. AVFS would then in turn notify the County Fire Emergency Command Center.

AVFS staff demonstrated the capability to implement KI protective actions for emergency workers. This capability was demonstrated through briefings and interviews. KI was issued with the dosimetry. Instructions on the purpose for taking KI, dosage rates and time, and possible side effects were provided to emergency workers. Emergency workers were told not to take the KI until instructed. Additional instructions given included who authorizes the use of KI. The available KI supply was within the expiration date of 09/00.

The AVFS received the order for KI administration for emergency workers in protective action zones 1, 2, and 3 at 1306 hours. AVFS personnel simulated taking KI. Personnel stated they would verify they had taken KI by communicating such to their EWEC Coordinator in the AVFS. The AVFS EWEC Coordinator would then communicate that information to the County Fire ECC. AVFS personnel followed plans and procedures in the implementation of these activities.

The AVFS demonstrated the capability and resources necessary to implement appropriate protective actions for special populations through simulation and interviews. Transportation needs were discussed and transportation resources identified. At 1240, AVFS personnel requested resources from the EDOC for transportation of individuals who had been in the area on bicycles and had congregated at the AVFS. The EDOC agreed to simulate dispatch of transportation for pickup of the bicyclists at the AVFS. All activities described in this objective were demonstrated in accordance with the plan and procedures.

Areas Requiring Corrective Action

None

Prior Areas Requiring Corrective Action – Corrected

None

Prior Areas Requiring Corrective Action – Uncorrected

None

o FIELD MONITORING TEAMS

There were seven objectives selected for demonstration, observation, and evaluation by three FMTs, identified as Alpha, Bravo, and Charlie (Objective Numbers 1, 3, 4, 5, 6, 8, and 14). Objective Number 2 had been scheduled for demonstration but was deemed not applicable to field monitoring teams. Six objectives were met. One ARCA was identified for one objective for FMT-Charlie. Two ARCAs from previous exercises were corrected. There are no uncorrected ARCAs from previous exercises.

The FMTs demonstrated the capability to alert and mobilize staff for the emergency facilities and field operations, and to activate and staff emergency operations. Three Field Monitoring Teams were activated for this exercise. There were four persons per team. Each team had two Environmental Health Specialists (EHS) from the San Luis Obispo County Health Department and two Radiation Protection Technicians (RPT) from DCP.

At 0817 hours the County OES telephoned the Director of Environmental Health (DEH) at the County Health Department and informed him that an Alert ECL had been declared at 0756 hours at the DCP. At 0820 hours, the DEH initiated the process of alerting the EHS by verbal notification of personnel within the building and telephoned those in Atascadero and Grover Beach and instructed them to report to the Health Department before going to the PG&E OEL. At 0827 hours, all EHS personnel had been alerted including those from Atascadero and Grover Beach. The EHS personnel arrived at the OEL at 0850 hours and those from Atascadero and Grover Beach arrived at 0920 hours.

The PG&E RPT were notified at the Alert ECL and instructed to report to the OEL. They arrived at the OEL by 0830 hours, which corrected ARCA #19-98-01-A-4.

The capability to direct and control emergency operations was demonstrated by the field teams. Each of the three FMTs was composed of two personnel from the San Luis Obispo County Health Department, Environmental Health Division and two PG&E personnel from DCP. The integrated FMTs were provided effective, timely, and appropriate command and control by the RMD located in the UDAC. All activities described in the demonstration criteria for this objective were carried out in accordance with the plan and the extent-of-play agreement.

The capability to communicate with all appropriate emergency staff was demonstrated by the three FMTs. The County personnel were in one vehicle with their communications equipment and the PG&E personnel were in another vehicle with their communications equipment. The primary system in each vehicle was a radio. The backup systems were a hand-held radio and a cellular telephone. All systems were checked out and were operating. There was some difficulty with the frequencies and at times the radio traffic was garbled. Eventually a usable radio channel was selected and the radios were operable. There were geographic areas where a FMT would be in a communications dead zone and the FMT could not communicate with the RMD at the UDAC. This situation was recognized and the FMT would relocate to another location out of the dead zone. In spite of this, there were no information transmission delays and the switching of radio channels and use of cellular telephones did not affect the FMT's ability to carry out their essential functions.

FMTs demonstrated the capability to continuously monitor and control radiation exposure to emergency workers. All FMT members assemble at the PG&E Service Center where they inventory their equipment and ensure they have the required dosimetry. The EHS have their own personal dosimetry and the DCP RPTs are issued dosimetry at the Service Center. All DCP

RPT team members sign a form identifying the serial number of the issued TLD and a check mark showing they were issued a low and a high-range DRD. The EHS members sign the form that indicates they have their own personal TLD and DRDs.

Each PG&E RPT was issued a 0-200 mR Stevens DRD and a 0-5 R Dosimeter Corporation 611 DRD. The DRDs were initially charged and the RPTs are not issued an Exposure Record Form to record the initial readings. The RMD maintains exposure records for the PG&E RPTs. The DRDs are due for calibration on 7-28-2000 and the calibration records are available at the DCPD.

The EHS staff arrived at the Service Center with their own 0-200 mR CDV-138 DRD and a 0-20 R CDV-730 DRD. The DRDs were charged and the initial readings recorded on their Field Exposure Logs. There were no calibration or electrical leakage records available for review for the CDV DRDs.

During the exercise all FMT members read their DRDs at hourly intervals until they were in a radiation field and then read their DRDs at approximately 30-minute intervals. The PG&E RPTs reported their readings to the RMD at the UDAC where a record is made of the individual's exposure. The EHS staff also reported their readings to the RMD in addition to recording the exposure on their Field Exposure Log. The recording of the exposures corrected ARCA #19-96-5-A-22. All team members knew their turn-back value of 500 mR/hr. The EHS staff knew their exposure limit of 1.25 rem; however, the PG&E RPTs were not sure if their mission limit was 4.5 rem or 4.7 rem or 5 rem.

Following the exercise the PG&E RPTs would go to the PG&E Community Center for Emergency Worker decontamination. This is also where they would turn in their dosimetry. The EHS staff would go to the El Chorro Regional Park for decontamination and to turn in their dosimetry.

The FMTs demonstrated the appropriate use of equipment and procedures for determining field radiation measurements. Each was composed of two personnel from the San Luis Obispo County Health Department, EHS and two PG&E personnel from DCPD. Each organization drove their own monitoring vehicles and were equipped with identical radiological monitoring instrumentation. The low-range survey instruments were the Eberline Model E140N with an HP-210 pancake probe with a range of 0 to 50,000 counts per minute (cpm). The high-range instruments were the Eberline model ASP-1 with an HP-270 probe with a maximum range of 250 roentgens per hour (R/hr). The monitoring kits also contained sampling equipment and personnel protective clothing. FMT-Alpha demonstrated the donning and doffing of their protective clothing in accordance with the extent-of-play agreement and their plans and procedures.

Demonstration of Objective #6 - FMT Alpha

FMT-Alpha (FMT-A) performed calibration and source checks and performed operational checks prior to deployment. All survey meters were operational and within calibration.

FMT-A was briefed on plant conditions prior to deployment, and again each time they were deployed to a new location. These briefings included weather and which survey procedures to perform, and included exposure control and KI procedures as required by the RMD.

FMT-A was deployed to location E-11, See Canyon at Davis Canyon Road, at 1016, where exposure rate and background counts were measured. No other sampling was performed, by direction of the RMD. When plant conditions changed, FMT-A was briefed at 1047 on weather, plant conditions, GE ECL at 1046, and they reported their DRD readings. Other briefings were received by radio at 1105 and 1139. FMT-A was deployed to ESE-13 (Pirate's Cove) at 1158.

At 1209, collection of an initial air sample was started at ESE-13. Sample collection was completed at 1239. The briefing for the ESE-13 location directed the collection of a second air sample when an increase in radiation exposure levels was observed. The PG&E members said that an increased exposure rate would be an anticipated 15 mR/hr.

Ambient conditions were background at 1308. At 1309, ambient conditions changed when the E-140/N was heard, and read 4000 cpm and increasing. Also at 1309, collection of an air sample was started using the PG&E air sampler. At 1311, the ASP-1 was reading 4 mR/hr and the E-140/N was reading 12,000 cpm. At 1329 the ASP-1 read 24 mR/hr with the E-140/N reading 50,000 cpm. FMT-A radioed the RMD at 1329 to request stopping the air sample, which was more than 10 ft³. The air sample was stopped at 1330 with 23.1 ft³ collected, and FMT-A proceeded to the Service Center.

Throughout the air sample, FMT-A continued to measure ambient conditions with the passenger door open, and the probes facing up. PG&E procedures do not require that these probes to be bagged, and they became contaminated. The E-140/N read a background of 200 cpm after that, which was used for sample measurements at the service center. The county equipment was uncontaminated, having had plastic bags changed after exiting the plume, but were not used.

In addition to ambient radiation monitoring, FMT-A collected a vegetation sample after returning to the Service Center at the end of play. This sample was taken in accordance with County SOPs, using a folding rule to mark a 3 ft x 3 ft surface. Vegetation was sampled to about one inch above ground.

Demonstration of Objective #6 - FMT Bravo

Field Monitoring Team Bravo (FMT-B) had a complete equipment inventory list available and used it to verify that the identified instrumentation, equipment, and supplies were present and operable prior to deployment. Spare batteries were available and battery checks were performed on all battery-powered instrumentation. In addition, relevant telephone numbers were verified and radio and cellular telephone operational checks were performed.

FMT-B verified the proper operational response of each survey instrument by measuring natural background and a radioactive check source. Each instrument was labeled with the appropriate range for a specific radioactive check source or this range was identified in the emergency environmental monitoring procedures. Also, each instrument was labeled with the date of the most recent calibration and the date calibration is due. These dates are:

<u>INSTRUMENT</u>	<u>CALIBRATION DATE</u>	<u>CALIBRATION DUE DATE</u>
Eberline E-140N with HP-210 pancake probe	2/25/00	2/25/01
Eberline ASP-1 with HP-270 probe	2/17/00	8/17/00
<u>PG&E</u>		
Eberline E-140N with HP-210 pancake probe	7/29/99	7/20/00
Eberline ASP-1 with HP-270 probe	2/28/00	8/28/00

All instrument calibration dates were within 12 months of the exercise date and the team instrument probes were covered in thin plastic. The PG&E team members do not cover their instrument probes.

The Eberline ASP-1 was also labeled with a statement that the instrument was not calibrated on the X0.1 scale. There is an error in the San Luis Obispo County Nuclear Power Plant Emergency Response Plan Standard Operating Procedure Emergency Environmental Monitoring (III.06 HP-3, April 2000) page 17 which states, "The "times one" (x1) scale is not calibrated."

Each monitoring vehicle was equipped with maps of the areas to be monitored and on these maps were pre-identified monitoring locations.

Prior to deployment, the FMTs were provided a briefing by the OEL Operator. This briefing included status of the emergency, meteorological information, communications and backup communications to be used, and other applicable information.

At 1017 hours, FMT-B was instructed to proceed to monitoring location E15. Upon arrival at 1030 hours a ground radiation measurement was acquired before exiting the vehicles. This measurement was background and was quickly reported to the RMD via the radio.

At location E15 radiological monitoring was continuously performed and at 1330 hours radioactivity above background was detected. In accordance with plans and procedures, presence

of the plume was determined by using their Eberline E140N with an HP-210 pancake probe. Radiation measurements were acquired at ground level. Also, measurements with the detector window facing up and facing down were acquired at approximately three feet above the ground. These measurements were promptly reported by radio to the RMD.

After plume passage, smear samples were collected from the roof of one of the monitoring vehicles and the horizontal surface of a near-by electrical transformer box.

Following their plans and procedures, an appropriate soil sample was collected by FMT-B.

Page 38, Section 2, No. 5 of the San Luis Obispo County Nuclear Power Plant Emergency Response Plan Standard Operating Procedure III.06 HP-11 (06/98), states, "Remember - 1000 milliRems are equal to 1 Rem (1 Rem = 1 Roentgen)." "1 rem = 1 roentgen" is not consistent with the USEPA *Manual of Protective Action Guides and Protective Actions for Nuclear Incidents* (1992) which states on page 7-11, "1 rem = 0.7 roentgen." In addition, in the San Luis Obispo County Nuclear Power Plant Emergency Response Plan Standard Operating Procedures there is a casual, inconsistent use of the terms roentgens, rems, exposure, and dose. Roentgens are units of exposure and rems are units of dose.

All activities described in the demonstration criteria for this objective were carried out in accordance with the plan, procedures, and the extent-of-play agreement by FMT-B.

Demonstration of Objective #6 - FMT Charlie

At 1019 hours, FMT Charlie was assigned to monitoring location ESE-18 and they arrived at 1031 hours. They had maps showing the sampling locations and the team members were knowledgeable about the area. They arrived at assigned locations without delay. The probes used by the EHS staff were not covered and are supposed to be covered in accordance with SOP III.06 HP-3. The probes used by PG&E RPT are not covered and are not required to be covered according to PG&E personnel. At the sampling or monitoring locations, the PG&E RPT made the measurements using both the exposure-rate meter and the count-rate meter. The Eberline E-140 with HP-210 pancake probe is held at waist level for two measurements. One measurement is with the probe pointed in the up direction and the other measurement at waist level is with the probe pointed in the down direction. The difference in the two measurements is an indication of the skyshine component of the count rate. The count-rate meter was also used to obtain count-rate measurements near ground level. The ASP-1 dose-rate meter was used to obtain general area dose rate readings at the sampling or monitoring location. Monitoring was performed at monitoring locations ESE-18 at 1032 hours, at ESE-24 at 1407 hours, and at ESE-23 at 1445 hours. The readings were logged in PG&E's Field Monitoring Data Sheets and the data were reported promptly by radio to the RMD at the UDAC.

