



FEMA

MAR 04 2004

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

Dear Mr. Mallett:

On April 30, 2003, and June 4, 2003, the Department of Homeland Security's Federal Emergency Management Agency Region IX evaluated the Camp Roberts Reception and Care Center and the El Chorro Emergency Worker Monitoring and Decontamination Center Drills for the Diablo Canyon Power Plant (DCPP). The purpose of these drills was to assess the level of State and local preparedness in responding to a radiological emergency.

I have enclosed a copy of the final report for your records. One issue was identified, and we will monitor the correction of this issue. We have determined that based on the overall results of the drills, there is reasonable assurance 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. The level of preparedness and adequacy in 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 well demonstrated. 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.

If you have any questions or need additional information, please contact me at (510) 627-7100, or your staff may contact Mr. Kenneth Chin, Regional Assistance Committee Chair, at (510) 627-7122.

Sincerely,

A handwritten signature in black ink that reads "Jeff Griffin".

for
Jeff Griffin
Regional Director

Enclosure

cc: Ms. Vanessa Quinn, FEMA HQ
Mr. Eric Weiss, NRC HQ



Final Report
Camp Roberts Reception and Care Center
Drill and El Chorro Emergency Worker
Monitoring and Decontamination Center
Drill

DIABLO CANYON POWER PLANT

Licensee: Pacific Gas and Electric Company

Drill Dates: April 30, 2003
June 4, 2003

Report Date: February 19, 2004

FEDERAL EMERGENCY MANAGEMENT AGENCY
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I. EXECUTIVE SUMMARY

On April 30, 2003, and June 4, 2003, respectively, the Camp Roberts Reception and Care Center and the El Chorro Emergency Worker Monitoring and Decontamination Center Drills were conducted in the emergency planning zone (EPZ) around the Diablo Canyon Power Plant. The purpose of the drills was to assess the level of local and State preparedness in responding to a radiological emergency. The drills were held in accordance with FEMA's policies and guidance concerning the exercise of local and State radiological emergency response plans and procedures.

The most recent previous plume pathway exercise at this site was conducted on October 21, 2002. The qualifying emergency preparedness exercise was conducted on August 19, 1981. The most recent drill for the Camp Roberts Reception and Care Center was conducted on April 28, 1999, and for the El Chorro Emergency Worker Monitoring and Decontamination Center on June 16, 1999.

FEMA wishes to acknowledge the efforts of the many individuals from San Luis Obispo County, the State of California, the volunteer organizations, and the private organizations who participated in these drills.

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.

This report contains the final evaluation of these drills.

The State and local organizations, except where noted in this report, demonstrated knowledge of their emergency response plans and procedures and adequately implemented them. There was one Area Requiring Corrective Action (ARCA) identified as a result of the Camp Roberts Reception and Care Center drill; the ARCA was corrected during the El Chorro Emergency Worker Monitoring and Decontamination Center drill. One ARCA from the 1999 Camp Roberts Reception and Care Center remains uncorrected, and five ARCAs from 1999 drills were corrected.

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 on April 30, 2003, and June 4, 2003, respectively, the Camp Roberts Reception and Care Center and the El Chorro Emergency Worker Monitoring and Decontamination Center Drills, 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 Radiological Emergency Preparedness: Exercise Evaluation Methodology, April, 2002; and
- FEMA Guidance Memoranda MS-1, "Medical Services, " November, 1986.

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

Section V of this report, entitled "Evaluation and Results," presents detailed information on the demonstration of applicable exercise criteria 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 Camp Roberts Drill on April 30, 2003, and the El Chorro Drill on June 4, 2003, 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 that 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 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:

Cities: Arroyo Grande; Grover Beach; Morro Bay; Pismo Beach; and San Luis Obispo.

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

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 Camp Roberts Drill on April 30, 2003, and the El Chorro Drill on June 4, 2003.

STATE OF CALIFORNIA

California Conservation Corps
California National Guard-Camp Roberts
Department of Health Services
Governor's Office of Emergency Services

RISK JURISDICTION

County of San Luis Obispo
Animal Services
Department of Social Services
Fire Department
Health Agency
Behavioral Health Division
Office of Emergency Services
Sheriff's Office

PRIVATE/VOLUNTEER ORGANIZATIONS

Amateur Radio Emergency Services/Radio Amateur Civil Emergency Services
American Red Cross-San Luis Obispo County Chapter
Diablo Canyon Power Plant
Paso Robles High School

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 Camp Roberts Drill on April 30, 2003, and the El Chorro Drill on June 4, 2003, 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 evaluation area criteria contained in the FEMA REP Program Manual. Detailed information on the exercise evaluation area criteria and the extent-of-play agreement used in this exercise are found in Appendix 3 of this report.

A. Summary Results of Exercise Evaluation- Table 1

The matrix presented in Table 1, on the following page(s), presents the status of all exercise evaluation area criteria from the FEMA REP Program Manual that were scheduled for demonstration during this exercise by all participating jurisdictions and functional entities. Exercise evaluation area criteria are listed by number and the demonstration status of those evaluation area criteria 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)

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 evaluation area criteria 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 evaluation area criteria 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 evaluation area criteria 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 evaluation area criteria 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 that 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 the FEMA REP Program Manual as "...an observed or identified inadequacy of organizational performance in an exercise that could cause a finding that off-site 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 the FEMA REP Program Manual, 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.

Evaluation Area Criterion - A letter and number corresponding to the criteria in the FEMA REP Program Manual.

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 2
ISSUES
APRIL 30, 2003, CAMP ROBERTS RECEPTION AND CARE CENTER DRILL
JUNE 4, 2003, EL CHORRO EMERGENCY WORKER MONITORING AND
DECONTAMINATION CENTER DRILL**

LOCATION	NEW ISSUE(S)	PREVIOUS ISSUE(S) RESOLVED	PREVIOUS ISSUE(S) UNRESOLVED
Camp Roberts Reception and Care Center	19-03-6.a.1-A-1	19-99-5-A-1 19-99-18-A-2 19-99-18-A-3 19-99-18-A-5	19-99-18-A-4
El Chorro Emergency Worker Monitoring and Decontamination Center	NONE	19-99-22-A-6 19-03-6.a.1-A-1	NONE

o CAMP ROBERTS RECEPTION AND CARE CENTER

The County of San Luis Obispo in support of the Diablo Canyon Power Plant (DCPP) off-site response organization, held a drill at Camp Roberts on April 30, 2003, to demonstrate the adequacy of the radiological monitoring, decontamination and registration of evacuees, and for congregate care of evacuees. In response to a radiological event at DCPP, emergency response plans provide for a possible northerly evacuation of the residents of the Basic Emergency Planning Zone into Monterey County. In such a contingency, vehicles will be directed to the Monitoring and Decontamination Center at Camp Roberts off Highway 101. There, the vehicles and their passengers will be monitored and decontaminated, if necessary.

o DETAIL

There were five criteria established for demonstration, observation and evaluation at the Camp Roberts Monitoring and Decontamination Center. Four criteria were met, and an ARCA was identified for one criterion. Six ARCAs from the 1999 drill were corrected, and one remains uncorrected. Two periods to monitor six individuals were timed; one was done at the Registration Center and one at the Evacuee Monitoring and Decontamination Center. The average processing time was ten seconds per individual (the result of 45 seconds for one and 65 seconds for the other). Based on this average time, two portal monitors would be necessary to monitor 20% of the expected population within 12 hours.

The drill was held out-of-sequence and the original time line was adjusted to provide a drill scenario that was initiated by a County Health Officer (CHO) decision to activate the Camp Roberts Facility at 0504 during an Emergency Classification Level of Site Area Emergency. The CHO then carried out his notification responsibilities including DCPP, the County Health Agency (CHA) and the County Department of Social Services (DSS). As planned, this would have initiated the activation, notification and operation of the Camp Roberts Facility.

The necessary supplies for the different Camp Roberts Facilities utilized by the County Response Team are stored in the San Luis Obispo area and the drill implementation allowed for the pre-staging of the necessary supplies at Camp Roberts. Necessary personnel arrived as pre-arranged between 0730 and 0800 and setup commenced upon their arrival. The drill was scheduled to begin at 1000.

The Drill was started after a safety and scenario briefing was provided to all participants by the Drill controllers and the specific facility controller determined that the facilities drill personnel were ready. The Drill started with the Vehicle Monitoring function and the Reception Center registration function.

Communications equipment was adequately demonstrated. The primary communication system in all functional areas except vehicle monitoring was landline telephones connected through the Camp Roberts PBX telephone system. All functional areas utilized 16 channel Motorola model GP 300 county radio net hand held radios. This communications system was used for communications among all functional areas. Amateur Radio Emergency Services/Radio Amateur Civil Emergency

Services (ARES/RACES) were available to provide additional communications systems.

Primary and backup communications were functional at the commencement of the exercise, communications systems were checked, and there were no communications failures. Communications systems were managed in support of emergency operations.

The capability to provide equipment and supplies sufficient to support monitoring/ decontamination activities, registration, and temporary care of evacuees at the Camp Roberts in support of a potential emergency at the DCPD was adequately demonstrated.

This facility is located approximately 40 miles from DCPD. All Emergency Workers (Emergency workers) from the various functional areas were issued a Radiation Detection Corporation thermoluminescent dosimeter (TLD) and a kit containing a low range CD-V138 (0-200 mR) self-reading dosimeter (SRD), a card for recording SRD readings, one bottle containing fourteen potassium iodide (KI) tablets (expiration date of February 2005), and a package insert containing instructions for administration (including contraindications) of the KI. Additionally, each team member was issued a copy of Emergency Worker Exposure Control (EWEC) Checklist (EWEC-3). The Emergency workers were instructed to return their dosimetry/KI kits back to the Evacuee Monitoring Decontamination Center Administrative Building at the end of their duty day.

In accordance with the Extent-Of-Play Agreement, instrument, equipment, and supplies were pre-staged and available in labeled boxes (kits). Inventory verification of procedure-specified equipment and supplies was performed. All specified items were present. Additional supplies were available, as needed, and staged at the Evacuee Monitoring Decontamination Center.

In the monitoring functional areas, directional and instructional signs indicated the flow from one functional area to another. Contaminated waste receptacles were lined with yellow/magenta bags labeled "Caution Radioactive Material."

A sufficient supply of various forms and handouts utilized by the monitoring team members was available. Sufficient quantities and a variety of sizes of anti contamination clothing, overboots (booties) and gloves, in addition to quantities of "Tyvex" jump suits, booties, towels, decontamination brushes, and soaps were also available in the decontamination center.

There were four portal monitors TSA Systems Ltd. portable portal monitors (PPM), model TPM-903, two of which were available at the Registration Monitoring Area and two at the Initial Monitoring Point outside the Decontamination Center. One was used to monitor evacuees arriving in transport vehicles and the other was available as a backup at each of the two monitoring points. All PPM units were operationally checked prior to commencement of the drill. Thirteen CDV 700 survey meters equipped with side window Geiger-Muller (GM), open side-window probes were available for the various functional monitoring areas. The CDV 700 instruments were primarily used inside the decontamination center and at the vehicle monitoring point. In addition, the CDV 700 survey meters were available for use in incidental monitoring of hands, areas, and/or equipment as necessary in all the functional areas.

Five canopies were set up to provide shade: two each at the portable portal monitoring areas and one at the vehicle monitoring point. These canopies provided weather protection and shade for equipment and evacuees.

The lead monitors/managers at the various monitoring functional areas carried a two-way radio (Motorola Radius GP-300) for communications with other functional areas and County command personnel. This radio served as the primary means of communication. Backup communication was provided by two ARES/RACES personnel. Landline telephones were also available in all fixed facilities at Camp Roberts. The operability of both primary and secondary communications was demonstrated.

Traffic and access control at Camp Roberts were successfully demonstrated by greeters, monitors, and the California Conservation Corps (CCC).

Orange and white barricades, orange traffic cones, and yellow-and-magenta radiation barrier tape delineated paths for evacuees to follow in the functional areas and the evacuee monitoring area points. The ground and sidewalk were covered with butcher paper under the portal monitors. This paper was replaced whenever an evacuee was determined to be contaminated.

The facilities utilized for the registration and congregate care of evacuees included an administration building, registration building, block manager building, three barracks, a dining hall, and recreation hall equipped in accordance with the Extent-of-Play Agreement. Adequate office equipment, including tables, desks, chairs, and file cabinets was available in all administrative buildings. The dining facility was fully equipped for serving hot meals to evacuees. The three barracks contained restrooms/shower facilities and were furnished with beds and sheets/blankets drawn from a nearby supply building. All buildings contained adequate electrical, heating/cooling and sanitation equipment.

VEHICLE MONITORING

The capability to provide space, adequate resources, and trained personnel for monitoring of evacuee vehicles was demonstrated by a team of six members of the DCP. The demonstration took place at the procedure-designated vehicle monitoring area within the boundaries of the Camp Roberts military reservation. Team members were employees of the DCP who had received specific training in the plans and procedures to be followed during evacuation of the general public from affected Protective Action Zones following an incident at the DCP involving radioactivity release.

Team members were pre-staged at the Camp Roberts facility in accordance with the Extent-of-Play. At about 0730, the team obtained from the Decontamination Center its pre-packaged kits containing all supplies and equipment needed to set up the vehicle monitoring functional area, about ¾ mile north of the Decontamination Center. At 0745, it began set-up of the functional area, which was complete and ready for use at 0820. The team, along with all other participants, then received a

safety briefing by County CHA and was subsequently directed back to the Decontamination Center where team members received procedure-prescribed communications equipment and dosimetry.

The capability to continuously monitor and control radiation exposure to emergency workers was demonstrated by seven monitors and one ARES/RACES radio operator. At the Decontamination Center, each team member was assigned a Radiation Detection Corporation TLD exhibiting an issue date of January 17, 2003 and a kit containing the following: one 0-200 mR CD-V138 SRD, a Field Exposure Log card on which to record periodic field readings of the SRD, one bottle of fourteen 30-milligram KI tablets (expiration date – February 2005), and a package insert specifying pertinent instructions and information relative to KI ingestion. Team members also received a copy of the EWEC Checklist (EWEC-3) from the County Emergency Response Plan Standard Operating Procedure (SOP) III.06 HP-11, which details actions to be taken by team members and specifies radiation exposure limits, reporting limits, and use of appropriate forms and/or logs. Team members zeroed their own SRDs by use of one of several CD V-750 (Model 5b) dosimeter chargers, all of which were shown to be in operating condition, and filled out the required Field Exposure Log card.

Both the bus driver transporting potentially-contaminated evacuees to the Evacuee Decontamination Center and the driver transporting the evacuees free of contamination from the Evacuee Decontamination Center to the Registration Facility had the appropriate dosimetry (TLD and SRD). This corrects a planning issue from the 1995 drill.

The team then returned to the vehicle monitoring area and, following checkout of their CD V-700 portable survey meters, they notified County command officials that the vehicle monitoring area was operational and ready to receive and process evacuees, at approximately 1015.

Six CD V-700 portable survey meters with attached side-window probes were available for use in the vehicle monitoring area. New batteries were installed in the instruments, and all instruments were checked for operability and proper response. An undesignated radioactive check source affixed to the side of each instrument was used to determine if the instrument responded within a specified range in counts per minute (cpm). All instruments were found to be operable and responding within the specified range and, according to an attached label, had been last calibrated March 20, 2003.

The lead monitor at the vehicle monitoring station carried a two-way radio (Motorola Radius GP-300) for communication with other functional areas and County command officials. This radio served as the primary means of communication. Backup was provided by two ARES/RACES volunteers (call signs N6TPY and WA6TYJ) using their standard and universal radio communication equipment. Operability of primary and backup communications was demonstrated.

The adequacy of procedures, facilities, equipment, and personnel for the radiological monitoring of vehicles was demonstrated. Team members began monitoring of arriving mock-evacuee vehicles at approximately 1020. One member of the team was designated to greet arriving evacuees. He instructed the drivers on how to proceed to the monitoring location, verbally briefed them on what to expect, and gave them a handout entitled "Welcome to Camp Roberts Congregate Care Center." He carried a CD V-700 survey meter with which he obtained background readings at 30-minute intervals. A sign which read "Stop Here/Turn off Your Engine/Stay in Your Vehicle" was posted in both English and Spanish at the entrance to the monitoring lanes.

Vehicles were monitored by use of large-area wipes that were checked by use of the CD V-700 survey meter for contamination. Survey meter probes were covered with plastic, in accordance with procedures. Areas of vehicles checked were hoods, trunk lids, roofs, tires, and wheel areas, in accordance with procedures. Contaminated wipes were disposed of in a marked "Contaminated Waste" receptacle. Receptacles for contaminated waste and clean waste were provided. Both were marked only in black letters. The contaminated-waste receptacle should be clearly identified by use of a magenta-and-yellow radioactive-waste symbol for future use, to reduce the likelihood of improper disposal of contaminated waste to the clean-waste receptacle, and vice-versa.

Following monitoring of their vehicle for contamination, drivers were provided with a color-coded handout, dependent on whether their vehicle was determined (designated by the controller) to be clean (green) or contaminated (yellow). Drivers of clean vehicles were verbally instructed concerning the route to be taken to the Registration Building personnel monitoring area. All drivers were asked to be sure to read the handouts provided.

Drivers of contaminated vehicles were verbally instructed by the lead team member to turn left out of the monitoring area into a pre-designated contaminated-vehicle parking area where they would be transported by bus to the Decontamination Center personnel monitoring area. All drivers were asked to be sure to read the handouts provided. The first 3 vehicles parked in the lot and locked their vehicles. They immediately boarded the bus. The only instructions given by the bus driver were to sit apart on the bus.

Another car drove into the contaminated-vehicle parking area just as bus was leaving. The driver parked and locked his vehicle and waited for the bus to return. Several more vehicles drove in and the drivers did the same. There was no one in the contaminated-vehicle parking area to ensure the drivers followed the directions on the handout, and to assist the drivers or answer any of their concerns while they waited for the bus. The bus returned about 15 minutes after it had left and transported this next group of drivers to the Decontamination Center.

Handouts given to contaminated vehicle drivers were left on the dashboard of the parked and locked vehicles. This action corrected ARCA #19-99-5-A-2.

Team members were aware of their decontamination threshold (200 cpm above background), their maximum individual exposure limit (1000 mR), their incremental reporting levels (250 mR, 500 mR, 750 mR) of exposure as accumulated on their SRDs, and the requirement to read and record the

readings of their SRDs at least hourly intervals. (This demonstrated knowledge corrected ARCA #19-99-5-A-1. The incremental exposures reporting levels and mission dose limits have been changed.)

A total of 17 mock-evacuee vehicles were monitored, seven of which were designated by the controller to be contaminated. Monitoring time per vehicle averaged approximately two minutes, counting transition time between vehicles. At this rate, it would require five teams (five monitoring lanes) of two monitors per lane to monitor the planning estimate of 1688 arriving- evacuee vehicles in a 12-hour period. Although only six monitors utilizing two monitoring lanes participated in this exercise, the lead monitoring team member stated that at least 16 persons were trained to capably act as vehicle monitors.

Team members simulated the use of anti-contamination protective clothing during the exercise. However, one member capably demonstrated donning and doffing of protective clothing out-of-sequence at the end of the exercise, which, for the vehicle monitoring function, was at approximately 1100.

The one planning issue identified during the April 28, 1999, Drill relative to vehicle monitoring has not been sufficiently addressed. Although the vehicle monitoring team knew that they would proceed to the Decontamination Center for decontamination if they were found contaminated during the required post-activity of monitoring themselves, paragraph 2.10 of the Vehicle Monitor Checklist – Congregate Care on page 10 of SOP III.06 HP-6 entitled "Vehicle Monitoring," does not provide clear and detailed instruction on what they should do if they are contaminated. As stated in this planning issue, "the instructions should be incorporated into all SOPs requiring the whole-body survey at the completion of removing the anti-Cs."

Throughout the exercise, vehicle monitoring team members exhibited excellent knowledge of monitoring techniques, they showed commendable interest in and enthusiasm for the work, and they demonstrated sensitivity to the need to alleviate apprehensions that arriving evacuees might have under stressful conditions.

EVACUEE MONITORING AND DECONTAMINATION CENTER

The capability to continuously monitor and control radiation exposure to emergency workers was demonstrated. Dosimetry was issued at the Evacuee Monitoring and Decontamination Center Administrative Building. Each emergency worker was issued a Radiation Detection Corporation TLD, a CDV 138 SRD (0 to 200 mR), a bottle containing fourteen 30 KI tablets and a THYRO-BLOC package insert. The KI had an expiration date of February 2005 and the THYRO-BLOC package insert provided information concerning why, how, and when to take KI, and possible side effects. There was not an orderly issuance of dosimetry by functional area, which delayed the activation of functional areas. It is recommended that the dosimetry issue be prioritized by functional area (i.e., first Vehicle Monitoring, then Registration Monitoring, and then Monitoring and Decontamination).

The SRDs were zeroed using a CDV 750 model 5B operating SRD charger. The TLD serial number along with pertinent personal data were entered on Form CC-1, "PERSONNEL ROSTER/EXPOSURE LOG NPPERP 08/02," for later assignment of total dose to the user. Initial (start) and ending SRD reading were entered on "field exposure log for low range dosimeters (CDV 138) 0-200 mR" (blue card) along with the date of use, time of reading, net reading, and total exposure. Pertinent personal information and the TLD serial number were entered on the front of the log. A space was also available to log date and time of KI ingestion.

Emergency workers also were issued an "EWEC-3-EMERGENCY WORKER EXPOSURE CONTROL CHECKLIST," which describes the contents of an EWEC kit, how to charge an SRD, a pre-field checklist and precautions, radiation exposure tracking and emergency worker exposure guidelines. Emergency workers were instructed to read their SRDs at one-hour intervals.

Some emergency workers did not charge their SRDs before exiting the issue point. While this requirement is identified in the EWEC-3 checklist, emergency workers should be reminded to read and initial each item on the EWEC-3 checklist.

Emergency workers were aware of the requirement to report to their Command Center when their total exposure was 250 mR, 500 mR, 750 mR, and 1000 mR as shown on their blue card and the administrative limit of 1000 mR. This corrected ARCA #19-99-5-A-1.

Initial Monitoring

The adequacy of facilities, equipment, supplies, personnel, and procedures for initial monitoring of evacuees was demonstrated. The Decontamination Barracks and Evacuee Monitoring Station was established at buildings 6315 and 6316 at Camp Roberts, California. There was appropriate space and adequate resources for all operations. The monitoring area was set up in front of the Decontamination Barracks (building 6316) in accordance with the diagrams in the Emergency Response Plan and SOPs.

The evacuee monitoring area was staffed by volunteers from DCP. They were working under the oversight of the California Department of Health Services (DHS). A total of eight evacuees were sent to this location. They were from DCP and the San Luis Obispo Chapter of the American Red Cross (ARC).

Three radiation monitoring personnel plus one supervisor were assigned to the evacuee monitoring area. They have all been cross-trained so they are able to fill in for each other. The supervisor is a full time radiation protection engineer.

All emergency workers at this location had been issued personal dosimetry packages that included CDV 138 SRDs, "Radiation Detection Corporation" TLDs (issue date 01/17/03), KI tablets with information sheets (expiration date 2/05), blue exposure record cards, and EWEC Checklists which included exposure limits and instructions. All dosimetry was issued from Decontamination

Administration in building 6315, and was turned in to the same location at the conclusion of activities.

Contamination Control of the monitoring station was maintained by covering areas under the portal monitors with butcher paper. Use of yellow and magenta radiation barrier tape, orange cones and orange and white barricades delineated walkways. Emergency workers wore latex gloves and plastic booties according to their procedures and checklists. Workers on the potentially-contaminated side wore two pair of gloves, and those on the clean side wore one pair. This corrected ARCA #19-99-18-A-5 from the 1999 Drill.

One trash can was lined with a heavy yellow plastic bag marked "CAUTION, RADIOACTIVE MATERIAL." This container was monitored periodically with a survey meter, which was calibrated to read cpm. The supervisor instructed his personnel that the bag was to be replaced whenever the readings rose to double background. This would prevent false positive readings on the portal monitor.

One Thermo-Electron TPM 903 A Portal Monitor (Serial Number 903001) was set up to screen evacuees after they arrived from the contaminated vehicle parking lot. A second TPM 903 (Serial Number 903002) was also set up as a standby. Functional checks were performed on both portal monitors with a source of known strength (1 microcurie Cesium-137) in accordance with a checklist in the operating procedures. This resolved Planning Issues 3 and 4 from the 1999 Drill. Both portal monitors had manufacture dates of 7/02 and performance verification dates of 2-26-03 with due dates of 5-26-03. These verifications are performed quarterly. Two CDV Model 700 6B Survey Meters (Serial Numbers 57726 and 72618) with GM Probes were set up to survey potentially contaminated items. These survey meters were operationally checked. One was placed on the clean side of the area, while the other was placed on the potentially contaminated side. The CDV 700s had been calibrated on March 20, 2003. The uprights of the portal monitors and probes of the survey meters were covered with transparent plastic wrap.