At 1448 hours, FMT-C was directed to obtain a water sample at the Arroyo Grande High School and then report to the OEL with all samples. The one-liter water sample was collected at 1506

hours and properly labeled. FMT-C returned to the OEL at 1536 hours

The three off-site FMTs demonstrated the capability to use instruments, equipment, and procedures for the measurement of airborne radioiodine concentrations as low as 10^{-7} microcuries per cubic centimeter and measure the radioactivity of an airborne plume particulate sample.

Demonstration of Objective #8 - FMT Alpha

The two FMT-A Kits included one Radeco H809C air sampler with flow rate indication marks at 0.8, 0.9, 1.0, 1.1, 1.2 ft³ per minute (cfm). The survey vehicles' 12-volt batteries power these air samplers. The air sampler was equipped with a sample head for silver zeolite absorbent cartridges and particulate filter papers. One count rate instrument in the kit, the E-140/N with shielded thin-window HP-210 probe was used for both ambient monitoring and sample measurement. FMT-A also had access to the OEL, where samples were delivered after field measurements were completed (when directed by RMD).

All instruments performed satisfactorily after completion of operation checks, and were within calibration and source check response. Two air samples were taken by FMT-A, one started at 1209, per County SOP, arrival at Pirates' Cove monitoring location (ESE-13) at 1209. The sampling period was 30 minutes at a flow rate of 1.1 cfm.

At 1309, FMT-A PG&E members started collection of a second sample at ESE-13, when ambient radiation monitoring indicated an increase in count rate on the E-140/N being used by the PG&E members. Throughout the air sample collection, FMT-A monitored the ambient radiation levels. The E-140/N was on the passenger seat with the passenger door open. The ASP-1 was also on the passenger seat. Per their procedures, the PG&E instrument probes were both exposed with no plastic bag or other cover. The air samplers were set on the grill frame of their vehicle in the best position for stability. Flow rate was checked periodically during the samples, and remained nearly constant. A surface contamination smear sample was acquired from the vehicle roof, following County SOPs.

During the plume sampling, ambient radiation readings were increasing. Readings were 4000 cpm on the E-140/N with less than 0.2 mR/hr on the ASP-1 at 1309. Readings were 50,000 cpm on the E-140/N with 24 mR/hr on the ASP-1 at 1330. The air sample collection was terminated after 21 minutes with 23.1 cu. ft. The sampler was quickly put in the vehicle, and the sample head put in a bag for immediate departure from the plume. The cartridge and filter were removed and measured in a low background location after leaving the plume. Each was bagged and labeled after measurement, and each of the four labeled bags from the two air samples were delivered to the OEL at the Service Center/OEL in a large plastic bag at 1412.

Demonstration of Objective #8 - FMT Bravo

FMT Bravo (FMT-B) was composed of two personnel from the San Luis Obispo County Health Department, Environmental Health Division and two PG&E personnel from DCPD. Both organizations drove their own monitoring vehicles. To collect airborne radioiodine and particulate samples and to perform field radiation measurements of the airborne radioiodine and particulate radioactivity, each organization was equipped with the following:

- RADECO Air Sampler (Model H809DC) with flow rate indicator
- Silver zeolite cartridges
- Particulate filters
- Power cables to connect the air sampler to the monitoring vehicles battery
- Eberline E-140N instrument with a HP210 thin-window pancake-type probe and labeled cables

Per the plan and prior to deployment, each air sampler was connected to the monitoring vehicle's battery, proper flow rates were achieved, and operational capabilities were verified. Each Eberline E-140N instrument with a HP210 pancake probe was checked for proper operational response, including battery check and the proper response within a documented range when measuring a known radioactive check source.

The air samplers and Eberline E-140N instruments were labeled with the date of the last calibration and the date when calibration is due.

<u>EQUIPMENT</u>	<u>DATE CALIBRATED</u>	<u>CALIBRATION DUE DATE</u>
<u>County</u>		
RADECO Air Sampler	4/13/00	4/13/01
Eberline E-140N With HP-210 pancake probe	2/25/00	2/25/01
<u>PG&E</u>		
RADECO Air Sampler	4/13/00	4/13/01
Eberline E-140N With HP-210 pancake probe	7/29/99	7/20/00

The calibration dates are within 12 months of the exercise date.

At 1017 hours, FMT-B was instructed to proceed to monitoring location E15. Upon arrival at 1030 hours a background ground radiation measurement was acquired before exiting the vehicles. Radiological monitoring was continuously performed and at 1330 hours radioactivity above background was detected. In accordance with their plans and procedures, presence of the plume was identified.

The monitoring data and the presence of the plume were reported to the RMD at 1332 hours. At 1333 hours the RMD instructed FMT-B to collect airborne radioiodine and particulate samples. Sample collection was initiated at 1334 hours. The flow rate was 1.2 cubic feet per minute, the sample collection period was 11 minutes, and the total volume collected was 13.2 ft³. During sample collection, gamma exposure rate measurements were made.

Shortly after the completion of sample collection in the plume, monitoring data indicated that the plume had passed-by. The airborne radioiodine and particulate air samples were analyzed and the field measurements of the radioiodine concentrations and the gross beta-gamma activity on the particulate filter were calculated and promptly and accurately transmitted to the RMD. Following field analysis, the radioiodine cartridge and particulate filter samples were sealed in individual plastic bags and properly labeled. The samples were delivered to the OEL for additional analysis.

Demonstration of Objective #8 - FMT Charlie

The SAIC Radeco air pump used for sample collection by FMT-Charlie was calibrated on 4-12-2000 and is due for calibration on 4-12-2001. The air pump was checked for proper operation prior to departing the PG&E Service Shop. There were 30 Gy-130 silver zeolite cartridges available for use in a real event and the cartridges are sealed in a plastic packet with 10 to a packet. An E-140 rate meter with an HP-210 pancake probe was used to monitor the particulate pre-filter and the cartridge. The meter is due for calibration on 7-20-2000.

At 1336 hours, based on increasing ambient radiation levels, FMT-Charlie was instructed to collect an air sample at sampling location ESE-18. At 1340 hours, the collection of an air sample was started and at 1343 hours the sample collection at an average flow of 1 cfm was terminated resulting in a sample volume of 13 ft³. The pre-filter sample was inserted into an envelope and the envelope was correctly labeled. The cartridge was inserted into a plastic bag and the bag was correctly labeled.

At 1415 hours, the FMT was directed to proceed to location E-23 for counting the particulate pre-filter and the cartridge. The particulate filter was inserted in a metal fixture assuring constant geometry and monitored using the E-140 rate meter with the HP-210 pancake probe. The cartridge was also inserted in the metal fixture and monitored with the E-140 meter with the HP-210 pancake probe. The monitored readings were converted to concentrations and the concentration values were reported at 1432 hours to the RMD at the UDAC.

The sampling locations, sampling flow rates, sampling times, and the volumes of air sampled are as follows:

**TABLE 9
FMT SAMPLES**

FMT	LOCATION	FLOW RATE cfm	SAMPLING TIME (MIN.)	VOLUME ft ³
Alpha	ESE-13	1.1	21	23.1
Bravo	E-15	1.2	11	13.2
Charlie	ESE-18	1	13	13

The three off-site FMTs deployed for this exercise demonstrated the capability and resources to implement KI protective actions for emergency workers. The County personnel had a bottle of KI tablets with an expiration date of September 2000 and the PG&E personnel also had a bottle of KI tablets with an expiration date of September 2000. In addition there was a set of instructions on the use of and the consequences for taking KI.

At 1305 hours, the RMD at the UDAC informed all FMT personnel they were recommended to take KI. All four members of each FMT simulated taking KI and recorded the action on the KI ingestion form.

Areas Requiring Corrective Action

19-00-6-A-5. Probes not covered by FMT-Charlie

NUREG-0654 Reference I.7,8,11.

Objective #6
Demonstration Criterion #4

1. **Description:** The San Luis Obispo County Environmental Health Specialists did not cover the probes of the hand-held instruments as required in SOP III.06 HP-3, Checklist 3 - MONITORING INSTRUMENT PERFORMANCE TESTING.
2. **Recommendation:** All team members should review their procedures to ensure they have satisfied all requirements before participating in field activities.
3. **Corrective Action:** The FMT has already been made aware of this issue and has been advised to follow the County procedure. In addition, the annual FMT Training will emphasize the County FMT member are to cover their radiological instrument probes in accordance with SOP III.06, HP-3. The annual training will be completed by July 1, 2001.

Prior Areas Requiring Corrective Action – Corrected

19-98-1-A-4.

NUREG-0654 Reference: D.3.,4.; E.2

Objective #1
Demonstration Criterion #1

1. **Description:** The PG&E members of the three unified FMTs did not mobilize in a timely manner. The Alert ECL occurred at 0806 and the PG&E FMT members did not arrive at the OEL FMT dispatch point until 1050.
2. **Recommendation:** Determine why the procedures were not followed, correct the procedures if necessary and practice.

19-96-5-A-22. Record-keeping on Exposure Logs

NUREG-0654 Reference: N.1.a

Objective #5
Demonstration Criterion #4

1. **Description:** SOP III.06, HP-11, Checklist EWEC-3, Section 3, Steps 1 through 5 (page 39) direct emergency workers to record initial, subsequent, and net readings. A Controller for FMT-Charlie gave one positive DRD reading; and for some reason, this reading (8 mR) was not recorded. Two exposure record cards were not completed correctly.
2. **Recommendation:** Provide additional training to county members of FMTs on how to do record-keeping on the low-and high-range exposure logs.

Prior Areas Requiring Corrective Action – Uncorrected

None

o SAN LUIS COASTAL UNIFIED SCHOOL DISTRICT

There were three objectives selected for demonstration, observation, and evaluation for the San Luis Coastal Unified School District (Objectives Numbers 5, 14, and 16). These objectives were demonstrated by interview. Two objectives were met, and an ARCA was identified for one Objective. There are no uncorrected ARCAs from previous exercises.

On May 8, 2000 an interview was conducted with officials of the San Luis Coastal Unified School District (SLCUSD) to discuss their actions in the event of an emergency at DCP. Present were

the District Assistant Superintendent for Business and the Transportation Supervisor, as well as a representative from County OES.

The SLCUSD staff interviewed demonstrated the capability and resources necessary to implement protective actions for school children within the EPZ. The district contains 17 schools with 8,500 students, about 25% of whom are transported to school by bus. All schools are within one of the Protective Action Zones. The school day runs from 0715 to 1545 with some students in class during those hours. Bus operation lasts from 0550 to 17:15. One charter school is included in the district. While the district does not normally provide transportation for those charter school students, it will do so in an emergency.

There were copies of the SLCUSD emergency response plan in the office and both representatives seemed familiar with it. In an emergency at DCP, the COE Superintendent would be contacted by phone from the Sheriff's Office Watch Commander and advised of the situation. He would alert the district superintendents of the situation, then travel to the SLOCEOC. Subsequent contact with the district personnel would be by phone from the SLOCEOC. A secondary contact between the secretaries of the COE Superintendent and the District Assistant Superintendent would serve as verification of the initial contact.

Communication between the SLOCEOC and the SLCUSD offices is primarily by commercial telephone. As a backup there exists a direct intercom link a phone line that does not run through the centrex, which connects the district offices, the COE and the SLOCEOC.

The decision as to what action to take in an emergency resides with the District Assistant Superintendent. He indicated that if an incident happened during the time the students were being picked up, that operation would continue and children would be brought to school. Thereafter if evacuation were necessary the children would be transported to California Mid-State Fairgrounds in Paso Robles.

The District Assistant Superintendent indicated that if movement of the children were necessary, he would immediately contact the Transportation Supervisor and inform her of the situation. She would then contact the school bus drivers either by pager during off duty hours or by radio during duty hours. All SLCUSD school buses have two-way radios and are in contact with both the bus yards and the Transport Supervisor. The District Assistant Superintendent also has radio contact capability in his office. Busses would be staged at the schools awaiting further decisions as to emergency response. Two busses would be sent immediately to the charter school since this is the most likely of all the schools to be affected. The District Assistant Superintendent would obtain additional transport through a request to the COE Superintendent at the SLOCEOC. There are cooperative arrangements between school districts to cover such situations. The District Assistant Superintendent indicated he would contact the media to inform parents of where to pick up their children. Notification would be done by contacting the radio and TV stations by phone, and requesting the media broadcast the information. Note that the District Emergency Response Plan calls for the District to coordinate such information with the COE at the SLOCEOC and the

Emergency Public Information Team. During an emergency calling for evacuation, when the SLOCEOC has been activated, all public information should be released through the JMC, according to the County Plan. Releasing information without going through the media center can lead to confusion. The District does have pre-scripted, fill-in-the-blank messages which could be faxed to the media. The assumption in the planning is that the movement of the children would be early enough in the emergency that the general public has not yet been alerted to the incident.

School children are to be moved before a general evacuation is called for. In some cases, however, parents would become informed of the situation early and want to pick up their child before being evacuated. The District accepts this, would take roll of students at the earliest opportunity and would release the students to properly identified parents or guardians.