The Drill started with the Vehicle Monitoring function and the Reception Center registration function. Individuals in contaminated vehicles and individuals that alarmed the portal monitor set up at Registration were brought by bus to the Reception Center Monitoring and Decontamination Facilities. These evacuees were then monitored with the use of the portal monitor.

The bus/van routes for transporting the contaminated and uncontaminated evacuees are now proceduralized. The van that drove to the rear of the Evacuee Decontamination Center to pick up the evacuees free of contamination did not drive over the same roadway that had been used by the bus transporting potentially-contaminated evacuees from the Contaminated Parking Area to the Evacuee Decontamination Center. This corrected a planning issue from the 1995 drill.

Evacuees were directed to walk through the portal monitor and stop on the butcher paper to await further instructions. When the alarm on the portal monitor sounded, the evacuee was instructed to back up to the five-foot line, and then reenter the monitor. A second alarm resulted in the evacuee being directed into the decontamination barracks. Clean evacuees had their left hand stamped.

"CLEAN" and were then directed to a bus that transported them to the reception center. A total of nine evacuees were monitored.

Whenever an evacuee was determined to be contaminated, the butcher paper was changed, with the removed paper being disposed of in the "Contaminated Materials" receptacle. Personnel who handled the paper also changed their gloves – outer pair only on the contaminated side. On one occasion, the monitor on the clean side picked up a clean sheet of butcher paper before changing his gloves. The monitor on the other side immediately caught this and advised the other person to dispose of the paper in his hands, change his gloves and then obtain a clean piece of paper. This action demonstrated excellent teamwork and alertness on the part of the emergency workers.

Evacuee Decontamination and Radiological Monitoring of Evacuee Possessions

The adequacy of facilities, equipment, supplies, personnel, and procedures for the decontamination of evacuees was not demonstrated. Sixteen Emergency workers were assigned to the Evacuee Monitoring and Decontamination team. Prior to activation, all Emergency workers from the various monitoring functional areas reported to the decontamination center to be issued their EWEC dosimetry kits. The dosimetry kits consisted of a Radiation Detection Corporation TLD (issue date January 17, 2003) and a kit containing a low-range CD-V138 (0-200 mR) SRD, a "Field Exposure Log for Low Range Dosimeter" card for recording SRD readings, one bottle containing fourteen KI tablets (expiration date of February 2005), and a package insert containing instructions for administration (including contraindications) of the KI. Each team member was also issued a copy of "EWEC Checklist" (EWEC-3). The Emergency workers were also instructed to zero their SRDs and to return their EWEC kits to the Evacuee Monitoring Decontamination Center Administrative Building at the end of their duty day.

Prior to activating the decontamination center the radiation monitoring personnel performed the operational check of five CDV 700 survey meters (calibrated 20 March 2003 due; 20 March 2004) with beta-gamma, open side-window probes. Five radiation monitoring personnel performed the instrument check in conjunction with the Monitoring Supervisor providing direction utilizing Checklist-5 step 1.6 in SOPs SLO HP-7 and 9. During the operational check, two survey meters were found to be responding improperly. One indicated a low response to the built-in check source and was verified with another check source to be operating properly; however, they noted that the built-in check source needed to be checked and/or repaired/replaced. The second unit was providing an erratic response and was tagged and removed from service.

The team minimized cross-contamination in the decontamination operational area by establishing a "clean" area and contaminated (dirty) area, in accordance with the diagram in the plan. Additionally, the probes on the CDV 700 meters were covered with plastic.

There was an established traffic flow within the facility. The "dirty" areas had signs placed around the area to indicate the function of each station. In addition, the team placed yellow-and-magenta tape on the floor to indicate "dirty" and "clean" zones within the facility. At the location of the entry

point, the radiation monitors frequently mopped the monitoring area with a Massillin cloth mop to minimize cross-contamination to the next evacuee. However, the entrance to the decontamination area was a narrow doorway divided in half, with the "clean" and "dirty" boundary indicated by a line of yellow-and-magenta tape, which did not provide an effective barrier to prevent cross-contamination. This problem is recognized by the staff as a "bottle-neck," which should be resolved. The entrance to the decontamination area should be widened or an exit point in the "clean" side of the decontamination area should be established. Therefore ARCA #19-99-18-A-4 was not adequately corrected.

Several levels of protective clothing were established, in accordance with the operating procedure. To minimize cross-contamination from the contaminated evacuees, the radiation monitor (entry point and decontamination area) wore overboots (booties), and double-layer gloves; team members in the "clean" areas of the decontamination center wore booties and a single layer of gloves; and the decontamination specialists wore full anti-contamination clothing, booties, and double gloves as required by the HP-7 operating procedure. The decontamination specialists followed Checklist 8 "Anti Contamination Clothing Checklist" for donning and removing the protective clothing. All waste receptacles were lined with yellow-and-magenta bags indicating "Caution Radioactive Material". The rad-waste receptacles located at the entry point were monitored routinely and removed if the count rate of the collected waste significantly raised the background of the area.

Decontamination Center processing was initiated by the receipt of a contaminated evacuee at the entry point. A contaminated evacuee was identified at the initial monitoring point portal monitors. After entering the center, the evacuee was interviewed by the assigned recorder registering the evacuee who completed the "Form A - Personal Data" sheet. "Form A" consisted of personal data (name, address, phone numbers, etc), accident data (location at various time during the accident), medical data, medical follow-up (2 to 3 weeks later), checkout (personal items) and the evacuee's signature (provided after decontamination). At the conclusion of the interview, the radiation monitoring team members (2) began the body frisk of the evacuee to identify areas of contamination. The decontamination action threshold was a response of 200 cpm above background or greater on the CDV 700 survey meter.

Prior to conducting the body frisk of the evacuee, any personal property was surrendered and placed in a holding area until the completion of the body scan. Before the next contaminated evacuee entered the decontamination center, the personal property was monitored and decontaminated, if necessary, in accordance with the SOP in HP-7. This corrected ARCA #19-99-18-A-3.

During frisking of evacuees with a CDV 700 survey meter, areas of contamination were identified and called out to the recorders to mark and label the body map on "Form B - Clothing and Body Contamination Report." FEMA guidance specifies that an adequate frisk of an evacuee using a CDV 700 survey meter should take, at a minimum, approximately 19 minutes. The two radiation monitors located at the entry point paired up (one scanning the front of the evacuee and the other scanning the back), thus reducing the time necessary to conduct a thorough scan. During the body frisking of the evacuees, it was noted that the procedure was not being conducted properly. The scan rate was too fast, and the probe was held too far away from the body. In consultation with the lead controller, the

monitoring supervisor was notified and re-training was conducted. The radiation supervisor maintained a post on the "clean" side of the decontamination center, conducted re-training, maintained that post, and continued to coach the monitors throughout the remainder of the drill. However, the monitors never performed an adequate frisk on any of the evacuees.

Revision of the decontamination procedure and training method is one solution to this problem. Training should be conducted to present a more realistic scenario to the trainee. This can be accomplished by placing a small radiological check source (close to the action level threshold of 200 cpm or above background) on a table under a cover or on a mannequin. This type of training will reinforce the appropriate scanning rate on the trainee. An additional recommendation is to acquire updated and more efficient survey meters:

In accordance with SOPs, contaminated evacuees were routed to the decontamination specialist, after the completion of the body frisk, to initiate the decontamination process. Decontamination consisted of removing the clothing of the evacuee from the area where contamination was identified (for localized decontamination), or all of the clothing when a shower was indicated as the preferred method of decontamination, and the evacuee was then provided with modesty clothing. The decontamination team processed five evacuees during the drill. The first mock evacuee (EM-1) indicated contamination on the feet. Shoes and socks were removed and the feet washed. The second evacuee (EM-2) had contamination indicated on the entire head and neck, the back, and hands, and again localized decontamination methods were employed when a shower was indicated. The third evacuee had contamination indicated on the back of the head and the palms of both hands, but at levels lower than the prescribed action level (>200 cpm). She was led through the "clean" side of the center, her left hand stamped "clean", provided with a form indicating "FEMA Advises to bathe and change clothing within 3 days", and then directed to the "clean" bus to be transported to the registration area. The fourth evacuee had contamination indicated from the chest up (front and back) and once again localized decontamination was employed; however a shower would have been the preferred decontamination method. The final evacuee (EM-8) had contamination indicated on the back and stomach, legs and feet (front and back) for which the decontamination method utilized was showering. Upon entering the shower he was told to use soap, rinse, dry off, and proceed to the monitoring point to verify decontamination. Inappropriate decontamination methods were utilized on two occasions, in addition to not enough direction was given to the evacuee. The HP-7 operating procedure has several guides describing various decontamination methods. These should be changed to checklists for use by the decontamination specialists. The decontamination specialists should provide more verbal direction and encouragement to the evacuees during the process. A guide/checklist should also be developed to provide instructions to the specialists as to which decontamination method be employed based on the location of the contamination on the evacuee.

After decontamination, a radiation monitor using a CDV 700 survey meter monitored the evacuee. The evacuee approached the tape line of the "dirty" area, and the radiation monitor was located on the other side of the tape line in the "clean" area. The action level indicating successful decontamination was a count rate less than 200 cpm. Upon being declared decontaminated, the evacuee was provided a disposable "Tyvec" jump suit, received a "clean" stamp on the left hand, provided with a form indicating "FEMA Advises to bathe and change clothing within 3 day"; and

then directed to the "clean" bus to be transported to the registration area.

Through interview, the Decontamination Center Manager stated that three decontamination efforts would be attempted for the evacuee. If the evacuee was not successfully decontaminated, he/she would be held in the area for transport to a medical facility. The Health Care Group Supervisor would coordinate the transport of the contaminated evacuee.

The Decontamination Center Manager gave a pre-operational briefing to the team members on the duties for the functional area they were assigned. In addition, the team members in the decontamination center were acquainted with their duties and responsibilities and their plan/procedures. In addition to being familiar with their duties, the team members were quite caring to the evacuees and responded to their concerns in a professional and informative manner.

REGISTRATION CENTER

Initial Monitoring

The capability to continuously monitor and control radiation exposure to emergency workers was successfully demonstrated by the Evacuee Monitoring Team at the Registration Center. Emergency workers were directed to go to the Evacuee Monitoring and Decontamination Center Administrative Building where dosimetry was issued. Each emergency worker was issued a Radiation Detection Corporation TLD, a CDV 138 SRD (0 to 200 mR), a bottle containing fourteen 30-milligram KI tablets and a THYRO-BLOC package insert. The KI had an expiration date of February 2005, and the THYRO-BLOC package insert provided information concerning ingestion of KI, and possible side effects.

The SRDs were zeroed using a CDV 750 model 5B operating SRD charger. The TLD serial number along with pertinent personal data were entered on Form CC-1, "PERSONNEL ROSTER/EXPOSURE LOG NPPERP 08/02," for later assignment of total dose to the user. Initial (start) and ending SRD readings were entered on "Field Exposure Log for Low Range Dosimeters (CDV 138) 0-200 mR" (blue card) along with the date of use, time of reading, net reading, and total exposure. Pertinent personal information and the TLD serial number were entered on the front of the card. A space was also available to log date and time of KI ingestion.

Emergency workers also were issued an "EWEC-3-EMERGENCY WORKER EXPOSURE CONTROL CHECKLIST," which describes the contents of an EMERGENCY WORKER exposure control kit, how to charge an SRD, a pre-field checklist and precautions, radiation exposure tracking and EMERGENCY WORKER exposure guidelines. Emergency workers were instructed to read their SRDs at one-hour intervals. Emergency workers were aware of the requirement to report to their Command Center when their accumulated exposure reached 250 mR, 500 mR, 750 mR, 1000 mR (as shown on their blue card), and the administrative limit of 1000 mR. Emergency workers returned to their assigned location, and the monitoring area was declared operational at 1030.

The ability to monitor evacuees from non-contaminated vehicles prior to registration was adequately

demonstrated. The monitoring area was set up outside of Building 4008, the registration facility. Equipment and supplies were prepositioned, as provided for in the extent-of-play agreement, but not setup. Three knowledgeable DCPD personnel who worked together as an integrated team carried out the monitoring activity.

Two TSA Systems Ltd. Model TPM 903 PPMs, one for use in monitoring evacuees and one as a standby, were available. Both PPMs had been tested for proper operation on 2/26/03 and were due to be tested again on 5/26/03. The PPMs were set up and tested with a one-microcurie cesium-137 source, following Radiation Control Procedure RCP EM-19 "Thermo-Electron (St. Gobain) TPM-903 Portals." These actions, following RCP EM-19 and setting up the standby PPM, corrected planning issues 3 and 4 from the 1999 drill. The PPM uprights were covered with thin plastic, and a paper mat was placed at the base.

Two CDV 700 survey meters with side-window GM probes and headphones were available, if needed, for hand monitoring. Both instruments were calibrated on 3/20/03 (due 3/20/04). Batteries were placed into the instruments and checked with a radioactive source of known value in mR per hour. Instrument probes were covered with thin plastic and left in the open-window position. Supplies such as batteries, extension cords, paper mats, plastic gloves, overboots, and a "clean" hand stamp were available to support emergency operations. The supplies were stored outside the monitoring area.

The monitoring area was delineated with A-frame barricades and plastic tape and was covered with portable coverings to protect the mock-evacuees from the weather. A sign with the legend "FORM LINE FOR REGISTRATION HERE" was placed at the entrance to the monitoring area.

Twenty-seven evacuees from vehicles found free from contamination were monitored. A "greeter" wearing two pairs of plastic gloves and overboots, was positioned ten feet from the PPM. He explained to each evacuee the purpose for being monitored and how to pass through the PPM. He also answered questions and maintained control. On the other side of the PPM, a second "greeter" stamped the evacuee's left hand with an indelible "clean" stamp and directed them to the Registration area.

Since there were evacuees with simulated disabilities, the times for monitoring the evacuees varied. Therefore, twenty-one evacuees in four separate groups were timed. This provided an average time based on a mixture of evacuees with and without disabilities. An average time of 23 seconds for monitoring an evacuee was established. At this rate, twenty percent (4,557) of the 22,787 evacuees expected on a normal summer weekend could be monitored in the 12-hour time period by adding a third monitoring line.

By controller-inject the last evacuee was found to be contaminated (simulated). The individual was told to step back five feet and the pass through the PPM again. When the PPM alarm sounded (simulated) a second time, the individual was instructed to sit in a chair in the monitoring area, and as specified by procedure, the bottoms of her shoes were monitored. A controller inject indicated the shoes were clean and the evacuee was told to return to the vehicle monitoring area. The vehicle

monitoring personnel were contacted by radio and told that the evacuee was returning to the vehicle monitoring area in a blue Chevrolet pickup truck.

The paper mat at the base of the PPM was changed, and the monitor explained that if the bottoms of shoes were contaminated, a meter survey of the monitoring area would have been performed.

Registration

The capability to establish a facility for registration of evacuees with appropriate space, adequate resources, and trained personnel was successfully demonstrated at the Camp Roberts Reception and Congregate Care Center.

In accordance with County plans and procedures, operations within the registration facility are a shared responsibility between the DSS and the ARC. During this exercise the DSS staffed and performed the functions of registering evacuees and responding to disaster welfare inquiries from the County Phone Assistance Center (PAC), while the ARC staffed and provided family services, health services/first aid, and disaster mental health services. County Behavioral Health also assisted the ARC in providing mental health services to evacuees within the registration facility. Backup communications was provided by County ARES/RACES and building security and the CCC provided escort services for evacuees.

Leadership for performing registration functions was provided by a DSS Supervisor/Coordinator and Deputy. An ARC Client Distribution Supervisor provided leadership for ARC functions.

At 0900, a briefing was conducted to inform all exercise participants of the scenario for exercise play and safety precautions. Thereafter, all participants reported to their work locations within the registration facility and made final preparations for opening the facility to evacuees. The first evacuees arrived at the registration facility at 1034. Consistent with plans, all evacuees were monitored outside the entrance to the registration facility for radiation contamination. For evacuees found to be free of contamination, their left hands were stamped with a "clean" marking and they were allowed entry into the registration facility. Security outside the entry-way was provided by the CCC. Once inside the registration facility, evacuees were immediately met by the DSS Registrar Supervisor or Deputy and checked to ensure they were clean. Evacuees were then directed to a registration table. Security for ensuring no contaminated individuals were present in the registration facility was excellent throughout the duration of the exercise. At each ARC work-station, evacuees were checked for their "clean" stamp. One evacuee who entered the facility without a "clean" stamp was quickly identified and directed to immediately exit the facility.

Three registration positions were established for this exercise. At one of the positions the Registrar spoke both English and Spanish. The standard ARC Disaster Shelter Registration form was used for registration and the following questions were asked of each evacuee and answers thereto recorded on the shelter registration form:

- Are you ill, sick, or feel you need medical attention?

- Will you require assistance with lodging?
- Are you separated from your family?
- Do you have any special needs?
- Will you authorize release of information about your whereabouts?

The Registrars provided friendly and professional assistance to all evacuees and clearly explained the process and resources available to them. Once registration was completed, evacuees with no problems were directed or escorted to the rear entrance to the facility where they were met by CCC staff members, then directed to a sitting area outside the facility, and escorted in groups of approximately five evacuees to the Block Manager Headquarters Building. As soon as evacuee registration forms were completed, a copy of the form was distributed to the Disaster Welfare Inquiry (DWI) function that was located in the registration facility. A total of 35 evacuees were registered during the exercise.

Evacuees with problems were escorted or directed to the work area of the ARC Client Distribution Supervisor/Coordinator and her two assistants where the nature of the evacuee's problem was discussed. Thereafter, the evacuee was escorted to one of three functional areas established in the registration area for evacuee services – family services, health services/first aid, and disaster mental health services.

Evacuees with special needs were directed to Family Services, which was staffed, by a Supervisor and three staff members. The Supervisor assigned evacuees to a staff member and was within calling distance if a staff member needed assistance in resolving an evacuee problem. No evacuees were left unattended or waiting in line during this exercise. This corrects Planning Issue Number 6 from the April 28, 1999 exercise wherein the need for a Family Services Supervisor to oversee this function was identified.

Similarly, evacuees with medical or mental health problems were escorted or directed to the health services/first aid and disaster mental health services work areas by the ARC Client Distribution Supervisor/Coordinator and her staff. The ARC Client Distribution Supervisor/Coordinator provided oversight and assistance to all ARC functions within the registration area throughout the exercise. The scenario provided for evacuees with a variety of problems and special needs. Some of these were a blind evacuee with a seeing-eye dog, a couple with newborn twins, evacuees with medical problems, and evacuees in need of crisis counseling. The ARC staff did not encounter a problem they could not handle. This staff displayed the highest degree of professionalism and caring in dealing with evacuees and their problems.

There were no private and quiet areas for providing mental health and medical services to evacuees. All functions were performed in one large room with a high noise level throughout the exercise. This may have been an exercise artificiality as there were two rooms at the end of the building that were used by the Exercise Simulation Cell and ARES/RACES. In an actual emergency, the Simulation Cell would not exist. Also, the two-person ARES/RACES team did not need all the space that was allocated nor did it need a separate room. The layout of floor space within the Registration Building be revised to accommodate privacy for mental health and medical services

functions.

Beyond the extent-of-play agreement, the DSS tested the feasibility of locating the DWI function in the Registration Building in lieu of the Administration Building in order to improve efficiency and response to DWI queries from the PAC. This appeared to work well as the DWI staff of two DSS personnel had almost instant access to copies of evacuee registration forms after they were completed and therefore they could provide more timely responses to the PAC. It also eliminated the need to periodically send a runner with these forms to the Administration Building. Locating the DWI function in the Registration Building did not have any impact or detract from registration functions. During the exercise the DWI staff received 25 DWI queries from the PAC and were able to match five evacuees. They were able to report information on only two of the evacuees as the other three had not authorized release of information on their whereabouts (on their Disaster Shelter Registration forms).

CONGREGATE CARE

The adequacy of facilities, equipment, supplies, personnel, and procedures for congregate care of evacuees was demonstrated.

The ARC demonstrated the capability to provide congregate care for evacuees at Camp Roberts. Congregate care drill objectives were attained in accordance with American Red Cross MASS CARE – Preparedness Operations, ARC 3031. ARC staff, in partnership with other voluntary organizations, ensured that evacuees were monitored and found “clean” prior to their entering the various facilities utilized for demonstrating congregate care capabilities.

The shelter manager indicated that staff and volunteers from the San Luis Obispo Chapter of the ARC arrived at 0730 to set up equipment in each of the congregate care buildings. These buildings included: the dining hall building 4101, the barracks administration building 4121, the shelter management building 4008, and the sleeping barracks located in buildings 4104, 4105, and 4106.

The dining hall was set up with tables and snacks for staff and evacuees; it had ample space for serving meals and a large kitchen to accommodate mass care staff (six workers and one lead). The barracks administration building was used to provide evacuees with bed assignments and longer-term services on an as-needed basis. Space was adequate to provide for ten to twelve staff persons in addition to the several evacuees rotating through at various times. Functional areas with tables and chairs were established for reception and housing assignments (two workers), physical health (1 registered nurse), family services (one worker), and ARES/RACES (two workers). A private office was established for disaster mental health (two licensed workers). Additional space was provided for the CCC workers serving as “floater”/escorts.

The shelter administration building housed the functional leads for each of the services areas, and other general administrative staff including: the shelter manager (one lead), an assistant shelter manager (one worker), logistics (four workers), communications (four workers), public affairs (one worker), CCC (two workers), staffing/records and reports (three workers, one lead), health services

(one registered nurse worker and one registered nurse lead), mental health (one licensed lead), and family services (one lead). The space accommodated individual offices with phones and desks for each of the leads.

The barracks were designated according to three evacuee groups: elderly, young families with children, and single adults. Signs depicting a map of the property and FEMA bathing recommendations were posted inside the doors of the buildings. The barracks were set up with cots, sheets and blankets, and adequate space was demonstrated. Each building contained several showers, sinks, and toilets.

According to the lead for ARC staffing, ARC staff and volunteers from collaborating agencies signed in and received an orientation packet and a briefing, including an overview of staff roles, management structure, functional area telephone numbers, and a map of the property. Members of the CCC served as escorts for evacuees, information runners, and general staff support for each of the congregate care buildings. The ARES/RACES volunteers established a communications hub in the shelter administration building and provided staff support to each of the congregate care buildings. They served as an emergency communications backup system for the telephones and radios provided to the ARC logistics and management personnel. The San Luis Obispo Department of Animal Control provided a vehicle equipped with cages to house the pets of evacuees. The San Luis Obispo County Department of Behavioral Health augmented the ARC Mental Health staff, providing crisis counseling to evacuees, and general support to all ARC personnel.

The first bus of evacuees arrived at the clean vehicle area across from the registration building at 1003. At 1033, the comptroller made a radio announcement, to commence the start of the drill. The sequence for congregate care of evacuees follows. Upon completion of registration, evacuees were directed to a shady area to wait with CCC staff. When a group of approximately five evacuees had accumulated, they were instructed to line up and CCC staff escorted them to the barracks administration building. A minimum of one CCC member waited outside with evacuees, allowing two persons to enter the building at a time. In barracks administration, "clean" hand stamps were verified and evacuees were given bed assignments and additional services, if needed. As evacuees were assessed for shelter assignments, registration cards were reviewed and verified, allowing staff to gather special needs and demographic information. This brief conversation allowed evacuees to be matched with accommodations meeting their unique circumstances. The lead monitor for congregate care indicated the ARC would make arrangements at nearby hotels to accommodate persons in wheelchairs if the need presented.

ARC staff demonstrated the ability to collaborate effectively on providing assistance to evacuees as critical needs emerged. In one instance, the Block Manager was "floating" throughout the building to provide support for the various functional areas. When an evacuee revealed the need for her insulin and concern about her children and husband, none of whom were at the camp, the manager intervened, escorting the woman to Family Services. The family services technician then worked in concert with the health services nurse to help address the evacuee's problems. In order to ultimately resolve the case, the family services worker called over to her functional lead to request backup support in order to resume her work with additional evacuees. Her backup arrived in a timely

fashion and continued the casework. Upon completion of the barracks assignment, evacuees were either escorted to a service area for follow-up or accompanied by a CCC member to their assigned sleeping quarters. One CCC member was available at the intake desk at all times to escort evacuees to the barracks.