The capability to continuously monitor and control radiation exposure to emergency workers was demonstrated. Bus drivers for the SLCUSD have been trained in emergency worker exposure control. The Transportation Supervisor indicated that they were given training annually. When the drivers respond to the emergency they are to go first to one of the two bus yards where they are issued their Emergency Worker packets by the yard supervisors. The packets contain a 0-200mR (CDV-138) and 0-20R (CDV-730) "self-reading" dosimeter and a TLD, a dose record card and a bottle of KI tablets with instructions for their use of all the various pieces. The KI tablets were within their exposure date and the Transportation Supervisor indicated the dosimeters were checked on an annual basis but she did not have a record of such available at the interview. She indicated that each driver was to zero their own dosimeters, with chargers on hand at the bus yards, and record the readings before going into the field. The packets also contained information on bus evacuation routes.

Drivers were to read their dosimeters every hour, and when they reached 250 mrem, report the readings to the Transportation Supervisor. Thereafter they would report every 250 mrem increase. She, in turn, would pass the readings on to the District Assistant Superintendent who transmits them to the EWEC desk at the SLOCEOC. She indicated that the maximum allowable dose without further authorization from the CHO was 1.25 Rem, and that they would call the CHO if anyone's dose reached 1000 mrem on the dosimeter. Instructions to take KI were to come only from the CHO and would be relayed through her to the bus drivers by radio. Drivers were to turn in their EWEC kits to the yard supervisor and thus to her at the end of their shifts.

Drivers from other districts have not necessarily been trained on Emergency Worker Exposure Control. The Transportation Supervisor indicated that these individuals would get their kits at the bus yard and would be told to read the instructions before going on their routes. They would also receive their maps telling them where to go to pick up the students and where to transport them. The District's evacuation site, the Mid-State Fairgrounds, is seen as a temporary site with sufficient shelter and restrooms for a 3-4 hour stay. If the situation was not resolved in that time, the students would be transported to Camp Roberts, a National Guard camp with sufficient facilities for a longer stay. The presumption is that students would eventually be picked up by their parents at that location.

The SLCUSD personnel seemed familiar with their plan and operations that would be necessary under that plan. There is a concern that bus drivers from outside the district are not and would not be adequately trained in Emergency Worker Exposure Control by simply reading the instructions in the EWEC kits while at the bus yard.

The capability and resources to implement KI protective actions for emergency workers was demonstrated. The emergency worker kit contained a bottle of KI tablets with instructions for. The KI tablets were within their exposure date. Instructions to take KI were to come only from the CHO and would be relayed through her to the bus drivers by radio.

Areas Requiring Corrective Action

19-00-16-A-6. Information to Parents with School Children- SLCUSD

NUREG-0654 Reference J.10.d.g.

Objective #16

Demonstration Criterion #4

1. **Description:** The District Assistant Superintendent indicated he would call the media to inform them where parents could pick up the children following an evacuation. Notification would be done by contacting the radio and TV stations by phone, and requesting the media broadcast the information. The SLCUSD plan calls for the District Superintendent to coordinate such information with the COE at the SLOCEOC and County Public Information Team. During an emergency calling for evacuation, when the SLOCEOC has been activated, all public information should be released through the JMC, according to the County Plan. Releasing information without going through the media center can lead to confusion.
2. **Recommendation:** Ensure that SLCUSD personnel are trained to follow their plan in the release of information to the public.
3. **Corrective Action:** County OES will draft a letter to the San Luis Coastal Unified School District reminding District staff that it is important that the district coordinate the release of information to the media with the COE and the County Public Information function at the SLOCEOC. County OES staff will review the SLCUSD SOP to determine whether or not additional guidance is necessary to ensure that this step in the procedure is followed. The measures identified above will be completed by December 1, 2000.

Prior Areas Requiring Corrective Action – Corrected

None

Prior Areas Requiring Corrective Action – Uncorrected

None

o EMERGENCY WORKER EXPOSURE CONTROL INTERVIEWS

California Highway Patrol

There were two objectives established for demonstration, observation, and evaluation by the CHP during an out-of-sequence interview (Objective Numbers 5 and 14). Both objectives were met. There are no uncorrected ARCAs from previous exercises.

The capability to continuously monitor and control radiation exposure of CHP emergency workers was demonstrated by an emergency worker interview at the SLOCEOC as called for in the extent-of-play agreement for the exercise. One emergency worker kit was assembled from CHP stocks for the purposes of the interview. The kit consisted of a bottle of KI, KI administration instructions, one CDV 138 0-200mR DRD, one CDV 730 0-20R DRD, dosimeter charger, and exposure records forms. No evidence of leakage records were provided with the dosimetry kit used. On a quarterly basis, a letter is distributed to all dosimeter holding organizations by San Luis Obispo County OES reminding the users to check their dosimeters and discard all defective dosimeters. The interviewee demonstrated the capability to use the DRD, read the DRDs, and operate the dosimeter charger. The interviewee also correctly identified the minimum frequency to read the dosimeters as one hour. The individual interviewed was familiar with the location for storage of dosimeters at the local CHP Office in San Luis Obispo. The individual interviewed was very familiar with the dosimetry requirements of, and exposure limits identified in, County Nuclear Power Plant Emergency Response Plan SOP III.06 HP-11. The interviewee correctly answered questions regarding issuing, handling, reporting dosimetry readings, and location for returning dosimetry and dosimetry records. The interviewee was also familiar with organizations responsible for recording and processing exposure records for emergency workers. The interviewee correctly answered questions on higher dose limits and requirements for authorizing higher dose limits. The interviewee was familiar with the procedures to be followed for situations such as lost or off-scale dosimeters.

The capability and resources to implement KI protective actions for CHP emergency workers were demonstrated by an interview in SLOCEOC per the extent-of-play agreement. A bottle of KI was contained in the emergency worker kit assembled for the purposes of the interview from CHP stocks. The expiration date for the KI was September of 2000. The interviewee demonstrated an understanding of why KI is taken by emergency workers during a release from DCCP. The

individual interviewed was familiar with the storage locations for KI at the CHP Office in San Luis Obispo. The individual interviewed was familiar with the requirements of County Nuclear Power Plan Emergency Response Plan SOP III.06 HP-11. The interviewee correctly identified the CHP Dispatch Center as the Command Center control points for issuing directions regarding administration of KI as directed by the County Health Officer through the EWEC desk in accordance with HP-11. The interviewee was familiar with the administrative recordkeeping requirements and the possible side effects from taking KI.

Areas Requiring Corrective Action

None

Prior Areas Requiring Corrective Action – Corrected

None

Prior Areas Requiring Corrective Action – Uncorrected

None

California Department of Transportation

There were two objectives established for demonstration, observation, and evaluation by CALTRANS during an out-of-sequence interview (Objective Numbers 5 and 14). Both objectives were met. An ARCA from the 1998 exercise was corrected. There are no uncorrected ARCAs from previous exercises.

The capability to continuously monitor and control radiation exposure to emergency workers was demonstrated during an out-of-sequence interview with a CALTRANS supervisor. An emergency worker kit provided by the CALTRANS supervisor was examined. This kit consisted of a small plastic bag containing (1) dosimeter charger, (1) 0 to 200 mR DRD, (1) 0 to 20 R DRD, (1) vial of KI (expiration date of 09/2000), KI instructions, (1) TLD serial number, high and low range exposure record cards, and checklist EWEC-3. These emergency worker kit contents were consistent with the guidance provided in SOP III.06 HP-11. This corrected ARCA #19-98-5-A-5.

According to the CALTRANS supervisor, the DRDs are periodically checked for leakage; however, documents relating to these leak checks were not available for review.

CALTRANS provides support for traffic control in the event of an emergency evacuation. CALTRANS personnel who may be required to work in affected protective action zones and act

as emergency workers include department maintenance workers, equipment operators, and supervisors. According to the supervisor, all emergency workers are issued the emergency worker kits described above. Prior to deployment, all DRDs are zeroed using the supplied dosimeter charger and all emergency workers briefed as indicated in the Emergency Worker Exposure Control Checklist. The briefing include directions for wearing dosimetry and the appropriate information and cautions for administering KI. Emergency worker personal information is recorded on the Personnel Roster/ Exposure Log and this form is provided to the EWEC desk. The supervisor correctly stated that the emergency worker exposure limit of 1.25 rem and also correctly described the process for requesting authorization from the Department of Health for emergency exposures excess of the 1.25 rem limit.

According to the CALTRANS supervisor, the emergency workers record their beginning and ending dosimeter reading on the forms provided. Additionally, the emergency workers are advised to read their DRDs at one-hour intervals. Completed forms and dosimetry are returned to the EWEC at the end of the mission.

The capability and resources to implement KI protective actions for CALTRANS emergency workers was demonstrated through an out-of-sequence interview with a CALTRANS supervisor. The CALTRANS supervisor stated that all emergency workers are issued emergency worker kits prior to deployment into affected protective action zones. These kits include a bottle of KI tablets and the appropriate KI instructions forms. Additional emergency worker kits are available through the Emergency Operations Center. According to the supervisor, all emergency workers are briefed prior to deployment. That briefing includes the appropriate information and cautions for administering KI and directions not to take the KI until ordered to do so.

The CALTRANS supervisor stated that the KI protective action would be ordered through the Department of Health. CALTRANS supervision transmits this order by radio to the emergency workers. CALTRANS line supervisors ensure that the protective action is fully implemented.

Area Requiring Corrective Action

None

Prior Areas Requiring Corrective Action – Corrected

19-98-5-A-5 Dosimetry kit not prepared in accordance with SOPs

NUREG-0654: K.3.a., N.1.a

Objective #5

Demonstration Criteria #1&4

1. **Description:** The CALTRANS representative brought an EWEC dosimetry kit to the interview. The dosimetry kit contained exposure record forms for each range of direct reading dosimeters (DRDs); however, the kit only contained two low-range (0-200 mR) DRDs instead of one low-range DRD and one high-range (0-20 R) DRD. This was not in accordance with Procedure III.21, Section D, Attachment Cal-3, page 24, item 2, which specifies that exposure control equipment be assembled in accordance with HP-11, EWEC-2, Sections A, B and C. (Note: This reference to HP-11 appears to be outdated, as EWEC-2 no longer has Sections A, B and C.) This issue could have been self-correcting if this demonstration had been conducted in line with the exercise rather than out-of-sequence, as there may have been other CALTRANS staff who would have identified the discrepancy before the dosimetry kit got into the field.
2. Recommendation: Ensure EWEC dosimetry kits have the correct equipment.

Prior Areas Requiring Corrective Action – Uncorrected

None

California Department of Parks and Recreation

There were two objectives established for demonstration, observation, and evaluation of the Department of Parks and Recreation during an out-of-sequence interview (Objective Numbers 5 and 14). Both objectives were met. There are no uncorrected ARCAs from previous exercises.

The capability to continuously monitor and control radiation exposure for emergency workers was demonstrated during an interview with a ranger from DPR. One emergency worker kit was assembled from DPR stocks for the purposes of the interview. The kit consisted of a bottle of KI, KI administration instructions, one CDV 138 0-200mR DRD, one CDV 730 0-20R DRD, dosimeter charger, and exposure records forms. No evidence of leakage records were provided with the dosimetry kit used. On a quarterly basis, a letter is distributed to all dosimeter holding organizations by San Luis Obispo County OES reminding the users to check their dosimeters and discard all defective dosimeters. The interviewee demonstrated the capability to use the DRD, read the DRDs, and operate the dosimeter charger. The interviewee also correctly identified the minimum frequency to read the dosimeters as one hour. The individual interviewed was familiar with the location for storage of dosimeters at the DPR work areas at the Oceano Dunes Ranger

Station and at the Grove at Morro Bay State Park. The individual interviewed was very familiar with the dosimetry requirements of, and exposure limits identified in, County Nuclear Power Plant Emergency Response Plan SOP III.06 HP-11. The interviewee correctly answered questions regarding issuing, handling, reporting dosimetry readings, and location for returning dosimetry and dosimetry records. The interviewee was also familiar with organizations responsible for recording and processing exposure records for emergency workers. The interviewee correctly answered questions on higher dose limits and requirements for authorizing higher dose limits. The interviewee was familiar with the procedures to be followed for situations such as lost or off-scale dosimeters.

The capability and resources to implement KI protective actions for emergency workers was demonstrated during an interview with a State DPR ranger. One EW kit was assembled from DPR stocks for the purposes of the interview. The kit consisted of a bottle of KI, KI administration instructions, one CDV 138 0-200mR DRD, one CDV 730 0-20R DRD, dosimeter charger, and exposure records forms. The expiration date for the KI was September 2000. The interviewee demonstrated an understanding of why KI is taken by emergency workers during a release of radiation from DCP. The individual interviewed was familiar with the storage locations for KI at DPR. The individual interviewed was also familiar with the requirements of County Nuclear Power Plant Emergency Response SOP III.06 HP-11. The interviewee correctly identified the Oceano Dunes Ranger Station and at the Grove at Morro Bay State Park as the Command Center control points for issuing directions regarding administration of KI as directed by the County Health Officer through the EWEC desk in accordance with HP-11. The interviewee was familiar with the administrative record keeping requirements and the possible side effects of taking KI.

Areas Requiring Corrective Action

None

Prior Areas Requiring Corrective Action – Corrected

None

Prior Areas Requiring Corrective Action – Uncorrected

None

County Sheriff's Department

There were two objectives established for demonstration, observation, and evaluation of the County Sheriff's Department during an out-of-sequence interview (Objective Numbers 5 and 14).

Both objectives were met. An ARCA from a previous exercise was closed. There are no uncorrected ARCAs from previous exercises.

The County Sheriff's Department representative demonstrated through an interview the capability to continuously control radiation exposure to emergency workers in accordance with the established extent-of-play. Discussion included the issue of dosimetry, exposure forms, and KI. The dosimetry included one low-range DRD with a 0-200 mR range, one high-range DRD with a range of 0-20 R, and one TLD. The representative zeroed the DRDs using a dosimeter charger.

The representative explained that initial readings and serial numbers would be recorded on the Personnel Roster/Exposure Log. DRDs would be read at one hour intervals and readings recorded on the emergency worker's individual exposure form. Upon termination of their shifts emergency workers would return their dosimetry and documentation to the EWEC Desk.

The representative was familiar with exposure limits and stated he would notify his EWEC Coordinator if dosimeter readings approach 250 mR, 500 mR, 750 mR, and 1000 mR. The total mission exposure limit was 1.25 R. This corrected ARCA #19-98-5-A-6.

The County Sheriff's Department representative demonstrated the capability to implement KI protective actions for emergency workers in accordance with the established extent-of-play through briefings and interviews. Instructions on the purpose for taking KI, dosage rates and time, and possible side effects were discussed. The representative explained the process for receiving notification of the order to take KI including who authorizes the use of KI. The available KI supply was within the expiration date 09/00.

The issuance and consumption of KI was also discussed. KI would be issued with dosimetry with instructions not to take the KI until authorized. Instructions to take KI are authorized by the CHO.

Area Requiring Corrective Action

None

Prior Areas Requiring Corrective Action – Corrected

19-98-5-A-6. Exposure Limits

NUREG-0654: K.3. b.4

Objective #5
Demonstration Criteria #2

1. **Description:** The sergeant from County Sheriff's Department did not seem to be aware of exposure limits. The individual was aware that the CHO had to authorize exposure in excess of 1.25 Rem; however, he was not aware of the need to monitor and report to his command function when his total exposure reached 250 mR, 500 mR, 750 mR, and 1000 mR.
2. **Recommendation:** Train staff on exposure limits and the importance for monitoring and reporting when the exposure limits are approached

Prior Areas Requiring Corrective Action – Uncorrected

None

South Bay Fire Department

There were two objectives established for demonstration, observation, and evaluation of the SBFD during an out-of-sequence interview (Objective Numbers 5 and 14). Both objectives were met. There are no uncorrected ARCAs from previous exercises.

The SBFD representative demonstrated the capability to continuously monitor and control radiation exposure to emergency workers in accordance with the established extent-of-play. Discussion included the issue of dosimetry, exposure forms, and KI. The dosimetry included one low-range DRD with a 0-200 mR range, one high-range DRD with a range of 0-20 R, and one TLD. The representative zeroed the DRDs using a dosimeter charger.

The representative explained that initial readings and serial numbers would be recorded on the Personnel Roster/Exposure Log. DRDs would be read at one hour intervals and readings recorded on the emergency worker's individual exposure form. Upon termination of their shifts emergency workers would return their dosimetry and documentation to the EWEC Desk.

The representative was familiar with exposure limits and stated he would notify his EWEC Coordinator if dosimeter readings approach 250 mR, 500 mR, 750 mR, and 1000 mR. The total mission exposure limit was 1.25 R.

The issuance and consumption of KI was also discussed.

The capability and resources to implement KI protective actions for emergency workers was demonstrated during an interview with an engineer from SBFD. The SBFD representative demonstrated the capability to implement KI protective actions for emergency workers in accordance with the established extent-of-play. Instructions on the purpose for taking KI, dosage rates and time, and possible side effects were discussed. KI would be issued with dosimetry with instructions not to take the KI until authorized. Instructions to take KI are authorized by the CHO. The representative explained the process for receiving notification of the order to take KI. The available KI supply was within the expiration date 09/00.

Areas Requiring Corrective Action

None

Prior Areas Requiring Corrective Action – Corrected

None

Prior Areas Requiring Corrective Action – Uncorrected

None

County Engineering Department-Section Yard

There were two objectives established for demonstration, observation, and evaluation of the County Engineering Department-Section Yard during an out-of-sequence interview (Objective Numbers 5 and 14). Both objectives were met. There were no uncorrected ARCAs from previous exercises.

The capability to continuously monitor and control radiation exposure for emergency workers was demonstrated during an out-of-sequence interview held with two supervisors from the San Luis Obispo County Engineering/Roads /Division (County Engineering). The interview began with an examination of an emergency worker kit provided by the County Engineering supervisors. This kit consisted of a small plastic bag containing a dosimeter charger, a 0 to 200 mR DRD, a 0 to 20 R DRD, one vial of KI with expiration date of 09/2000, KI instructions, a TLD, high and low range exposure record cards, and checklist EWEC-3. These emergency worker contents were consistent with the guidance provided in SOP III.06 HP-11.

According to the County Engineering supervisors, the DRDs are periodically checked for leakage; however, documents that related to these leak checks were not available for review.

County Engineering provides road maintenance and traffic control support in case of an emergency evacuation. County Engineering personnel who may be required to work in affected protective action zones and act as emergency workers include department equipment operators and supervisors. According to the County Engineering supervisors, all emergency workers are issued the emergency worker kits described above. Prior to deployment, all DRDs are zeroed using the supplied dosimeter charger and all emergency workers briefed as indicated in the Emergency Worker Exposure Control Checklist. The briefing included directions for wearing dosimetry and the appropriate information and cautions for administering KI. Emergency worker personal information is recorded on the Personnel Roster/ Exposure Log and this form is provided to the EWAC desk. The County Engineering supervisors correctly stated that the emergency worker exposure limit of 1.25 rem, but they were uncertain about the time period over which the emergency worker is allowed to receive 1.25 rem. The supervisors eventually concluded that the 1.25 rem was a daily exposure limit. A short training discussion was held to correct the supervisors' misunderstanding. After the discussion, the supervisors were able to correctly describe the emergency worker exposure limit as the mission limit for the duration of the emergency. The supervisors also correctly described the process for requesting authorization from the Department of Health for emergency exposures excess of the 1.25 rem limit.

According to the County Engineering supervisors, the emergency workers record their beginning and ending dosimeter reading on the forms provided. Additionally, the emergency workers are advised to read their DRDs at one-hour intervals. Completed forms and dosimetry are returned to the EDEOC at the end of the mission.

The capability and resources to implement KI protective actions for emergency workers was demonstrated during an out-of-sequence interview with two San Luis Obispo County Engineering/Road Division (County Engineering) supervisors. The County Engineering supervisors stated that all emergency workers are issued emergency worker kits prior to deployment into affected protective action zones. These kits include a bottle of KI tablets and the appropriate KI instruction forms. Additional emergency worker kits are available through the EDOC. According to the supervisor, all emergency workers are briefed prior to deployment. That briefing includes the appropriate information and cautions for administering KI and directions not to take the KI until ordered to do so.

The County Engineering supervisors stated that the KI protective action would be ordered through the Department of Health. The supervisors transmit this order by radio to the emergency workers and ensure that the protective actions are fully implemented.

Areas Requiring Corrective Action

None

Prior Areas Requiring Corrective Action – Corrected

None

Prior Areas Requiring Corrective Action – Uncorrected

None

APPENDIX 1

ACRONYMS AND ABBREVIATIONS

A&N	Alert and Notification
ACP	Access Control Point
ARC	American Red Cross
ARCA	Area Requiring Corrective Action
ARES	Amateur Radio Emergency Services
AVFS	Avila Valley Fire Station
BEPZ	Basic Emergency Planning Zone
CALTRANS	California Department of Transportation
CDE	committed dose equivalent
CDF	California Department of Forestry
cfm	ft ³ per minute
CFR	Code of Federal Regulations
CHADOC	County Health Agency Department Operations Center
CHO	County Health Officer
CHP	California Highway Patrol
COE	County Office of Education
cpm	Counts Per Minute
DCPP	Diablo Canyon Power Plant
DEH	Director of Environmental Health (County)
DHS	Department of Health Services (State)
DPR	Department of Parks and Recreation (State)
DRD	Direct-Reading Dosimeter
DSS	Department of Social Services
EARS	Emergency Assessment and Response System
EAS	Emergency Alert System
EBS	Emergency Broadcast System
ECC	Emergency Command Center (CDF)
ECL	Emergency Classification Level
EDOC	Engineering Department Operations Center
EEM	Exercise Evaluation Methodology
EHS	Environmental Health Specialist (County)
EOC	Emergency Operations Center
EOF	Emergency Operations Facility

EPZ	Emergency Planning Zone
ERNI	Emergency Response Network Information
ESD	Emergency Services Director
EWEC	Emergency Worker Exposure Control
FDA	U.S. Food and Drug Administration
FEMA	Federal Emergency Management Agency
FMT	Field Monitoring Team
FR	Federal Register
ft/min	feet per minute
ft ³ /min	cubic feet per minute
GBEOC	Grover Beach Emergency Operations Center
GBFD	Grover Beach Fire Department
GE	General Emergency ECL
IC	Incident Commander
JMC	Joint Media Center
KI	potassium iodide
LAN	local area network
LMUSD	Lucia Mar Unified School District
MIDAS	Meteorological Information and Dose Assessment System
MLR	Medical Liaison Representative
mR	milliroentgen
mR/h	milliroentgen per hour
NR	News Release
NRC	U.S. Nuclear Regulatory Commission
NUREG-0654	NUREG-0654/FEMA-REP-1, Rev. 1, <i>"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980</i>
OEL	Off-site Environmental Laboratory
OES	Office of Emergency Services
ORO	Off-site Response Organization

PAC	Phone Assistance Center
PAD	Protective Action Decision
PAG	Protective Action Guide
PAR	Protective Action Recommendation
PAZ	Protective Action Zone
PEZ	Public Education Zone
PG&E	Pacific Gas and Electric Company
PIC	Public Information Coordinator
PIO	Public Information Officer
POR	Point Of Review
PSLHD	Port San Luis Harbor District
R	Roentgen
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Service
RASCAL	Rapid Assessment System for Consequence AnaLysis
rem	Roentgen Equivalent Man
REP	Radiological Emergency Preparedness
RERP	Radiological Emergency Response Plan
R/h	Roentgen(s) per hour
RIX	Region 9
RM	Recovery Manager (PG&E)
RMD	Radiological Monitoring Director (PG&E)
RPT	Radiation Protection Technician (PG&E)
SAE	Site Area Emergency ECL
SBFD	South Bay Fire Department
SLCUSD	San Luis Coastal Unified School District
SLOCEOC	San Luis Obispo County Emergency Operations Center
SLORTA	San Luis Obispo Regional Transit Authority
SOP	Standard Operating Procedure
TCP	Traffic Control Point
TEDE	total effective dose equivalent
TLD	Thermoluminescent Dosimeter
UDAC	Unified Dose Assessment Center
UHF	Ultra High Frequency
USCG	United States Coast Guard
VHF	Very High Frequency

APPENDIX 2.

EXERCISE EVALUATORS

The following is a list of the personnel who evaluated the Diablo Canyon Power Plant Off-site Exercise on May 10, 2000. The letters “(TL)” indicate evaluator Team Leaders after their names. The organization that each evaluator represents is indicated by the following abbreviations:

- ANL - Argonne National Engineering Laboratory
- EPA - Environmental Protection Agency
- FDA - Food and Drug Administration
- FEMA - Federal Emergency Management Agency
- INEEL - Idaho National Engineering and Environmental Laboratory

<u>EVALUATION SITE</u>	<u>EVALUATOR</u>	<u>ORGANIZATION</u>
Unified Dose Assessment Center	Bradley Salmonson (TL) Periann Wood	INEEL EPA RIX
San Luis Obispo County Emergency Operations Center	Joseph Keller (TL) Bill Van Pelt John Tarca Dee Mauldin Jacques Mitrani	INEEL ANL FEMA RIX FEMA HQ ANL
Joint Media Center	Richard Converse (TL) Neil Johnson	ANL FEMA RIX
Phone Assistance Center	Patsy Wellman	FEMA RIX
Engineering Department Operations Center	Gerry Gibeault	INEEL
County Health Agency Operations Center	Dave Vargo	FEMA RIX
County Office of Education	Chuck Arnold	FEMA RIX
Avila Valley Fire Department	Melissa Coon	INEEL
Field Monitoring Teams	Bill Serrano Ron Alexander Daryl Thome (TL)	ANL FDA ANL

City of Grover Beach	Forrest Holmes	INEEL
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Out-of-Sequence Interviews:

EAS Station	Bill Van Pelt	ANL
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Cayucos School District	Richard Converse	ANL
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San Luis Coastal School District	Bill Van Pelt	ANL
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California Highway Patrol	Forrest Holmes	INEEL
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California Department of Transportation	Gerry Gibeault	INEEL
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California Department of Parks and Recreation	Forrest Holmes	INEEL
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County Sheriff's Department	Melissa Coon	INEEL
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County Engineering Department	Gerry Gibeault	INEEL
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South Bay Fire Department	Melissa Coon	INEEL
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Richard Echavarria, FEMA RIX, Evaluation Team Leader
Tom Ridgeway, FEMA RIX, RAC Chair
Elena Joyner, FEMA RIX, Administrative Support

APPENDIX 3.

EXERCISE SCENARIO

This appendix contains a summary of the simulated sequence of events -- Scenario -- which was used as the basis for invoking emergency response actions by OROs in the Diablo Canyon Power Plant Off-site Biennial Exercise on May 10, 2000.

This scenario, on the following page, was submitted by PG&E and San Luis Obispo County.

5. NARRATIVE SUMMARY

5.1 DIABLO CANYON EVENT

On May 10, 2000 at approximately 7:30 am, maintenance will be performed on one of two Residual Heat Removal (RHR) Pumps, RHR Pump 1-1. A large amount of debris will be found in the pump and investigations will be performed to locate the upstream source of the debris.