Before evacuees entered the barracks, the manager verified that each one had a "clean" stamp. He then asked evacuees to sign in, (a shelter diagram and sign in logs are included) explained the ground rules, and talked a little with them about their individual circumstances. In a subsequent interview, the shelter manager indicated the ARC policy states evacuees are responsible for their own personal items. Signs were posted, listing possessions prohibited in the barracks, e.g., knives. A mental health worker was present to support the manager with any arising issues. In one instance, an evacuee appeared at the barracks stating she was nervous about what would happen next and expressing anxiety about the well-being of her dog. The mental health worker and barracks manager worked together, explaining how she could obtain additional information on her family, describing what was available on the property in the way of meals and recreation, and offering to check on her animal for her.

The Shelter Manager indicated that in an actual event he would receive barracks census and meal counts from the mass care and barracks management leads approximately every 30 minutes. Personnel manning the various work stations were provided with detailed phone lists and phones, which they used for communicating with other buildings, seeking clarification from supervisors, and requesting backup support.

According to the Shelter Manager, resources to meet the essential needs of thousands of evacuees are stored at Camp Roberts including cots, bedding, towels, cleaning supplies, and water for bathing, cleaning and drinking. Bathrooms with showers, sinks and toilets are contained in each of the barracks buildings. The ARC congregate care monitor indicated the ARC could provide napkins, plates and utensils and utilize catering contracts for the first twenty four hours if needed, and thereafter, could partner with the Southern Baptists to provide meal preparation and/or feeding support. The shelter manager further indicated the ARC would provide comfort kits with personal hygiene products to evacuees.

The partnership between the ARC and the CCC provided structure, predictability, and continuity for evacuees. At each of the points in the sequence assistance, evacuees were handled in a compassionate manner. The CCC staff worked out an excellent system for escorting evacuees and managing the flow into the barracks administration building, leading to a calmer environment in which ARC staff could focus on providing individualized service. CCC personnel were flexible in adapting to their taskings and worked well with evacuees, demonstrating patience and genuine concern for their feelings.

Evaluation Area Criteria Met

1.d.1, 1.e.1, 3.c.1, 6.c.1

Deficiencies

None

Areas Requiring Corrective Action

19-03-6.a.1-A-1. Monitoring Technique

CONDITION: During the body frisking of the evacuees, it was noted that the procedure was being conducted improperly. The scan rate was too fast, and the probe was held too far from the body. In consultation with the lead controller, the monitoring supervisor was notified and re-training was conducted. The radiation supervisor maintained a post on the "clean" side of the decontamination center, conducted re-training, maintained that post, and continued to coach the monitors throughout the remainder of the drill. However, the monitors never performed an adequate frisk on any of the evacuees.

POSSIBLE CAUSE: Lack of experience and ineffective training might be the cause of the condition.

REFERENCE: NUREG-9654, J.10.h; J.12; K.5.a

EFFECT: If the hand-frisking process is conducted at a high rate, levels of contamination at or near the action level would not be detected. This could result in unconditional release of a contaminated individual and possible cross-contamination.

RECOMMENDATION: Conduct hand-frisking training to present a more realistic scenario to the trainee. This can be accomplished by placing a small radioactive check source (close to the action level threshold of 200 cpm above background) on a table under a cover or on a mannequin. This type of training will reinforce the appropriate scanning rate and distance. Revise the decontamination procedure and training method. An additional recommendation is to acquire updated and more efficient survey meters.

Prior Areas Requiring Corrective Action-Corrected

19-99-5-A-1. Exposure and Dose Control Limits

NUREG-0654 Reference: K.3.b

Criterion #5

Demonstration Criterion #2

1. **Description:** Neither the vehicle monitoring team members nor evacuee monitoring personnel knew the incremental exposure reporting levels of 50 mR, 100 mR, etc. or the mission dose limit of 1.25 rem

2. **Recommendation:** Ensure that all staff that are required to wear a DRD receive appropriate training and that they understand the concept of the maximum authorized mission limit and that they understand their reporting requirements. Also, emphasize these in briefings.
3. **Corrective Action:** Emergency workers were aware of the requirement to report to their Command Center when their total exposure was 250 mR, 500 mR, 750 mR, and 1000 mR as shown on their blue card and the administrative limit of 1000 mR.

19-99-18-A-2. Handouts not left on the dashboard of the monitored vehicles.

NUREG-0654 Reference: J.12

Criterion #18

Demonstration Criterion #5

1. **Description:** The handouts to indicate the vehicle had been through vehicle monitoring were not left on the dashboard of all vehicles.
2. **Recommendation:** Train the greeter at the vehicle monitoring station to verbally state this directive to the driver of each vehicle.
3. **Corrective Action:** The Handouts given to contaminated vehicle drivers were left on the dashboard of the parked and locked vehicles.

19-99-18-A-3. Confusion Regarding Personal Items

NUREG-0654 Reference: J.10.h.,12

Criterion #18

Demonstration Criterion #3

1. **Description:** An evacuee was allowed to carry a backpack into the showers. The backpack was not contaminated and the individual only had contaminated feet. Thus, a shower was not necessary and only the feet needed to be washed. But the backpack would have been cumbersome and could have become contaminated in the shower area. It should have been removed, checked again for contamination and transferred to the clean side to be picked up by the evacuee after decontamination.
2. **Recommendation:** Emphasize the adherence to SOPs regarding evacuee possessions during training.
3. **Corrective Action:** Prior to conducting the body frisk of the evacuee, any personal property was surrendered and placed in a holding area until the completion of the body scan. Before the next contaminated evacuee entered the decontamination center, the personal property was monitored and decontaminated, if necessary, in accordance with the SOP in HP-7.

19-99-18-A-5. Anti-contamination Clothing for Initial Monitors

NUREG-0654 Reference: J.10.h.,12

Criterion #18

Demonstration Criterion #1

1. **Description:** Inconsistent with personnel performing other radiation monitoring activities, the radiation monitors performing monitoring of evacuees at the Decontamination Center and Registration Center wore one pair of gloves instead of two pairs. SOP HP-14 requires the monitors performing vehicle monitoring and the public health nurses involved in the decontamination of contaminated evacuees to wear double sets of gloves, but does not refer to anti-contamination clothing required for the monitors performing the initial monitoring of evacuees. Checklist 8 of HP-7 instructs all Evacuee Decontamination Center Staff (but not staff doing the initial monitoring at the Registration Center) to don two pairs of gloves. Checklist 5 of SOP HP-7 does instruct personnel monitors to don boots and gloves, but does not specify whether they should wear one or two pairs of gloves.
2. **Recommendation:** Train all monitoring and decontamination staff to wear two sets of gloves. Revise the SOPs defining the appropriate anti contamination clothing required for the monitors performing the monitoring of evacuees at the Registration Center. This SOP should include the requirement that two sets of gloves are to be worn.
3. **Corrective Action:** Emergency workers wore latex gloves and plastic booties according to their procedures and checklists. Workers on the potentially-contaminated side wore two pair of gloves, and those on the clean side wore one pair.

Prior Areas Requiring Corrective Action-Uncorrected

19-99-18-A-4. Contamination Control

NUREG-0654 Reference: J.10.h.,12

Criterion #18

Demonstration Criterion #1

1. **Description:** There was only one portal for the shower area in the Camp Roberts barracks. The staff had been very innovative in establishing control methods for this area. Traffic was constantly controlled in the area and this opening was divided in half by a barrier tape, but this was really not an effective barrier to prevent cross-contamination. One evacuee with contaminated feet did accidentally step across the barrier. The area should have been immediately smeared and surveyed, but both inside monitors were busy.

2. **Recommendation:** Emphasize contamination control during training. Consider assigning one additional monitor in each facility to be able to immediately take care of monitoring needs resulting from possible contamination of a "clean" area. This monitor could also provide a 5 or 10 minute break for the operating monitors.

o EL CHORRO REGIONAL PARK EMERGENCY WORKER CENTER

The County of San Luis Obispo, in support of the DCPD off-site response organization, held a drill at El Chorro Regional Park on June 4, 2001, to demonstrate the adequacy of the radiological monitoring, and decontamination of emergency workers, vehicles and equipment. In response to a radiological event at DCPD, emergency response plans provide for emergency workers and their vehicles to be directed to the Emergency Worker Monitoring and Decontamination Center at El Chorro Regional Park off Highway 1. There, the vehicles and their passengers will be monitored and decontaminated, if necessary.

o DETAIL

There were four criteria established for demonstration, observation and evaluation at the El Chorro Regional Park Emergency Worker Monitoring and Decontamination Center. All criteria were met, and an ARCA from the 1999 drill was corrected. In addition, an ARCA from the 2003 Camp Roberts drill was corrected.

The instruments, equipment, and supplies were adequate to support operations and were stored in labeled containers. These containers were maintained in a single axle, enclosed van body utility trailer. This trailer was approximately eight feet wide, twelve feet long, and seven feet high with a gross vehicle weight of 2,080 pounds. The trailer was maintained in an area in close proximity to the County of San Luis Obispo Emergency Operations Center. The Parks Division of the County Department of General Services was responsible for moving the trailer to the monitoring and decontamination center.

Supplies and equipment included CDV-700 survey instruments; two portal monitors; anti-contamination clothing consisting of TYVEK coveralls, hoods, face shields, rubber boots, and gloves; detergent, water hoses with nozzles and wands, and long-handled brushes for vehicle decontamination; soap, shampoo, wash cloths, scrub brushes, towels, and temporary clothing for emergency worker decontamination; canopies to provide cover for various activities including the portal monitor and individuals waiting to be monitored; and an assortment of tables and chairs. The supply trailer also contained two collapsible buildings. Each building was approximately 10 feet wide and fourteen feet long. One of the buildings was setup and used to house the EWEC and Administration function. The other building was not setup, but was available for equipment storage or any other appropriate use if needed.

Five CDV 700 instruments with earphones were available for vehicle monitoring. However, only three were needed. Following their plans and procedures checklist (SOP, III.06, HP-6, page 11,

Vehicle Monitoring Checklist); batteries were inserted into three CDV-700 instruments, ear phones attached, the probe was covered in plastic, the background count rate was established, and the operability of each instrument was confirmed. Using the check source located on the side of each instrument and with the beta window open, each instrument registered within the range specified in the above checklist. All three instruments were within calibration dates; i.e., the first instrument was calibrated on April 1, 2003, with calibration due on April 1, 2004; the second instrument was calibrated on April 3, 2003, with calibration due on April 3, 2004; and the third instrument was calibrated on April 30, 2003, with calibration due on April 30, 2004.

Two TSA Systems Ltd. Model TPM 903 PPMs and eight CDV-700s were available for emergency worker monitoring. The PPMs were both tested for proper operation on May 26, 2003 and are due to be tested again on August 26, 2003. They were set-up following Radiation Control Procedure, RCP EM-19 Revision OA "Thermo Electron (St. Gobain) TPM-903 Portals" and tested for proper response using a one microcurie cesium-137 source calibrated on June 18, 1986. The eight CDV-700s were all calibrated on April 1, 2003 and due for calibration on April 1, 2004. The CDV-700s were set-up and tested for operability using procedures identical to those employed for vehicle monitoring.

All personnel performing emergency worker and emergency vehicle monitoring/decontamination activities registered at the EWEC desk and obtained an exposure control kit. Each kit contained one TLD (issue date January 17, 2003), one CDV-138 SRD (full scale of 200 mR), one CDV-730 SRD (full scale of 20 R), one exposure record form for each SRD, one bottle containing 14 - 130 milligram KI tablets (expiration date February 2005), a KI instruction sheet, and the EWEC Checklist.

The two SRDs assigned to each individual were consistent with the Decontamination Center Exposure Control Checklist found on page 41 of the SOP, III.06, HP-9. This checklist states that each monitoring individual is required to wear a 0-200 mR SRD and a 0-20 R SRD. This checklist is not consistent with SOP III.06, HP-9, page 70, which states that 0-200 mR SRDs are the only SRDs needed Decontamination Center staff.

Also, included in the supplies were traffic cones, various colors of tape, and barrier rope. These items were used to delineate the path for incoming emergency vehicles, separate contaminated and clean areas in the vehicle decontamination area and emergency worker monitoring and decontamination areas.

Signs were in place to guide emergency workers to the various monitoring and decontamination functional areas and the path to follow if they were found to be free of contamination.

The implementation of emergency worker exposure control was adequately demonstrated. Dosimetry was issued at the EWEC Desk set-up in the portable building at the El Chorro Regional Park Campground.