At 7:35 am, an electrical source (4kV Vital Bus H) will fail. This source is a power supply for the other Residual Heat Removal Pump, RHR Pump 1-2. At this point an Alert will be declared, because at least one of these pumps must be available while the plant is operating.

The Emergency Response Organization will respond and commence to shut down the plant.

At approximately 10:10 am, a Site Area Emergency will be declared because of a Small Break Loss Of Coolant Accident (SBLOCA) which creates plant conditions that require an escalation of the emergency classification.

The same debris that was discovered earlier will cause further problems with emergency cooling systems. This will cause fuel damage because of overheating. These conditions will cause a General Emergency to be declared at approximately 11:35 am.

At about 11:45 am, a hydrogen fire within containment will cause internal atmospheric pressure to increase sharply which in turn will cause a radioactive gas release to the external environment. Dose calculations will indicate the Protective Action Guideline limits will be exceeded in PAZs 1,2, and 3. Subsequent Protective Action Recommendations should be for evacuation of these zones.

At about 1:00 pm, the wind direction and speed will change, which should cause additional decision making concerning PAZs 6, 7, 10, and 11.

The radioactive release should end around 2:30 pm with exercise ending at 3:00 pm.

5.2 GROVER BEACH EVENTS

Grover Beach will run four emergency scenarios that are unrelated to the Diablo emergency.

Scenario #1 involves a simulated traffic accident at the intersection of Oak Park Rd. and Grand Ave., that occurs around 9:30 am. Traffic controls will include blocking of eastbound traffic on Grand Ave. and southbound traffic on Oak Park. An ambulance will be required to assist a victim.

Scenario #2 involves a knife wound victim at about 10:00 am. Ambulance and fire will be requested to respond, but will be unable to. Pismo Beach Fire Department will be requested to respond on a Mutual Aid. Pismo will transport the victim to Arroyo Grande Hospital at 10:15 am.

The knife wielding suspect will be identified and searched for between 10:15 and 11:00 am.

Scenario #3 will involve the search for a missing 4 year old child at 10:45 am. The police and fire departments will search for the child from 11:55 am until the child is located and returned to the mother at 1:15 pm.

A silent alarm from Mid State Bank at 1:30 pm will set the stage for Scenario #4. When the police call the bank to confirm the alarm, nobody responds. By 1:45 pm, it will be discovered to have been a false alarm.

5.3 CAL POLY / CDF / SAN LUIS FD

At 10:00 am a hay barn fire at the feed mill at Cal Poly will cause University police to request assistance from SLO City Fire Department. Fire personnel at scene will determine that the wild land fire will threaten CDF jurisdiction (SRA) at 10:15 am. Cal Poly Incident Commander will contact City Fire and request that CDF/County Fire be informed that the wildland fire is threatening SRA. CDF will augment the response. Cal Poly will initiate evacuation of the threatened dorms.

At 11:15 am, a delivery truck accident at Highland Drive and Mr. Bishop Road will block Highland. The accident will be cleared by 1:00 pm.

At 1:30, fire fighters will indicate that they have been successful in containing the fire.

APPENDIX 4

EXERCISE OBJECTIVES AND EXTENT-OF-PLAY AGREEMENT

This appendix lists the objectives that were scheduled for demonstration in the Diablo Canyon Power Plant Off-site Biennial Exercise on May 10, 2000, and the extent-of-play agreement approved by FEMA Region IX.

The objectives, contained in FEMA-REP-14, "Radiological Emergency Preparedness Exercise Manual," September 1991, represent a functional translation of the planning standards and evaluation criteria of NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for the Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980.

Because the objectives are intended for use at all nuclear power plant sites, and because of variations among off-site plans and procedures, an extent-of-play agreement is prepared by the State and approved by FEMA to provide evaluators with guidance on expected actual demonstration of the objectives.

A. Objectives

Listed below are the specific radiological emergency preparedness objectives scheduled for demonstration during this exercise.

OBJECTIVE 1: MOBILIZATION OF EMERGENCY PERSONNEL

Demonstrate the capability to alert and fully mobilize personnel for both emergency facilities and field operations. Demonstrate the capability to activate and staff emergency facilities for emergency operations.

OBJECTIVE 2: FACILITIES - EQUIPMENT, DISPLAYS, AND WORK ENVIRONMENT

Demonstrate the adequacy of facilities, equipment, displays and other materials to support emergency operations.

OBJECTIVE 3: DIRECTION AND CONTROL

Demonstrate the capability to direct and control emergency operations.

OBJECTIVE 4: COMMUNICATIONS

Demonstrate the capability to communicate with all appropriate emergency personnel at facilities and in the field.

OBJECTIVE 5: EMERGENCY WORKER EXPOSURE CONTROL

Demonstrate the capability to continuously monitor and control radiation exposure to emergency workers.

**OBJECTIVE 6: FIELD RADIOLOGICAL MONITORING
- AMBIENT RADIATION MONITORING**

Demonstrate the appropriate use of equipment and procedures for determining field radiation measurements.

OBJECTIVE 7: PLUME DOSE PROJECTION

Demonstrate the capability to develop dose projections and protective action recommendations regarding evacuation and sheltering.

**OBJECTIVE 8: FIELD RADIOLOGICAL MONITORING
-AIRBORNE RADIOIODINE AND
PARTICULATE ACTIVITY MONITORING**

Demonstrate the appropriate use of equipment and procedures for the measurement of airborne radioiodine concentrations as low as 10^{-7} (0.0000001) microcuries per cubic centimeter in the presence of noble gases and obtain samples of particulate activity in the airborne plume.

OBJECTIVE 9: PLUME PROTECTIVE ACTION DECISION-MAKING

Demonstrate the capability to make timely and appropriate protective action decisions.

OBJECTIVE 10: ALERT AND NOTIFICATION

Demonstrate the capability to promptly alert and notify the public within the 10-mile plume pathway emergency planning zone and disseminate instructional messages to the public on the basis of decisions by appropriate State or local officials.

**OBJECTIVE 11: PUBLIC INSTRUCTIONS
AND EMERGENCY INFORMATION**

Demonstrate the capability to coordinate the formulation and dissemination of accurate information and instructions to the public.

OBJECTIVE 12: EMERGENCY INFORMATION - MEDIA

Demonstrate the capability to coordinate the development and dissemination of clear, accurate, and timely information to the news media.

OBJECTIVE 13: EMERGENCY INFORMATION - RUMOR CONTROL

Demonstrate the capability to establish and operate rumor control in a coordinated and timely manner.

**OBJECTIVE 14: IMPLEMENTATION OF PROTECTIVE ACTIONS - USE
OF POTASSIUM IODIDE FOR EMERGENCY WORKERS,
INSTITUTIONALIZED INDIVIDUALS, AND THE
GENERAL PUBLIC**

Demonstrate the capability and resources to implement potassium iodide protective actions for emergency workers, institutionalized individuals, and, if the State plan specifies, the general public.

**OBJECTIVE 15: IMPLEMENTATION OF PROTECTIVE ACTIONS -
SPECIAL POPULATIONS**

Demonstrate the capability and resources necessary to implement appropriate protective actions for special populations.

**OBJECTIVE 16: IMPLEMENTATION OF PROTECTIVE ACTIONS -
SCHOOLS**

Demonstrate the capability and resources necessary to implement protective actions for school children within the plume pathway emergency planning zone.

OBJECTIVE 17: TRAFFIC AND ACCESS CONTROL

Demonstrate the organizational capability and resources necessary to control evacuation traffic flow and to control access to evacuated and sheltered areas.

B. Extent-of-Play Agreement

The extent-of-play agreement on the following page was submitted by San Luis Obispo County and was approved by FEMA Region IX, in preparation for the Diablo Canyon Power Plant Off-site Biennial Exercise on May 10, 2000. The extent-of-play agreement includes any significant modification or change in the level of demonstration of each exercise objective listed in Subsection A of this appendix.

2000 DIABLO CANYON POWER PLANT
EMERGENCY RESPONSE EXERCISE

April, 2000

FINAL JOINT OBJECTIVES AND EXTENT OF PLAY

Introduction:

San Luis Obispo County is the lead Off-site Response Organization in the event of an emergency at the Diablo Canyon Power Plant. The County coordinates the response with a number of allied municipal and district organizations as well as with local and regional state agencies. Local organizations participate in establishing their own extent of play. Extent of play for non-county organizations is based upon overall organization goals, schedules and available time and staffing.

Objectives and Extent of play :

The following joint objectives and extent of play have been developed through contact with state and local organizations involved in planning and response to Diablo Canyon Emergencies. The objectives listed are consistent with the six year exercise cycle as revised in 1995 and updated in 1996.

The evaluation of the exercise is to be based on the Points of Review applicable to the County/Cities Nuclear Power Plant Emergency Response Plan as proposed to be demonstrated within the context of the extent of play. Copies of the operable plans and procedures have been provided to FEMA Region IX staff. Updated procedures are provided on a regular basis. FEMA Region IX is responsible for assuring that evaluators are provided with current copies of the SOPs.

Federal guidance identifies an approximate ten mile area where the Federal Emergency Management Agency has primary oversight responsibilities for off-site plans and exercise performance. Protective Action Zones (PAZs) 1 through 5 form the basis of the basic area where the federal government has primary oversight responsibilities. As such, evaluation of exercise objectives is focused and limited to decisions and/or response activities that take place within Protective Action Zones (PAZs) 1 through 5. The area of the Diablo Canyon Nuclear Power Plant Emergency Planning Zone that comprise PAZs 6 through 12 is an area where the State of California has primary oversight responsibility. The State of California is the entity that will determine whether any corrective actions are required for actions or decisions that affect PAZs 6 through 12.

The extent of play will be driven by the specifics of the exercise scenario messages and the scenario itself. The details of the scenario are submitted as a separate document to avoid duplication.

The time frame of the Diablo Canyon 2000 emergency response exercise coincides with the completion of operations associated with Unocal's remedial work for an underground oil spill in the

**2000 DIABLO CANYON POWER PLANT
EMERGENCY RESPONSE EXERCISE**

April, 2000

FINAL JOINT OBJECTIVES AND EXTENT OF PLAY

Avila Beach/Port San Luis area. Demolition of structures, large scale earth removal, closure of most of the beach area, and construction related traffic disruption have occurred as a result of the remedial work done in the Avila area. Due to the potential for ongoing activities associated with the Uncocal clean-up effort, Port San Luis will participate in a reduced level and will not be evaluated during this exercise. The community of Avila Beach now contacts with CDF/County Fire Department for fire protection service (see #2 below).

Recent changes to facilities and emergency organizations include the following:

1. A new Joint Media Center and Phone Assistance Center Facility has been developed through a cooperative effort involving Pacific Gas and Electric Company and the County of San Luis Obispo. The new facility is located on County owned land in the County Operational Area. The facility is located approximately 1/4 mile from the County Emergency Operations Center. The new facility is actually two separate but adjoining modular structures. One structure is a working area for Public Information staff and the Phone Assistance Center. The other is a media briefing room.

The new facility incorporates the following changes in design and function.

- A separate structure is dedicated and maintained in constant readiness as a work area for public information staff and the Phone Assistance Center. This facility provides a larger, more functional work area and does not require set up. This is an improvement over the previous facility.
 - A media briefing room is separate from the work area for public information staff. While the briefing room is considerably smaller than the auditorium-like structure that comprised the previous Joint Media Center Facility, the layout of the facility is much more flexible allowing for better accommodation of the needs of television and other electronic media.
2. The SLO County Fire Department has contracted to provide fire protection service in the community of Avila Beach. The formerly independent Avila Fire Department has been incorporated into County Fire Department Operations. The Standard Operating Procedure for Avila Fire has been integrated to the County Fire Department Standard Operating Procedure. There are no functional changes to the actual duties and tasks. The change is primarily in

2000 DIABLO CANYON POWER PLANT
EMERGENCY RESPONSE EXERCISE

April, 2000

FINAL JOINT OBJECTIVES AND EXTENT OF PLAY

organizational structure. Fire Protection for Avila Beach and the surrounding area is now provided from County Fire Station 13 in Avila Valley.

**2000 DIABLO CANYON POWER PLANT
EMERGENCY RESPONSE EXERCISE**

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FINAL JOINT OBJECTIVES AND EXTENT OF PLAY

EVALUATED FACILITY LOCATIONS

The following facilities will be participating in the exercise and may be evaluated by FEMA during this exercise. Evaluation of the Objectives in the extent of play apply to the evaluated facilities. Interviews and other evaluation techniques are identified in specific objectives where appropriate.

1. San Luis Obispo County Emergency Operations Center (EOC)
1525 Kansas Avenue
San Luis Obispo, CA
2. Unified Dose Assessment Center (UDAC)
1525 Kansas Avenue
San Luis Obispo, CA
3. Off-site Environmental Laboratory (OEL)
PG&E Service Center
4325 South Higuera
San Luis Obispo, CA
4. Phone Assistance Center (PAC)
County Operational Area
San Luis Obispo, CA
(Hwy One north, left on Kansas Ave.)
5. Joint Media Center (JMC)
County Operational Area
San Luis Obispo, CA
(Hwy One north, left on Kansas Ave.)
6. County Engineering Department Operations Center (EDOC)
Old County Courthouse, Room 207
Osos and Palm Streets
San Luis Obispo, CA
7. San Luis Obispo County Office of Education (SLOCOE)
Rancho El Chorro - Highway One
San Luis Obispo, CA

**2000 DIABLO CANYON POWER PLANT
EMERGENCY RESPONSE EXERCISE**

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FINAL JOINT OBJECTIVES AND EXTENT OF PLAY

8. County Health Agency Department Operations Center (CHADOC)
2191 Johnson Avenue
San Luis Obispo, CA

COURTESY EVALUATED FACILITIES

The following facility will be participating in the exercise. The facility is outside of the federal oversight area that consists of PAZs 1 through 5. FEMA will evaluate this facility as part of a courtesy evaluation on behalf of the State of California. While no formal FEMA findings will result from the courtesy evaluation, FEMA will provide a list of comments and observations to the State Office of Emergency Services. These comments will be shared with the County of San Luis Obispo and the City as guidance and recommendations on how to enhance the response capabilities for Diablo Canyon Emergencies.

1. City of Grover Beach
711 Rockaway Avenue
Grover Beach, CA

NON- EVALUATED FACILITIES

The following facilities will be participating in the exercise, but these facilities will not be evaluated by FEMA. These facilities include city dispatch centers and state offices. The facilities are participating on a limited level to provide SLO County EOC participants with locations to contact and relay information. Unless otherwise noted, the organizations below will be staffed with a dispatcher or a designated personnel to receive notifications and information from the County EOC. These facilities are not a part of the formal evaluation for this exercise.

1. Morro Bay Emergency Operations Center
1001 Kennedy Way
Morro Bay, CA

2000 DIABLO CANYON POWER PLANT
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FINAL JOINT OBJECTIVES AND EXTENT OF PLAY

2. Pismo Beach Police Department
1000 Bello Street
Pismo Beach, CA
3. Arroyo Grande Police Department
200 North Halcyon Road
Arroyo Grande, CA
4. Atascadero Police Department
Corner of El Camino Real and Rosario
Atascadero, CA
5. Paso Robles Police Department
840 10th Street
Paso Robles, CA
6. State Regional Emergency Operations Center (REOC)
AFRC Building 283
11200 Lexington Drive
Los Alamitos, CA

NOTE: The REOC will have partial staffing for this exercise.

7. State Health Services Department Operations Center (DHS DOC)
601 7th Street
Sacramento, CA
8. State Warning Center
2800 Meadowview Road
Sacramento, CA
9. Port San Luis Harbor District
PO BOX 249, Pier 3,
Avila Beach, CA
10. San Luis Coastal School District
1499 San Luis Drive

2000 DIABLO CANYON POWER PLANT
EMERGENCY RESPONSE EXERCISE

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FINAL JOINT OBJECTIVES AND EXTENT OF PLAY

San Luis Obispo, CA

11. Lucia Mar School District
602 Orchard Street
Arroyo Grande, CA

13. CDF/County Fire Headquarters/ECC
635 N. Santa Rosa
San Luis Obispo, CA
NOTE: The CDF/County Fire ECC will have partial staffing for this exercise.

14. County Sheriff's Office Dispatch Center
1525 Kansas Avenue
San Luis Obispo, CA

15. California Highway Patrol Dispatch Center
675 California Blvd.
San Luis Obispo, CA

16. California Highway Patrol Coastal Division Headquarters
4115 Broad Street
San Luis Obispo, CA

17. California Department of Parks and Recreation
State Park Dispatch
Oceano Dunes SVRA Ranger Station

18. Cal Poly State University
San Luis Obispo
Administration Building

**2000 DIABLO CANYON POWER PLANT
EMERGENCY RESPONSE EXERCISE**

April, 2000

FINAL JOINT OBJECTIVES AND EXTENT OF PLAY

1. MOBILIZATION OF EMERGENCY PERSONNEL

Demonstrate the capability to alert and fully mobilize personnel for both emergency facilities and field operations. Demonstrate the capability to activate and staff emergency facilities for emergency operations.

San Luis Obispo County

Facilities identified as participating in the exercise will be mobilized and activated through call out and telephone tree notifications. The following exceptions are noted.

1.1. San Luis Obispo County Emergency Operations Center

The Santa Barbara Operational Area Liaison and National Weather Service staff will pre-stage at a location near the San Luis Obispo County Emergency Operations Center and receive notifications through the agencies normal procedure (i.e. pager, telephone and/or cell phone). The Salvation Army representative will not be participating in this exercise. Utility personnel from utilities other than PG&E will not be participating in this exercise.

1.2. San Luis Obispo County Emergency Operations Center

Security provided by the utility will pre-stage at this facility. As a dedicated facility, the County EOC has all supplies and equipment set up and in place at the start of the exercise. All designated positions in the County EOC will be staffed in accordance with the appropriate procedures.

1.3. Field Monitoring Teams

Three Field Monitoring Teams (County and PG&E jointly staffs each team) will be called out to the PG&E Distribution Operations Center on Higuera Street. As per the SOP, each Field Monitoring Team will have, at a minimum, one PG&E and one County FMT member.

1.4 Phone Assistance Center

The Phone Assistance Center will be staffed with five employees, plus one supervisor. This facility will be activated for at least four hours during the exercise. The facility equipment is in a constant state of readiness and requires no set up.

My notes show that you would remove the time limitations as you did for the EDOC.

1.5. Media Center

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The new Media Center at Kansas Avenue is dedicated facility and requires no set up. All major positions as identified in the PIO SOP will be staffed during the exercise with the exception of the State OES Representative (see 1.13 below).

1.6. Various

Mobilization of all fire departments, law enforcement, public works (except County Engineering Department Operations Center) and congregate care and evacuee monitoring will be simulated for this exercise.

1.7. Local municipalities' dispatch center

Dispatch centers will support the exercise. NOTE: the City of Grover Beach will partially activate their Emergency Operations Center and will be participating at the City EOC with key EOC staff positions being filled for this exercise. The City will be the subject of a courtesy evaluation by FEMA on behalf of the State of California. The Cities of San Luis Obispo, Pismo Beach and Morro Bay will have very limited staffing of EOC functions for purposes of communicating with the County EOC and internal training.

NOTE: Some entities listed above may elect to complete their portion of the exercise extent of play and terminate EOC or other operations prior to the conclusion of the activities at the County EOC.

1.8. County Engineering Department Operations Center

This facility will be activated with two to three people for the exercise.

1.9 County Health Agency Operations Center. CHADOC will not have ARES/RACES personnel in CHADOC for this exercise. CHADOC will be staffed in accordance with the SOP.

1.10 Avila Valley Fire Station (Station 13) - will participate with limited staffing. Volunteer fire fighters will not be called in as part of the exercise. The exercise will be begin with notifications as per the County Fire procedure. A fire Captain and one firefighter will be participating during the exercise.

State of California

1.11 Facility - San Luis Obispo County Emergency Operations Center

State OES responders to the EOC will be pre-staged at a near-by location

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and will report to the EOC when notified through their own agencies normal notification process. A minimum of one State OES representative will be present at the Command Table.

1.12 Facility - Pacific Gas & Electric Emergency Operations Facility

State responders to the Unified Dose Assessment Center will pre-stage at a nearby locations and will report to the Emergency Operations Facility when notified through their own agencies normal notification process. At a minimum, one State OES Representative and one State DHS representative will be in UDAC.

1.13 Facility - Media Center

~~The State will not be providing support for this function during the exercise.~~

My notes show that the State would have a PIO.

2. FACILITIES - EQUIPMENT, DISPLAYS, AND WORK ENVIRONMENT

Demonstrate the adequacy of facilities, equipment, displays and other materials to support emergency operations.

San Luis Obispo County

2.1 San Luis Obispo County Emergency Operations Center

This facility's security is maintained in accordance with procedure SLO County SOP III.02.

A computerized plant notification and information system will be in use during the exercise. The system (called ERNI) will be operational during the exercise. This is a utility run system and the use or non use of this system is not a part of the evaluated functions accomplished by the County.

2.2 County Engineering Department Operations Center

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No security is necessary for this facility and this facility does not require extensive set up.

2.3 Unified Dose Assessment Center

This facility remains in a constant state of readiness and does not require set up.

2.4 Phone Assistance Center

This facility is a new facility that is now in a constant state of readiness. There is little or no set up involved with the activation of this facility.

2.5 Media Center

This facility is a new facility that is now in a constant state of readiness. There is little or no set up involved with the activation of this facility.

2.6 Off-site Environmental Laboratory - Field Monitoring Teams

Field Monitoring Team Kits are operational and able to support the three teams in accordance with SOP-06, HP-3.

2.7 County Office of Education.

This facility does not require security. ARES will set up back-up communications in advance of the start of the exercise.

2.8 County Health Agency Department Operations Center

This facility does not require security. The facility requires little or no set up to be utilized for it's function.

2.9 Avila Valley Fire Station (Station 13)

This facility does not require security. The facility is a fire station and does not require extensive set up.

3. DIRECTION AND CONTROL

Demonstrate the capability to direct and control emergency operations.

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San Luis Obispo County

- 3.1 San Luis Obispo County Emergency Operations Center
The Emergency Services Director directs the activities of the San Luis Obispo County emergency response personnel and is the lead for command and decision making.
- 3.2 Off-site Environmental Laboratory - Field Monitoring Teams
Pacific Gas and Electric Company FMT member leads the Field Monitoring Teams.
- 3.3 Unified Dose Assessment Center
The Unified Dose Assessment Center Coordinator directs the personnel of the Unified Dose Assessment Center in conjunction with the PG&E Radiological Manager.
- 3.4 County Engineering Department Operations Center
The County Engineer or designee directs the activities of the County Engineering personnel.
- 3.5 Phone Assistance Center
The Phone Assistance Center Supervisor directs the activities of the Phone Assistance Center personnel.
- 3.6 Media Center
The County Public Information Officer directs the activities of the County Media Center personnel.
- 3.7 County Office of Education
The County Superintendent of Schools, or his designee, directs the activities of COE personnel.
- 3.8 County Health Agency Department Operations Center
The Health Agency Director, or his/her designee directs the activities of the Health Agency DOC.

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- 3.9 Avila Valley Fire
Avila Valley Fire will identify an Incident Commander (IC) for the exercise. The IC will direct the activities of Avila Valley Fire.
-

4. COMMUNICATIONS

Demonstrate the capability to communicate with all appropriate emergency personnel at facilities and in the field.

San Luis Obispo County

- 4.1 San Luis Obispo County Emergency Operations Center
Primary communications systems will be demonstrated in this facility, except for the following:
- 4.1.1 Backup communications will be demonstrated for a remote facility's communications to the Emergency Operations Center. This facility will lose primary communications (simulated through controller interject).
 - 4.1.2 CAWAS/NAWAS links will not be used.
 - 4.1.3 Radio nets may or may not be used as part of the communications for this exercise. Exercise participants may elect to use radio systems for communications at their own discretion.
 - 4.1.4 Tone Alerts to special facilities will not be activated for the exercise.
 - 4.1.5 The Local EAS System will not be activated for this exercise. A public information Officer will read the messages, however, the use of the system will be simulated.
 - 4.1.6 The use of the siren system will be simulated. No sirens will sound during the drill.

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- 4.2 Off-site Environmental Monitoring - Field Monitoring Teams
Primary radio communications systems will be demonstrated in this facility.
Backup communications will be checked for operability.
- 4.3 Unified Dose Assessment Center
Primary communications systems will be demonstrated in this facility.
Backup communications will be checked for operability.
- 4.4 County Engineering Department Operations Center
Primary communications systems will be demonstrated in this facility (Use of the
Engineering radio net is at the discretion of the participants). Backup
communications will be checked for operability.
- 4.5 Phone Assistance Center
Primary communications systems will be demonstrated in this facility.
- 4.6 Media Center
Primary communications systems will be demonstrated in this facility. Back-
up communications will be checked for operability.
- 4.7 County Office of Education
Primary communications systems will be demonstrated in this facility.
Backup communications will be checked for operability.
- 4.8 County Health Agency Department Operations Center
Telephones will be the primary communications. Back-up communications will be
checked.
- 4.9 Various - ARES/RACES volunteers will be participating in the exercise and will
staff a number of facilities. They provide back-up communications as needed.
ARES/RACES will be utilizing the exercise for training and are not a part of the
evaluation unless the ARES/RACES capability is utilized to fulfill item 4.1 above.
ARES personnel will be allowed to cease operations at one or more facilities for
purposes of moving to another facility.
-

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5. EMERGENCY WORKER EXPOSURE CONTROL

Demonstrate the capability to continuously monitor and control radiation exposure to emergency workers.

San Luis Obispo County

5.1 Off-site Environmental Monitoring - Field Monitoring Teams

Each Field Monitoring Team member will obtain personal dosimetry. One Field Monitoring Team member will be given a controller message that indicates that a member has reached administrative limits. A drill participant interview will verify correct procedure response. NOTE: The County of San Luis Obispo is responsible only for the performance of County Environmental Health members of the Field Monitoring Team. FEMA evaluation findings related to utility personnel should be directed to the utility and not the County.

5.2 Off-site Environmental Laboratory

One OEL team member is from County Environmental Health. This person will have County Emergency Worker Exposure Control Equipment and will be familiar with it's use.

5.3 San Luis Obispo County Emergency Operations Center

The PG&E Radiological Monitoring Director provides the Field Monitoring Team with an estimate of projected doses and protective actions needed. The estimates and directions are both given prior to and during deployment.

Dose records for offsite emergency workers that are not members of field monitoring teams are tracked by the emergency worker and the information relayed to the appropriate command center. The command center then relays this information to the Emergency Worker Exposure Control Desk in the County EOC. The Health Officer is advised of off-site dose exposure as specified in plans and procedures. The Emergency Worker Exposure Control desk participation will be driven by simulator messages - faxes from simulated command centers (SIM CELL) to EWEC desk.

5.4 The County Engineering Department Operations Center will demonstrate familiarity with Emergency Worker Exposure Control Procedures as part of the

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exercise play.