Each emergency worker was issued an EWEC Kit containing a TLD with an exchange date of 01/17/03, a CDV model 138 (0-200 mR) SRD and a CDV model 730 (0-20 R) SRD, a bottle containing fourteen 130 milligram KI tablets, a Thyro-Block package insert, Field Exposure Logs; one blue for low range and one yellow for high range SRDs and a copy of "EWEC-3 EWEC CHECKLIST "(EWEC-3) The KI had an expiration date of February 2005 and the THYRO-BLOCK package insert provided information concerning why, how and when to take KI and possible side effects.

The EWEC-3 describes the contents of the EWEC kit, how to zero an SRD, a pre-field checklist and precautions, radiation exposure tracking and emergency worker exposure guidelines. Emergency workers were instructed to read their SRDs at one-hour intervals. In addition to the one-hour intervals, the vehicle decontamination team leader instructed his team to read their SRDs after decontaminating each vehicle.

The SRDs were zeroed using a CDV 750 model 5B operating SRD charger. The TLD serial number along with pertinent personal data was entered on FORM CC-1 "PERSONNEL ROSTER/EXPOSURE LOG" for later assignment of total dose to the user. Initial (start) and ending SRD readings were entered on "FIELD EXPOSURE LOG FOR LOW RANGE DOSIMETER " (CDV-138) 0-200 mR (blue card) and "FIELD EXPOSURE LOG FOR HIGH RANGE DOSIMETER" (CDV-730) 0-20 R (yellow card) along with date of use, time of reading, start and ending readings, net and total exposure. Pertinent personal information and TLD serial number were entered on the front of the card. A space was also available to note the date and time of KI ingestion.

Emergency workers were aware of the mission limit (1000 mR) and the requirement to notify the Decontamination Center Manager when the low range SRD read approximately 50, 100, and 150 mR. They understood that if the low range SRD approached 175mR they were to reset the SRD after approval from the Decontamination Center Manager and enter the new start reading on the low range dosimeter log. To ensure that this requirement was being followed the Decontamination Center Manager sent a representative to each functional area to remind personnel of the actions to be taken and reported.

Emergency workers read their SRDs at least every 30 minutes. A recorder outside of the decontamination area was responsible for logging the SRD readings on the record cards for all the workers inside the decontamination area. However, all the monitoring staff had to log (write down) their SRD readings themselves, which proved awkward for some of them because the record card was inside a plastic bag. These staff should also have their SRD readings logged by a recorder.

To prevent personnel contamination overboots, shoe covers, Anti-C overalls, gloves, disposable particle masks and face shields were worn in the functional areas as appropriate.

Prior to the beginning of the exercise three briefings were given; the first covered general and environmental safety, the second the simulated conditions that resulted in the Emergency Worker Monitoring and Decontamination Center being opened and the third covered briefings in the functional areas, start and stopping of play and repacking of instruments, equipment and supplies.

The ability to monitor and decontaminate emergency workers was adequately demonstrated. The initial monitoring area was setup immediately outside of the definitive monitoring and decontamination area that was inside of a restroom/shower facility. The monitoring and decontamination activity was carried out by personnel from DCP, the County CHA, and the State of California DHS.

Two TSA Systems Ltd. Model TPM 903 PPMs, one for use in the initial monitoring of emergency workers and one as a standby were set-up at the entry to the monitoring and decontamination area. Both PPMs were tested for proper operation on 05/26/03 and are due to be tested again on 08/26/03. The PPMs were set-up following Radiation Control Procedure RCP EM-19 Revision OA "Thermo Electron (St. Goblin) TPM-903 Portals" and tested for proper response to radiation with a one microcurie cesium-137 source, calibrated 06/18/86, carried through the PPM. The PPM uprights were covered with thin plastic and butcher paper laid across the base. The PPM area was covered with a large portable awning to provide protection from the elements. A line was marked five feet back from the PPM to facilitate re-monitoring.

Eight CDV 700 survey meters with side-window, metal-walled GM probes and headphones were available for definitive hand monitoring. The instruments were calibrated on 04/01/03 and due for calibration on 04/01/04. Batteries were placed in the instruments and each instrument checked with the beta window open and on the X10 range against a radioactive source of known response located on the side of the instrument. One instrument failed to respond properly and was labeled as "bad". Instrument probes were left in the open window position and covered with thin plastic.

The monitoring and decontamination area inside the restroom/shower building was set-up in accordance with III.06, HP-9 "Emergency Worker Decontamination" NPPERP (05/03) Figure 4. "GUIDANCE FOR LAYOUT OF DECONTAMINATION CENTER". Male and female shower facilities were available however only the male shower area was used in accordance with the Extent-of-Play Agreement.

Appropriate signs such as Men's, Women's Decon, No smoking, Eating or Drinking, Instructions for donning and removing protective clothing, Decontamination Procedures and other appropriate signs were displayed outside and inside the building. The team also recognized they needed two additional signs: a "Do Not Enter" sign for the standby PPM, and a entry sign to guide emergency workers coming from the vehicle decontamination area. They created these signs using butcher paper and displayed them appropriately.

Tape was placed on the floor to delineate the clean and controlled areas. Radioactive waste containers were monitored at one-half hour intervals to prevent an increase in background. Monitoring personnel wore overboots and two pair of gloves and the Decontamination Specialists wore overboots, Anti-C coveralls and two pairs of gloves. The towels used are not of sufficient size to appropriately cover the decontaminated emergency worker during re-monitoring. All personnel were issued appropriate dosimetry.

Emergency workers were directed to walk through the portal monitor and stop on the butcher paper to await further instructions. The PPM alarmed (simulated) when the first emergency worker passed through. He was asked to step back to the five-foot line, pause while the PPM reset, and walk back through the PPM. When the alarm sounded again (simulated), he was directed to the definitive monitoring and decontamination area. As he entered, he stepped on the tape that demarcated the contaminated and clean areas. Monitoring staff wiped the portion on which he had stepped, and then monitored the wipe for any contamination.

Monitoring staff removed the potentially-contaminated butcher paper. Since there was no "Contaminated Materials" receptacle outside of the decontamination area, they tried to pass this paper into the decontamination area to be disposed of. This was very awkward because the monitoring staff had to hold the paper while waiting for someone to come out of the decontamination area and take it. The process also involved monitoring of gloves of the staff involved in the transfer, and changing gloves if necessary. The monitoring staff decided to just roll up the butcher paper, contaminated portion inside, and store by the side of the building. The SOP should be revised to include a "Contaminated Materials" receptacle outside of the decontamination area.

Monitoring staff then laid down a new sheet of butcher paper through the PPM. This process also proved awkward because they had to get down on their hands and knees to securely tape the paper. They were thoroughly monitored for contamination before the next emergency worker was sent through the PPM. The removal and replacement of the butcher paper was repeated following the identification of two other contaminated emergency workers.

Emergency workers who did not alarm the PPM had their left hand stamped "CLEAN" and were then directed to take the path away from the monitoring and decontamination area.

The monitoring staff exhibited excellent teamwork, especially for contamination control. They made sure the other members of their team were re-monitored correctly with the CDV-700s (using earphones) after touching, stepping, or kneeling in potentially-contaminated areas.

DCPP personnel carried out monitoring of simulated contaminated emergency workers in an effective and efficient manner. Public Health Nurses efficiently supervised simulated decontamination. Personal data was entered on FORM A-"PERSONAL DATA", contamination location and net cpm were entered on FORM B-CLOTHING AND BODY CONTAMINATIONREPORT", and decontamination results were entered on FORM B - "DECONTAMINATION RESULTS" by recorders from CHA. Recorders also recorded hourly self-reading dosimeters readings to prevent the possible spread of contamination. Personnel were aware of the 200 cpm above background as read on a CDV-700 decontamination trigger level.

Three simulated contaminated emergency workers were monitored and decontaminated (simulated). The monitoring and decontamination procedure was explained to each individual. Contamination control and direction and control within the monitoring and decontamination area were excellent. Clean clothing was available for the decontaminated (simulated) emergency workers. The Personnel Decontamination Specialist Coordinator was aware of the actions to be taken in the event that

decontamination of the emergency worker was not effective after three attempts

Valuables and personal items were monitored and placed in a plastic bag with a label containing the owner's name, Social Security Account Number and a description of the items. The Owners were told that the items would be returned to them.

At the conclusion of the monitoring and decontamination activities the Decontamination Specialists were monitored out following the Anti-C clothing removal procedure. The monitors fully explained the procedures for returning the area to unrestricted use and disposal of the radioactive waste.

At the conclusion of the vehicle monitoring activities, the monitor who had been the recorder monitored the individual who had been performing the vehicle monitoring duties for contamination. The recorder, wearing headphones, conducted the monitoring in an appropriate manner. This corrected the previous ARCA #19-99-22-A-6.

The monitoring and decontamination of emergency worker equipment and vehicles were adequately demonstrated. Using a campground roadway, four traffic cones and yellow caution tape were used to delineate the path for incoming emergency vehicles to be monitored and decontaminated if needed. Two personnel performed initial vehicle monitoring activities. One individual performed the monitoring and one individual recorded the results on the Vehicle Contamination Report form. A third individual performed vehicle monitoring activities on contaminated vehicles following decontamination efforts. In addition, four personnel performed vehicle decontamination activities.

Three CDV-700 survey instruments with earphones were used for vehicle monitoring. Following their plans and procedures checklist (SOP, III.06, HP-6, page 11; Vehicle Monitoring Checklist), batteries were inserted into three CDV-700 instruments, ear phones were attached, the probe was covered in plastic, the background count rate was established, and the instruments operability was confirmed. Using the check source located on the side of each instrument and with the beta window open, each instrument registered within the range specified in the above checklist.

In accordance with SOP, III.06 HP-6, VEHICLE MONITORING, 200 cpm above background, as read on a CDV-700, was the action level for determining the need for decontamination of emergency vehicles and/or equipment.

When an emergency worker vehicle pulled into the vehicle monitoring area, the driver was briefed on activities, provided booties to place over his shoes, and vehicle monitoring activities were initiated. Initially, the monitoring was complete and thorough, but the methodology employed was not consistent with the vehicle monitoring checklist detailed in the SOP III.06, HP-6, page 11. The evaluator, in concert with the vehicle monitoring controller, stopped the demonstration and explained that the monitoring procedure was not consistent with the checklist. As the demonstration continued, the monitoring recorder referred to the checklist and provided guidance to the monitor. Monitoring was accomplished in accordance with the checklist and included wiping the hood, roof, trunk, and tires with a small clean cloth. The cloth was then monitored for contamination. The action level of 200 cpm above background for determining the need for decontamination was also applicable for

this wiping cloth. Following the monitoring of the wiping cloth, the vehicle was monitored using a CDV-700. Monitoring included the engine compartment, air filter, wheel wells, tires, and inside of the vehicle's passenger compartment and trunk. All measurements were documented on the Vehicle Contamination Report form by the recorder and placed on the vehicle's dashboard.

One emergency vehicle to be monitored was a police car driven by a police officer with a second officer in the passenger seat. Part of the monitoring procedure was to monitor the inside of the vehicle's trunk. When the monitor asked the driver to open the trunk, he said he could not do that. When the officers were asked to step out of the vehicle so that the monitor could check the interior, the driver was visibly uncomfortable. He looked at the rifle mounted between the driver and passenger seats, hesitated, and then complied. The monitoring procedures (SOP III.06, HP-6, page 13) also state that the occupants are to be directed to leave radios and firearms in the vehicle. Based on the observed actions of the two officers, there was no chance that the officers would leave their radios and firearms inside the vehicle so the monitor did not address this. A suggestion is to position a uniformed officer at vehicle monitoring to provide a comfort level for emergency workers who are law enforcement officers, to be visible for all incoming emergency workers, and to support any law enforcement issues that might arise at the emergency worker monitoring and decontamination center.

If the vehicle was not contaminated, the driver was directed to park the vehicle in a nearby "clean" parking area and proceed to the emergency worker monitoring area for personnel monitoring.

If the vehicle was contaminated, the driver was directed to drive the vehicle to a nearby decontamination area. Upon arrival, the driver was directed to the emergency worker monitoring area for personnel monitoring and the vehicle was decontaminated by washing with water, detergent, and a brush. The team leader for vehicle decontamination supervised the decontamination efforts performed by the three personnel. He followed the vehicle decontamination checklist very closely, addressing each step.