- 5.5 Interviews - As part of this objective, FEMA will, through out-of-sequence interview, evaluate familiarity with Emergency Worker Exposure Control Procedures for the following entities:

5.5.1 COUNTY

County Health Officer out of sequence interview regarding procedures for emergency workers reaching exposure limit during the exercise.
A representative of the Sheriff's Office will participate in an out-of-sequence interview. Add interview for Section Yard Supervisor.

5.5.2 STATE

One California Highway Patrol Officer.
One individual from Cal Trans and one individual from State Parks (selected by the State Office of Emergency Services) will participate in an out of sequence interview.

5.5.3 DISTRICTS

A representative from the South Bay Fire Department and will participate in an out of sequence interview prior to the exercise.

A representative from the transportation department of the Cayucos School District will participate in an out-of-sequence interview prior to the exercise.
NOTE: This interview may be done as part of the School District interview for Objective 16. Add interview for San Luis Coastal USD.

- 5.6 Avila Valley Fire Station 13 will provide a demonstration of familiarity with EWEC during a portion of the exercise extent of play.

As part of the Emergency Worker Exposure Control Objective, the entities identified above will include discussions related to the use of KI. The interviews listed above are solely for purposes of meeting Objectives 5 and 14 and are not to be used to for other objectives unless specifically identified in the body of this extent of play.

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6. FIELD RADIOLOGICAL MONITORING - AMBIENT RADIATION MONITORING

Demonstrate the appropriate use of equipment and procedures for determining field radiation measurements.

San Luis Obispo County

6.1 Field Monitoring Teams on location

ONLY
1 PERSON
Three Field Monitoring Teams will perform radiation measurements (NOTE: a Field Team member will demonstrate donning and doffing of protective clothing, however, protective clothing will not be worn during the exercise).

7. PLUME DOSE PROJECTION

Demonstrate the capability to develop dose projections and protective action recommendation regarding evacuation and sheltering. County Environmental Health UDAC staff will be utilizing a contract person as technical advisor. This is a pilot program established by Environmental Health to increase the technical and training support to County staff in UDAC. The technical advisor will essentially act as a member of the County UDAC staff and as such will operate under the existing procedure. The scenario does not include a loss of the primary dose assessment model computer and the backup system will not be demonstrated (unless an actual failure of the primary system occurs, such as the loss of drill feed data).

7.1 San Luis Obispo County

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7.1.1 Unified Dose Assessment Center

Unified Dose Assessment Center will project radiation dose to the affected population based upon plant data, plant conditions, meteorological conditions and field team measurements.

7.1.2 Unified Dose Assessment Center

Unified Dose Assessment Center will develop Protective Action Recommendations based upon dose projections, plant conditions and meteorological conditions.

7.2 State of California

7.2.1. Unified Dose Assessment Center

State personnel will perform independent dose projections in the Unified Dose Assessment Center as a quality check for UDAC generated projections.

7.2.2 Unified Dose Assessment Center

State personnel will participate in developing Protective Action Recommendations in the Unified Dose Assessment Center.

8. **FIELD RADIOLOGICAL MONITORING - AIRBORNE RADIOIODINE AND PARTICULATE ACTIVITY MONITORING**

Demonstrate appropriate use of equipment and procedures for the measurement of airborne radioiodine concentrations as low as 10^{-7} (0.0000001) Φ Ci per cubic centimeter in the presence of noble gases and obtain samples of particulate activity in the airborne plume.

8.1 San Luis Obispo County

8.1.1 Field Monitoring Teams on location

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Three Field Monitoring Teams will perform airborne radioiodine and particulate measurements, in accordance with their procedures.

9. PLUME PROTECTIVE ACTION DECISION MAKING

Demonstrate the capability to make timely and appropriate protective action decisions.

9.1 San Luis Obispo County

9.1.1 San Luis Obispo County Emergency Operations Center

The Command Group will decide on the appropriate protective actions based on Protective Action Recommendations and any local constraints.

9.2 State of California

9.1.1. San Luis Obispo County Emergency Operations Center

State Office of Emergency Services personnel will participate in discussions concerning Protective Action Decisions in the Command Group.

10. ALERT AND NOTIFICATION

Demonstrate capability to promptly alert and notify the public within the 10-mile plume pathway emergency planning zone and disseminate instructional messages to the public on the basis of decisions by the appropriate state or local officials.

10.1 San Luis Obispo County

10.1.1 San Luis Obispo County Emergency Operations Center
Alert and instruct the public by:

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- Use of prescribed Local Emergency Alert System messages.
- Simulate sounding of sirens.
- Simulate reading of messages.
- Backup route alerting will not be demonstrated.

The Sheriff's Office Operations Room representative has the procedure for back-up route alerting. A FEMA evaluator may do a brief out of sequence interview with the Sheriff's Operations Room representative during the course of the exercise, provided that the interview does not interfere with exercise play. My notes show you were to add this: CDF/County Fire Station 13 will provide one person to discuss their role in back-up route-alerting. This will be done Mya10, but it will be separate from and after exercise activities have concluded.

- The Diablo Canyon Plan does not include primary route alerting. No demonstration of primary route alerting will be included in the exercise.

10.1.2 The County will demonstrate the 15 minute requirement for Local Emergency Alert System message development during the first Alert and Notification sequence where EWS sirens and the EAS system are used to alert and notify the general public.

10.1.3 Timing for the message starts with the formal Command Group decision to adopt a Protective Action Decision and ends when the reading of the Local Emergency Alert System message is initiated. County will demonstrate Local Emergency Alert System by simulation and no messages will be sent to radio stations.

Note: Sirens are not sounded for precautionary closure of parks and beaches and precautionary relocation/movement of school children in this jurisdiction.

11. PUBLIC INSTRUCTIONS AND EMERGENCY INFORMATION

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Demonstrate the capability to coordinate the formulation and dissemination of accurate information and instructions to the public.

11.1 San Luis Obispo County

11.1.1 San Luis Obispo County Emergency Operations Center
Develop supplemental messages when necessary for dissemination to the public and or the media. Messages will not be sent to the Emergency Alert System Radio Stations for this exercise.

11.1.2 Media Center
Provide the news media with appropriate information and supplemental messages.

11.1.3 An out of sequence interview with one EAS radio station will be done ~~the day prior to the exercise on~~ May 8. The interview will include one station representative and the station engineer.

12. EMERGENCY INFORMATION - MEDIA

Demonstrate the capability to coordinate the development and dissemination of clear, accurate, and timely information to the news media.

12.1 San Luis Obispo County

12.1.1 San Luis Obispo County Emergency Operations Center
San Luis Obispo County Public Information Manager and County Public Information Coordinator coordinate the development of news releases.

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12.1.2 Media Center

San Luis Obispo County Public Information Officer coordinates dissemination of information in news releases and briefings.

13. EMERGENCY INFORMATION - RUMOR CONTROL

Demonstrate the capability to establish and operate rumor control in a coordinated and timely manner.

13.1 San Luis Obispo County

13.1.1 Phone Assistance Center (PAC)

This Center will be staffed with one supervisor and five people for at least four hours to respond to public and media inquiries and receive transportation requests from the car-less population.

13.1.2 FEMA will evaluate the Phone Assistance Center for the required number of messages for a period of two hours. The time frame will be provided to FEMA evaluators prior to the FEMA pre-exercise briefing. During this time, each Phone Assistance Center Operator will receive at least six messages per hour or 12 messages during the evaluation period. The PAC will remain activated throughout the exercise.

13.1.3 The scenario will include at least one trend of information as a rumor. Phone Assistance Center staff are tasked with identifying the trend and passing the information on to the Public Information Officer. The Public Information Officer is tasked with verifying the trend as truth or dispelling the trend as rumor. Clarification of rumor

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information should be done through either press releases or media briefings at the media center.

14. IMPLEMENTATION OF PROTECTIVE ACTIONS - USE OF KI FOR EMERGENCY WORKERS, INSTITUTIONALIZED INDIVIDUALS, AND THE GENERAL PUBLIC

Demonstrate the capability and resources to implement potassium iodine (KI) protective actions for emergency workers, institutionalized individuals, and if the State Plan specifies, the general public.

KI Policy Statement

Issuance of KI to the general public will NOT be demonstrated. In accordance with the State of California Policy Regarding Use of Potassium Iodide (KI), October 1984 (Section 7 E-16), KI will be made available to institutionalized populations and exposed populations at relocation centers only upon the recommendation of a local health officer.

14.1 San Luis Obispo County

14.1.1 Unified Dose Assessment Center

Emergency worker actual or projected radioiodine exposure is evaluated and recommendations are made to the County Health Officer to issue Potassium Iodine.

14.1.2 San Luis Obispo County Emergency Operations Center
County Health Officer (CHO) receives the Unified Dose Assessment Center recommendations and decides on the issuance of KI to emergency workers.

14.1.3 Field Monitoring Team On Location
Demonstration includes interviews by the Federal Emergency Management Agency with one Field Monitoring Team. KI usage is simulated.

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Include EDOC.

14.14 See objective 5.

14.2 State of California

14.2.1 Unified Dose Assessment Center

State Emergency workers working in the jurisdiction during the emergency will follow the protective action recommendations of that jurisdiction and will simulate taking KI as recommended by the jurisdictions' Health Officers.

14.2.2 See Objective 5.

15. IMPLEMENTATION OF PROTECTIVE ACTIONS - SPECIAL POPULATIONS

Demonstrate the capability and resources necessary to implement appropriate protective actions for special populations.

15.1 San Luis Obispo County

15.1.1 San Luis Obispo County Emergency Operations Center

County Health Officer, or his designee, will discuss identification of special populations notification and transportation methodology played out in exercise.

15.1.2 County Engineering Department Operations Center staff will address

~~the transportation needs of car-less populations~~ through simulated dispatch of buses in coordination with the Transportation Manager in the EOC. NOTE: The County Engineering Department Operations Center supports the Transportation manager on an as needed basis.

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- 15.1.3 Avila Fire Station 13 participants will briefly demonstrate familiarity with the special needs list and procedure. Contact with special needs individuals will not be demonstrated.
- 15.1.4 CHADOC will address special needs populations within the context of the Health Department SOP. CHADOC will make a sample number of calls to special needs facilities (at least three calls will be made).
-

16. IMPLEMENTATION OF PROTECTIVE ACTIONS - SCHOOLS

Demonstrate the capability and resources necessary to implement protective actions for school children within the plume pathway emergency planning zone.

16.1 San Luis Obispo County

16.1.1 San Luis Obispo County Office of Education - The County Superintendent of Education, or his designee, will report to the County Emergency Operations Center and staff the schools' function in the Shelter and Welfare room. Communications between the COE telephone team, school district offices and the COE representative in the County Emergency Operations Center will relay situation status and actions taken. A sample of private schools will be contacted to test communications, however, private schools will not be participating in the exercise.

16.1.2 Cayucos School District will participate in an out sequence interview to include a teacher, principal, bus driver or transportation manager (the Maintenance and Operations Supervisor is also a bus driver). The interview is intended to demonstrate familiarity with handling of school populations during a Diablo Canyon Event. Include interview with San Luis Coastal USD.

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16.1.3

17. TRAFFIC AND ACCESS CONTROL

Demonstrate the organizational capability and resources necessary to control evacuation and sheltered areas.

17.1 San Luis Obispo County

This objective will be demonstrated through the decision making processes by San Luis Obispo County enforcement officials, within the County EOC, in charge of evacuation traffic control.

Field implementation of traffic control procedures are routinely accomplished on a day to day basis as well as during major emergencies such as the Winter Storms of 1996, 1997 and 1998. Traffic control is addressed through participation of the CHP in the County EOC. CHP will simulate the allocation of traffic control resources in accordance with their SOP.

This Objective may be supplemented with the interview with CHP done concurrently with Objective 5

18. RECEPTION CENTER - MONITORING, DECONTAMINATION AND REGISTRATION
This objective will be demonstrated as a separate drill in Spring of 2001.

19. CONGREGATE CARE This objective will be demonstrated as a separate drill in Spring of 2001.

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22. **EMERGENCY WORKERS, EQUIPMENT, VEHICLES - MONITORING AND DECONTAMINATION**

This objective will be demonstrated as a separate drill in Spring of 2001.

23. **SUPPLEMENTARY ASSISTANCE (FEDERAL/OTHER)**

The County of San Luis Obispo has already successfully demonstrated this objective in the six year cycle. Based on the scenario, the County may request supplementary federal assistance as part of the exercise. County procedures automatically trigger these requests at specified emergency classification levels. No evaluation of this objective is required for this exercise. A request will originate from the Command Group in the EOC. The request will be routed to the State in accordance with state approved procedures for resources requests. If necessary, the Department of Health Services, via the Office of Emergency Services, will request U.S. Department of Energy support in plume tracking and deposition of radiological materials.

30. **CONTINUOUS, 24-HOUR STAFFING**

Demonstrate the capability to maintain staffing on a continuous, 24-hour basis through an actual shift change.

30.1 **San Luis Obispo County**

This objective will not be demonstrated by San Luis Obispo County.

30.2 **State of California**

This objective will not be demonstrated by the State.

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32. UNANNOUNCED EXERCISE OR DRILL

Demonstrate the capability to carry out emergency response functions in an unannounced exercise or drill.

32.1 San Luis Obispo County

This objective may be demonstrated through a separate drill.

32.2 State of California

33. OFF-HOURS EXERCISE OR DRILL

Demonstrate the capability to carry out emergency response functions during an off-hours exercise or drill.

33.1 San Luis Obispo County

This objective may demonstrated through a separate drill.