Contamination control in the vehicle decontamination area was established by roping off an area separating the clean area from the contaminated area. Additionally, two trashcans, lined with plastic bags, were available and marked for contaminated waste and clean waste. The area established for decontamination was on a cement slab that inclined from the roadway thus allowing runoff of water from the roadway to a low area where the water could be absorbed without impacting sources of drinking water.

Two vehicles with simulated contamination arrived at the vehicle decontamination area. The first emergency worker vehicle requiring decontamination arrived at 1129. The driver was directed to go to the emergency worker monitoring station to be monitored for contamination. The Vehicle Contamination Report form was removed from the car, checked by the monitor for contamination, and then given to the vehicle decontamination team leader. The team leader reviewed the form and then provided instructions to the decontamination team on what areas of the vehicle were contaminated. He did this sequentially to ensure that areas with the highest radiation readings were decontaminated first. Initially, the vehicle was washed using a low pressure hose; then the contaminated area was thoroughly scrubbed using a brush with detergent and water; then the

contaminated area was rinsed with water; and finally, the scrub brush was sprayed with water before returning it to the pail containing the detergent and water. These steps were performed for each contaminated area of the vehicle.

Following decontamination, the vehicle was carefully re-monitored. The monitoring techniques demonstrated were adequate with respect to rate of movement and instrument detector distance. All areas initially identified as contaminated were thoroughly re-monitored. All contaminated areas had been successfully decontaminated below 200 cpm with exception of the air filter. The team leader then directed that the vehicle be taken to the contaminated parking area for further decontamination efforts as time allowed. A "clean" vehicle decontamination team member served as the driver. Before he was allowed to enter the vehicle, the ground area around the car was rinsed and the vehicle door and front interior were re-monitored to ensure it was clean. Decontamination activities associated with this vehicle were completed at 1145.

A second contaminated vehicle arrived at the decontamination station at 1200. Decontamination of this vehicle was accomplished using methodology similar to the decontamination of the first vehicle and was completed at 1215. At 1230, operations at the decontamination were terminated, decontamination personnel properly removed their protective clothing and placed them in the "contaminated waste" trash can, and they were monitored to see if they were clean. Thereafter the team leader collected all dosimetry and the EWEC kits, returned them to the EWEC desk, and directed all team members to report to the portal monitor for a final check that they were clean.

Evaluation Area Criteria Met

1.e.1, 3.c.1, 6.a.1, 6.c.1

Deficiencies

None

Areas Requiring Corrective Action

None

Prior Areas Requiring Corrective Action-Corrected

19-99-22-A-6. Vehicle monitoring area end-of-shift exit frisk

NUREG-0654 Reference: K.5.b

Objective #22

Demonstration Criterion #2

1. **Description:** At the conclusion of the vehicle monitoring, the vehicle monitor and the recorder conducted a self-frisk before exiting the vehicle monitoring area. The technique demonstrated during this self-frisk was somewhat questionable, as at one point, while the recorder was frisking the monitor, it was observed that the monitor was still wearing the instrument earphones while the recorder was using the instrument for the exit contamination survey. Only the hands and feet were surveyed. It did not appear that a full whole body frisk was adequately performed as required by the Procedure III.06, HP-6, Checklist 3, step 10.
2. **Recommendation:** Train the vehicle monitors on the proper end of shift survey for removing Anti-Cs when leaving the vehicle monitoring area. Alternatively, the procedures could be revised to require all monitoring and decontamination personnel to pass through the portal monitor at the end of their shift when exiting the El Chorro Emergency Worker Monitoring and Decontamination facility.
3. **Corrective Action:** At the conclusion of the vehicle monitoring, the monitor who had been the recorder monitored the individual who had been performing the vehicle monitoring duties for contamination. The recorder, wearing headphones, conducted the monitoring in an appropriate manner.

19-03-6.a.1-A-1. Monitoring Technique

CONDITION: During the body frisking of the evacuees, it was noted that the procedure was being conducted improperly. The scan rate was too fast, and the probe was held too far from the body. In consultation with the lead controller, the monitoring supervisor was notified and re-training was conducted. The radiation supervisor maintained a post on the "clean" side of the decontamination center, conducted re-training, maintained that post, and continued to coach the monitors throughout the remainder of the drill. However, the monitors never performed an adequate frisk on any of the evacuees.

POSSIBLE CAUSE: Lack of experience and ineffective training might be the cause of the condition.

REFERENCE: NUREG-9654, J.10.h; J.12; K.5.a

EFFECT: If the hand-frisking process is conducted at a high rate, levels of contamination at or near the action level would not be detected. This could result in unconditional release of a contaminated individual and possible cross-contamination.

RECOMMENDATION: Conduct hand-frisking training to present a more realistic scenario to the trainee. This can be accomplished by placing a small radioactive check source (close to the action level threshold of 200 cpm above background) on a table under a cover or on a mannequin. This type of training will reinforce the appropriate scanning rate and distance. Revise the decontamination procedure and training method. An additional recommendation is to acquire updated and more efficient survey meters.

CORRECTIVE ACTION: DCPD personnel in the decontamination area carried out monitoring of simulated contaminated emergency workers using CDV 700s in an effective and efficient manner. At the conclusion of the vehicle monitoring, the monitor who had been the recorder monitored the individual who had been performing the vehicle monitoring duties for contamination. The recorder, wearing headphones, conducted the monitoring in an appropriate manner.

Prior Areas Requiring Corrective Action – Uncorrected

None

APPENDIX 1

ACRONYMS AND ABBREVIATIONS

ALARA	as low as reasonably achievable
ARC	American Red Cross
ARCA	Area Requiring Corrective Action
ARES	Amateur Radio Emergency Services
BEPZ	Basic Emergency Planning Zone
CALTRANS	California Department of Transportation
CDN	Civil Defense
CFR	Code of Federal Regulations
CHA	County Health Agency
CHO	County Health Officer
CHP	California Highway Patrol
cpm	Counts Per Minute
DCPP	Diablo Canyon Power Plant
DHS	Department of Health Services (State)
DSS	Department of Social Services
DWI	Disaster Welfare Inquiry
EOC	Emergency Operations Center
EWEC	Emergency Worker Exposure Control
FEMA	Federal Emergency Management Agency
FR	Federal Register
KI	potassium iodide
mR	milliroentgen
mR/h	milliroentgen per hour
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>
OES	Office of Emergency Services

ORO	Off-site Response Organization
PAC	Phone Assistance Center
PAZ	Protective Action Zone
PG&E	Pacific Gas and Electric Company
PHN	Public Health Nurses (County Health Agency)
PIO	Public Information Officer
PPM	Portable Portal Monitor
R	Roentgen
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Service
rem	Roentgen Equivalent Man
REP	Radiological Emergency Preparedness
RERP	Radiological Emergency Response Plan
R/h	Roentgen(s) per hour
RIX	Region 9
SLOCEOC	San Luis Obispo County Emergency Operations Center
SOP	Standard Operating Procedure
SRD	self-reading dosimeter
TLD	Thermoluminescent Dosimeter
UHF	Ultra High Frequency
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 Camp Roberts Drill on April 30, 2003, and the El Chorro Drill on June 4, 2003. The letters "(TL)" indicate evaluator Team Leaders after their names. The organization that each evaluator represents is indicated by the following abbreviations:

ICF - ICF Consultants
FEMA- - Federal Emergency Management Agency

Camp Roberts Drill

<u>EVALUATION SITE</u>	<u>EVALUATOR</u>	<u>ORGANIZATION</u>
Initial Monitoring	Art Ball	ICF
Evacuee Decontamination	Hollis Berry	ICF
Evacuee Vehicle Monitoring	Lyle Slagle	ICF
Registration Center Monitoring	Frank Bold	ICF
Evacuee Registration	Paul Carlson	ICF (TL)
Congregate Care	Laura Hokenstad	FEMA RIX
Administrative Support	Michelle Mandolia	ICF

Richard Echavarria, FEMA RIX, Site-Specialist
Ken Chin, FEMA RIX, RAC Chair

El Chorro Drill

<u>EVALUATION SITE</u>	<u>EVALUATOR</u>	<u>ORGANIZATION</u>
Emergency Worker Monitoring and Decontamination	Frank Bold	ICF
Emergency Worker Equipment Monitoring	Daryl Thome	ICF
Emergency Worker Equipment Decontamination	Paul Carlson	ICF (TL)
	Richard Echavarria, FEMA RIX, Site-Specialist	

APPENDIX 3

EVALUATION AREA CRITERIA AND EXTENT-OF-PLAY AGREEMENT

This appendix lists the evaluation area criteria that were scheduled for demonstration in the Diablo Canyon Power Plant Off-site Camp Roberts Drill on April 30, 2003, and the El Chorro Drill on June 4, 2003, and the extent-of-play agreement approved by FEMA Region IX.

The exercise evaluation area criteria, contained in the "Radiological Emergency Preparedness Exercise New Methodology" 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 evaluation area criteria 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 Evaluation area criteria.

A. Exercise Evaluation Area Criteria

Listed below is the specific radiological emergency preparedness evaluation area criteria scheduled for demonstration during this exercise.

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.d - Communications Equipment

Criterion 1.d.1: At least two communication systems are available, at least one operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations. (NUREG-0654, F.1., 2.)

Sub-element 1.e - Equipment and Supplies to Support Operations

Criterion 1.e.1: Equipment, maps, displays, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations. (NUREG-0654, H., J.10.a.b.e.f.j.k., 11, K.3.a.)

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.a - Implementation of Emergency Worker Exposure Control

Criterion 3.a.1: The OROs issue appropriate dosimetry and procedures, and manage radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. (NUREG-0654, K.3.)

EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES

Sub-element 6.a - Monitoring and Decontamination of Evacuees and Emergency Workers, and Registration of Evacuees

Criterion 6.a.1: The reception center/emergency worker facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees and/or emergency workers. (NUREG-0654, J.10.h.; K.5.b.)

Sub-element 6.b - Monitoring and Decontamination of Emergency Worker Equipment

Criterion 6.b.1: The facility/ORO has adequate procedures and resources for the accomplishment of monitoring and decontamination of emergency worker equipment including vehicles. (NUREG-0654, K.5.b)

Sub-element 6.c - Temporary Care of Evacuees

Criterion 6.c.1: Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines. Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities. (NUREG-0654, J.10.h., 12.)

B. Extent-of-Play Agreement

The extent-of-play agreement on the following pages was submitted by San Luis Obispo County and was approved by FEMA Region IX, in preparation for the Diablo Canyon Power Plant Off-site Camp Roberts Drill on April 30, 2003, and the El Chorro-Drill on June 4, 2003. The extent-of-play agreement includes any significant modification or change in the level of demonstration of each exercise evaluation area criterion listed in Subsection A of this appendix.

COUNTY OF SAN LUIS OBISPO

2003

CAMP ROBERTS

**EVACUEE MONITORING, DECONTAMINATION CONGREGATE CARE
AND
EMERGENCY WORKER & EMERGENCY WORKER VEHICLES
MONITORING & DECON**

EXERCISE

OBJECTIVES AND EXTENT OF PLAY

COUNTY OF SAN LUIS OBISPO - EVACUEE MONITORING DECONTAMINATION
CONGREGATE CARE & EMERGENCY WORKER & VEHICLE MONITORING &
DECONTAMINATION EXERCISE

APRIL 30, 2003 OBJECTIVES AND EXTENT OF PLAY

CAMP ROBERTS EXERCISE

Introduction:

On October 23, 2002 the County of San Luis Obispo, the State of California, and various Federal and local allied agencies, in support of a simulated emergency at Diablo Canyon Power Plant (DCPP) participated in a Federal Emergency Management Agency (FEMA), biennial Radiological Emergency Preparedness (REP), exercise. The required FEMA REP Exercise Evaluation Methodology Criteria were demonstrated and evaluated. A subsequent element of this Off-site Emergency Response Organization's (ORO) evaluated response capability will be the demonstration of Evacuee Monitoring, Decontamination, Registration and Congregate Care plans and standard operating procedures on April 30, 2003 at Camp Roberts. A separate demonstration of Emergency Worker vehicle and equipment decontamination procedures will be conducted on June 4, 2003 at El Chorro Regional Park.

The extent of exercise play for non-county organizations is based upon County Plans, Standard Operating Procedures (SOP), and that organization's SOPs, goals, schedules and staffing.