33.2 State of California

NOTES ON EXTENT OF PLAY

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- 1 Exercise Controllers will be present in all evaluated facilities. FEMA evaluators are to have
- 2 Some agencies and facilities will be accomplishing training as part of the exercise. The activities that are being run as training are not a part of the evaluated portion of the exercise. FEMA evaluators will be made aware of the training portions of the exercise as part of the exercise pre-briefing. Some of the training activities will be run concurrent with the exercise scenario.
- 3 A Simulation Cell (SIM Cell) will be used to simulate some functions so as to not interfere with the ongoing responsibilities of public safety agencies, and to represent functions or locations that are not participating. For example, the SIM Cell will simulate the Congregate Care function at Camp Roberts. The SIM Cell will utilize volunteers from local agencies to represent the functions of the agencies whenever feasible. The SIM Cell may drive some exercise and independent scenario activities through the use of telephone calls and faxed messages. The SIM Cell will be located in a PG&E facility off-site from the plant.
- 4 It is acknowledged that real emergency events will take precedence over activities assigned to the exercise.
- 5 Several participating agencies have developed independent scenario situations that are intended to drive additional actions on the part of the agency participants. The purpose of these independent scenario situations is to assure continued activities in remote locations that test communications and other functions that may not be related specifically to the nuclear power plant related aspects of the agencies response. This encourages a more broad spectrum of response activities as well as reduces the tedium of waiting for exercise events to unfold. The independent scenario events are not to be a part of the formal evaluation. Some of the independent scenario situations will be integrated into the overall scenario. Those independent scenarios that are within PAZ's 1 through 5 will generally be related to the larger nuclear power plant scenario and potentially subject to FEMA evaluation. Some will essentially be stand alone scenarios that will not have an impact on activities within PAZ's 1-5.

A summary of the independent scenarios follows:

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- 5.1 City of Grover Beach: Three to four mini-scenarios will be run in the city. The mini-scenarios are intended to drive actions that will lead to the request for mutual aid resources from the City of Arroyo Grande. The mini-scenarios will not involve actual field activities. The mini-scenarios include an injury vehicle accident, a missing person and alarm at a bank. Messages driving each mini-scenario will be provided to the appropriate participant in the Grover Beach emergency organization. Each mini-scenario will involve the simulated allocation of City resources.
- 5.2 Cal Poly State University, the City of San Luis Obispo, and CDF/County Fire will be participating in a mini-scenario intended to drive coordinated actions between the City of San Luis Obispo, Cal Poly and the CDF/County Fire Department.

The scenario will involve a wildfire that will threaten the Cal Poly Campus. This is not a field exercise, although Cal Poly has incorporated field elements. Cal Poly will simulate the closure of the campus due to the fire. The City and CDF/County fire will send Battalion Chiefs to the Cal Poly campus. The Battalion Chiefs will form the basis for the fire response. The fire will move out of the Campus into the wild land and may eventually threaten a portion of the city San Luis Obispo.

The above min-scenarios are not a part of the evaluated exercise.

APPENDIX 5

COURTESY EVALUATIONS

o CAYUCOS SCHOOL DISTRICT

On May 8, 2000 a courtesy interview was conducted at the Cayucos Elementary School with the Cayucos School Superintendent/Principal, a bus driver, a teacher and the school secretary. A representative from County OES was also present. The interview took place at Cayucos Elementary School and covered FEMA Objective Numbers 5, 14, and 16. Cayucos Elementary School is located approximately eighteen miles from DCP, in PAZ 9. The school is the only one contained in the Cayucos School District, and the Principal is also the District Superintendent.

The capability to continuously monitor and control radiation exposure to emergency workers was demonstrated. According to the driver, a kit is stored on each of the two buses used by the school. He brought with him an EWEC kit which contained the following items: 0-200mR and 0-20R DRDs, a record card for recording DRD readings, 1 TLD, 1 bottle of KI with instructions for its use and a copy of EWEC-3, which is the procedure checklist for emergency worker dose monitoring and control. There was no evidence that the dosimeters had been inspected for electrical leakage. However, the bus driver and the County OES representative explained that the school was sent a quarterly letter asking that the school's inventory of dosimeters be inspected to see if they had drifted from the zero mark. If any units had, a request should be submitted through the county for replacement of these units. The driver was able to explain the use of each item in the kit. Specifically, he demonstrated zeroing the dosimeters, he correctly explained how to read and record the dosimeter readings, understood the purpose and use of the TLD, whom to report his readings and where to turn in the TLD. He knew that he was not to receive more than 1.25 rem without specific authorization to incur a higher dose. However, he was not familiar with the 1 rem administrative exposure guideline. Although he indicated that he would read his dosimeter about every hour and report readings to the command center, he did not specifically state that he must report to the command center his total dose in 250 mR increments as specified in procedure EWEC-3.

The bus driver demonstrated the capability and resources to implement KI protective actions. The EWEC contained a bottle of KI. He knew that he should only take KI after being specifically instructed to do so, and that the County Health Officer would make the decision.

The Cayucos Elementary School staff interviewed demonstrated the capability and resources necessary to implement protective actions for school children within the EPZ. The Principal and teacher understood the purpose of the ECLs and the potential protective actions for students (shelter in place, evacuation). Notification would come from the County Office of Education over the telephone. Notification would also be

received via the tone alert radio. All had access to the Emergency Response Plan for Cayucos Elementary School (April 2000). The plan makes provisions for an emergency that begins when school is not in session, when school is not in session but students are enroute to school and when school is in session. The secretary stated that accountability for students is established each day as attendance is taken. Students leaving before the end of the school day are required to sign out, so an accurate list of the number of students at school at any time is maintained. The Principal stated that enrollment is 274 children, and that there are a total of 29 certificated and classified staff.

The two buses used by the school are kept a short distance from school property during the school day. According to the driver interviewed, the bus drivers would use cell phones to report dosimetry readings and to maintain contact with decision makers. Since there are dead zones in cell coverage, the schools are looking at equipping the buses with either a VHF or UHF radio system. If evacuation were ordered, students would be transported to Santa Lucia Middle School in Cambria. Children in the lower grades (approximately half of the student population according to the Principal) would be loaded first. If time permitted (for example, if an early precautionary relocation was conducted), the same two buses would be used to move the remainder of the school population. If additional buses were needed, the school has an agreement with the Coast Unified School District in Cambria to provide buses. They are attempting to get a similar agreement with the San Luis Coastal Unified School District. The school could also place a transportation request with the County Office of Education.

Summary

This interview was conducted with an enthusiastic sample of staff from the Cayucos Elementary School. All staff interviewed seemed well-versed in most aspects of their responsibilities in a DCPD emergency. Future training should reinforce all aspects of emergency worker exposure control. In particular emergency workers should be reminded of the 1 rem administrative exposure guideline and the need to report exposure in 250 mR increments. These items are specified in the Emergency Worker Exposure Control Checklist EWEC-3 that is contained in SOP III.06 HP-11 of the San Luis Obispo County Nuclear Power Plant Emergency Response Plan.

o City of Grover Beach

At the request of the State of California Office of Emergency Services, FEMA completed a courtesy evaluation of the operations at the Grover Beach Emergency Operations Center (GBEOC) during the 5-11-00 DCPD Emergency Exercise. The GBEOC staff responded to events surrounding the simulated accident at DCPD, several mini-scenarios included in their exercise package, and several "real" events in Grover Beach.

The GBEOC is a non-dedicated facility housed in the Grover Beach Police Department building. The San Luis Obispo County Nuclear Power Plant Emergency Response Plan SOP III.34 (City of Grover Beach) requires the GBEOC to be activate at an alert

declaration at DCPD. An initial notification, of an Alert ECL declaration by Diablo Canyon, was received by the Grover Beach Police Department Dispatch Center at 0808. This notification was passed on to the Chief of Police for Grover Beach and a page message was sent out to GBEOC personnel to respond to the GBEOC. Staff at the Grover Beach Police Department set up the GBEOC in a timely manner. At 0824 all personnel identified in the SOP II.34 were in the GBEOC and the GBEOC was declared operational. The Emergency Support Director (ESD) initiated a briefing of the status of the event and directed initial response actions. All personnel in the GBEOC utilized checklists and procedures during the conduct of the exercise. The initial alert declaration notification from the County contained very minimal information and it was not until 0852 when more details were provided by the County. In spite of the minimal information available, the GBEOC staff initiated effective response planning efforts that addressed prolonged staffing, and traffic control activities in anticipation of a prolonged activation and/or evacuation of areas surrounding the DCPD. At 0851, the GBEOC was notified that the SLOCEOC was being activated. Tracking of available resources was initiated by all City organizations and was maintained throughout the event. EWEC activities were initiated by a member of the Grover Beach Fire Department (GBFD) in accordance with SOP III.06 HP-11 (Emergency Worker Exposure Control.) The GBEOB EWEC coordinator conducted thorough and comprehensive briefings. Tracking of exposures was in accordance with established procedures and hourly dosimeter readings were reported to the SLOCEOC EWEC Desk. Amateur radio operators provided support to the GBEOC as part of the County ARES and RACES program, throughout the exercise, in monitoring communications on the County Sheriffs' "Blue Channel" and receiving traffic from the SLOCEOC and other emergency centers. At several times the only source of detailed event data consistently getting to the GBEOC was via the ARES/RACES. Official event status information is normally provided via the SLOCEOC City Liaison. The data obtained by the ARES/RACES was correctly treated as unconfirmed information. However, the availability and use of this data allowed the GBEOC to maintain a consistent forward looking and very effective response to the event.

The GBEOC PIO contacted SLOCEOC PIO at 0843 and reported the GBEOC was operational and ready to coordinate activities. Media Release #1 was provided to GBEOC at 0851. No other Media Releases were received until after the GBEOC PIO contacted the SLOCEOC PIO at 1047. The GBEOC PIO was told by the SLOCEOC PIO that they were not part of the normal distribution, but they were going to take care of the oversight. Media Releases 2 through 8 were received at the GBEOC at 1125. Media Releases 9 through 15 were provided as promised. No further Media Releases were provided to the GBEOC until the GBEOC PIO again contacted the SLOCEOC PIO and requested the releases. Based on the lack of consistent information from the County, the GBEOC issued its own "vanilla" media releases to local media. These were not coordinated with the SLOCEOC PIO. A post-exercise discussion identified and resolved this problem.

During the course of the response, information provided to the decision makers in the GBEOC by the SLOCEOC was minimal at best. While no protective actions were issued

for Grover Beach, decisions to close schools, beaches, parks, and evacuate PAZs 1,2,3, 6 and 7 directly impact Grover Beach. The message forms issued by the SLOCEOC to subordinate emergency centers is insufficient in content to allow the municipalities to fulfill the functions in keeping their organizations informed. Of the EAS messages issued by the SLOCEOC, only message #2 was provided to the GBEOC. This EAS message was issued at 1112 and was finally provided to the GBEOC at 1246. Overall, there was a lack of meaningful data from the SLOCEOC, a failure to consistently provide Media Releases, and a failure to communicate detailed event situation information with GBEOC unless prompted by a call from GBEOC requesting information. This left the GBEOC ESD in a position of wondering whether it was in the best interest of the Grover Beach citizens to evacuate at his request. The exercise terminated before the decision was reached to evacuate the city. Further review of the data needs and how they are satisfied should be undertaken by the County and the municipalities of the County. While the current data form makes it easy to exchange "vanilla" information, the basis behind the decisions and general discussions must be encouraged and accommodated by the County.

The GBEOC queried the SLOCEOC on the status of restricting rail traffic through Grover Beach at 1405. The County did not provide an answer for forty minutes. A review of records indicates that although maritime, aviation and rail traffic was simulated as restricted at 1000, it was not communicated by SLOCEOC to GBEOC and other municipalities. The cause of this failure could be attributed to the nature of the simulation. Similarly the status of traffic flow from the evacuated areas was not provided to GBEOC from County or State resources as part of the scenario information. The response effectiveness and realism could be enhanced for outlying areas by the inclusion of this data.

Operations in the GBEOC were terminated at 1458 when the exercise was terminated. Responders conducted a very forthright and critical self-assessment of their performance. Overall the response demonstrated by the GBEOC staff, GBFD, and Grover Beach Police Department indicated a very motivated, enthusiastic and professional response capability. Significant facility upgrades to the GBEOC and Dispatch Center are due to be completed with a facility modification in the near future. This should enhance the already good capabilities of the responders in Grover Beach. Noteworthy Practices and Opportunities for Improvement are listed below.

NOTEWORTHY PRACTICES

1. All responders in the GBEOC and the Dispatch Center displayed excellent teamwork skills.
2. The Grover Beach Police Department effectively used to exercise as an opportunity to provide additional training and experience to several alternates in EOC positions and Dispatch Center operators.
3. The GBEOC staff demonstrated excellent forward-looking planning.

4. Excellent use of existing resources and planning for future needed resources was observed during all stages of the exercise.
5. Volunteer forces available to GBEOC were effectively and innovatively used.
6. Use of checklists and procedures was excellent by all response elements.

OPPORTUNITIES FOR IMPROVEMENT

1. Tracking of resources available needs to be improved by use of an action item tracking system to ensure GBEOC Fire, Police, and Public Works capabilities are fully understood.
2. Use of a formal logkeeping capability is needed.
3. Media releases generated by the GBEOC must be coordinated with the SLO County EOC prior to being issued.
4. A map to address door-to-door evacuation status check should be formalized and made a permanent fixture for city operations.
5. The ESD needs to be more aggressive in gathering event information when the SLOCEOC is slow or deficient in providing the information needed to conduct operations in Grover Beach.