Objectives:

The intent of this Evacuee and Congregate Care exercise is to demonstrate the ORO capability to effectively establish a relocation center, monitor and if necessary decontaminate evacuees, emergency workers their equipment and vehicles while controlling the spread of contamination. Procedures for the registration, processing and provision of congregate care will be demonstrated in coordination with the American Red Cross.

The joint objectives and extent of play have been developed in contact with state and local organizations that are involved in response and support to emergencies at Diablo Canyon Power Plant. The six evaluation criteria listed for demonstration are consistent with the approved Six Year Exercise Cycle, NUREG-0654/FEMA-REP 1, Exercise Evaluation Methodology Criteria, and the criteria demonstrated on October 23, 2002.

Extent of Play:

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

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DECONTAMINATION EXERCISE

APRIL 30, 2003 OBJECTIVES AND EXTENT OF PLAY

As a result of the October 23, 2002 exercise scenario and extent of play, a Protective Action Decision (PAD) was issued for PAZ 1, 2, 4, 5, and 9. Occupants were ordered to evacuate and were directed to the Camp Roberts Reception and Congregate Care Center approximately 40 miles north of San Luis Obispo on US Highway 101. Affected school children had been relocated in advance of the general population to a designated School Evacuation Center at Paso Robles fairgrounds some 30 miles north of San Luis Obispo on US Highway 101. The relocation and accommodation procedure for public and private school children was evaluated in the October 23, 2002 exercise and is not an object of this exercise.

The evaluation of this exercise is to be based on the new FEMA Evaluation Methodology Criteria, that are applicable to the San Luis Obispo County/Cities Nuclear Power Plant Emergency Response Plan (NPP ERP) and relevant associated Standard Operating Procedures (SOP). Six Evaluation Area Criteria sub-elements will be demonstrated through the utilization of existing Plans and SOPs with those exceptions that are outlined within the context of this Extent of Play. Copies of the appropriate plans and procedures have been provided to FEMA Region IX staff, and updated procedures if any will be forwarded as available prior to the exercise. It is understood that FEMA Region IX is responsible for providing to evaluators copies of current applicable SOPs.

The following objectives and extent of play have been developed in contact with state and local organizations involved in emergency planning and response to Diablo Canyon Power Plant.

The Exercise Evaluation Areas and Criteria that will be demonstrated and evaluated during the Exercise will be limited to:

- 1.d.1 Communications Equipment
- 1.e.1 Equipment and Supplies to Support Operations
- 3.a.1 Implementation of Emergency Worker Exposure Control
- 6.a.1 Monitoring and Decontamination of Evacuees and Emergency Workers and the Registration of Evacuees
- 6.c.1 Temporary Care of Evacuees
- 6.b.1 Monitoring and Decontamination of Emergency Worker Equipment
(To be demonstrated on June 4, 2003)

The listed Evaluation Areas and sub-elements with the exceptions outlined within this extent of play will be demonstrated and evaluated on the morning of April 30, 2003 beginning at approximately 10:00 AM.

The October 23, 2002 Diablo Canyon Plume Phase exercise extent of play precipitated the evacuation of PAZs 1, 2, 4, and 5 in the Federal EPZ and PAZ 9 in the State expanded EPZ.

**COUNTY OF SAN LUIS OBISPO - EVACUEE MONITORING DECONTAMINATION
CONGREGATE CARE & EMERGENCY WORKER & VEHICLE MONITORING &
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At the direction of the Emergency Services Director at the County Emergency Operations Center the activation of evacuee reception and congregate care centers was requested and accomplished. The activation and staffing of the Camp Roberts Evacuee Reception and Congregate Care Center (Camp Roberts) for this exercise will be accomplished through the combined efforts of the California National Guard at Camp Roberts, Diablo Canyon Power Plant, State Department of Health Services, the San Luis Obispo County Departments of Health, Social Services and Behavioral Health along with the American Red Cross and the ARES/RACES amateur radio organizations. Additional groups and individuals may be utilized to assist the preceding organizations and to act as mock evacuees for exercise purposes. The extent of play will be driven by the associated Plans, SOPs, facilities, evaluation criteria and exercise management. The details of the precursor October 23, 2002 plume phase exercise and scenario have been submitted to FEMA as a separate document prior to that exercise and should be available for review.

Sequence of Play:

Mock evacuee vehicles will enter the exercise area through the Camp Roberts, North Gate entrance and will queue up on the road prior to the vehicle monitoring station. Vehicles will proceed one at a time through Vehicle Monitoring where monitoring procedures for contaminated vehicles will be demonstrated by Diablo Canyon Power Plant. These technicians will be following San Luis Obispo County (SLO) SOP III.06, HP-6

Exercise vehicle monitors will demonstrate finding a number of vehicles to be contaminated. Those designated contaminated vehicles and their occupants will be directed to park in the immediately adjacent, secured quarantine parking area. Contaminated vehicle occupants will be briefed and transported by a designated bus to the Evacuee Monitoring and Decontamination facility.

Vehicles and their occupant mock evacuees designated as clean will be directed to drive from the vehicle monitoring station along a designated and marked route to the Evacuee Registration and Congregate Care area for monitoring registration and processing.

Mock evacuees from vehicles designated as contaminated will be delivered to the Evacuee Monitoring and Decontamination facility where they will be directed through a portable portal monitor. The demonstration of this facility set up, evacuee monitoring and decontamination will follow SLO SOP III.06 -HP-7. Those monitored evacuees designated as contaminated will be directed into the decontamination building where they will be registered as monitored and decontaminated and then directed through the decontamination process including simulated showering and final monitoring. Evacuees that have completed the decontamination process and for those found not contaminated at the portal monitor, will be bussed by a separate clean vehicle to Evacuee Registration and Congregate Care for further processing.

All evacuees arriving at Registration and Congregate Care will individually pass through a portable portal monitor to ensure no contamination reaches the Registration area.

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A simulated detected contamination will be demonstrated at this pre Registration monitoring location and the individual will be directed to return to his/her vehicle and proceed back to the initial vehicle monitoring area and park in the vehicle quarantine lot. From this location the individual will be transported by the designated contaminated bus to the monitoring and decontamination facility for processing before returning to Evacuee Registration and Congregate Care.

Representatives from SLO County Social Services, Behavioral Health and the American Red Cross Shelter managers will demonstrate the procedures per SOPs for registration, processing and the administration of evacuee welfare and care needs.

The monitoring of emergency workers for contamination will take place at each monitoring location and the decontamination if necessary will be at their location if possible or at the monitoring and decontamination facility.

Monitoring and decontamination of emergency workers and equipment, represented by a fire engine, will be demonstrated out of sequence at El Chorro Regional Park Camp Ground on June 4, 2003 at 10 AM.

Supporting Plan and Standard Operating Procedures (SOP) for this exercise are the following:

- SLO County/Cities Nuclear Power Plant Emergency Response Plan
- Health Officer III.05, Emergency Services Director III.01
- Health Physics SOP (HP) 6,7,8,9,11
- Social Services SOP 111.07
- American Red Cross SOP 111.23

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APRIL 30, 2003 OBJECTIVES AND EXTENT OF PLAY

EXERCISE FACILITIES AND FUNCTION LOCATIONS:

CAMP ROBERTS

Exercise Location

A Federal facility operated by the California National Guard for troope training and mobilization. The Camp is located approximately 45 miles north of the Diablo Canyon Power Plant and outside of the State Basic Emergency Planning Zone (BEPZ).

VEHICLE MONITORING AREA

Located inside the North Gate entrance (East Garrison Exit off of Hwy 101) on G. Street (near the "FMC Building"). This includes an open area with a large parking area for contaminated vehicles. DCPD personnel (in support of county operations) will demonstrate the vehicle monitoring function. ARES/RACES may have a person available for additional communications capability and assistance.

EVACUEE MONITORING and DECONTAMINATION AREA

Barracks building 6315 and 6316 on New Mexico Avenue will be used to demonstrate evacuee monitoring and decontamination. Evacuees from contaminated vehicles and contaminated evacuees detected at Registration report to these barracks for monitoring and decontamination. DCPD personnel (in support of county operations) will demonstrate portal monitoring and monitoring throughput capability averaging 6 persons per minute. Additionally the use of hand held CDV-700 monitors will be demonstrated. Public Health Nurses activated by the County Health Agency will be responsible for decontamination functions inside the above barracks.

EVACUEE MONITORING AT REGISTRATION

Is located just Prior to entering the Reception and Care Registration area at Building~ 4008 (located at the corner of Arizona Blvd. and Ave. 10) all evacuees from clean vehicles will be monitored by DCPD personnel prior to Registration. A throughput capability demonstration averaging six persons per minute will take place at this location at the beginning of the exercise (in support of county operations).

ADMINISTRATION BUILDING

Building 4007 (located on Ave 10). The administration of Reception and Congregate Care functions will be demonstrated from this building. Functions performed in this Administration Building will include:

- Shelter Manager
- Personnel
- Logistics
- Health Services (Nursing Supervisor)
- Disaster Welfare Inquiries
- Communications
- ARES/RACES Back up Communications
- Security and Public Relations/Public Information

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REGISTRATION BUILDING

Building 4008. The registration function for evacuees will be demonstrated in this building. Functions performed in the Registration Building include:

- | | |
|-----------------|------------------------|
| \$ Registration | \$ Housing Assignments |
| \$ First Aid | \$ Family Services |

BLOCK MANAGER HEADQUARTERS BUILDING

Building 4121. The Block Manager Headquarters Building will house the Block Manager responsible for all barracks within the Block, a Block Nurse, and a Behavioral Health Counselor.

BARRACKS

Buildings 4104, 4105 and 4106. The Barracks Manager is the only function demonstrated within these barracks.

DINING HALL

Building 4101. The Feeding and Canteen Service functions will be demonstrated in this facility by the American Red Cross.

RECREATION HALL

Building 4102- The second dining hall will be used by the Recreation Coordinator as an example of a shelter indoor recreation area.

**EL CHORRO REGIONAL PARK CAMP GROUND MONITORING/
DECONTAMINATION FACILITY**

(Out of sequence) On June 4, 2003, at El Chorro Regional Park Camp Ground, located approximately one mile north of the County EOC on US Highway 1, the Monitoring and Decontamination of simulated contaminated emergency workers and vehicle (fire engine) will be demonstrated for Evaluation Criteria 6.b.1 beginning at 10 AM. Facility security will not be demonstrated.

SIMULATED EXERCISE FACILITIES

No other emergency facilities will be demonstrated outside of Camp Roberts. For purposes of message delivery and information flow the following facilities will be simulated:

- County Emergency Operations Center
- American Red Cross Chapter Headquarters
- Phone Assistance Center

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TRAINING ACTIVITIES OUTSIDE THE SCOPE OF THIS EXERCISE:

The California National Guard command staff at Camp Roberts will take advantage of the civilian exercise being held at their facility by opening the Camp Emergency Operations Center (EOC). During the FEMA Evaluated Exercise the Camp EOC will conduct a parallel drill and training to exercise their new EOC facility and its staff. The Guard activities are not a part of the DCPD / County Evaluated Exercise. However, some incidental interaction and communications will take place to lend additional exercise reality and stretch incident management skills.

ARES/RACES COMMUNICATIONS activities may include exercising and training activities that will include portable packet radio and the testing of equipment remote from the exercise site. This is an opportunity to practice with the expanded communications capability that would be available in a real event. Every effort will be made to ensure the independent non-NPP exercise ARES/RACES activities do not affect exercise play.

EXCEPTIONS TO EXTENT OF PLAY:

The following exceptions are proposed as part of the Extent of Play and agreement by FEMA Region IX staff is requested.

1. SET UP

The exercise will be run with all facilities set up in advance. Set up of the Decontamination area facilities will be done at the March 26 orientation and dress rehearsal. Mock evacuees will be cued in their vehicles at the north gate (Garrison Road entrance) prior to the start of the exercise. Upon determination by the Lead Controller, in coordination with the FEMA evaluation team leadership and facility controllers the exercise will start.

2. EXERCISE TIME LINE

The scenario time line from the October 23, 2002 exercise has been modified to accommodate exercise management. The estimated start time of the Camp Roberts Exercise will be approximately 10:00 AM on April 30, 2003.

3. OFF SITE SIGNAGE

Cal Trans will not set up signing on the Highway to identify entrance gates because of Cal Trans regulations restricting the use of highway signing for non emergency activity. Cal Trans highway signing and traffic management capabilities were evaluated by interview on October 24, 2002.

4. VEHICLE MONITORING

Procedures for vehicle monitors at Camp Roberts identify large area swipes for screening of contaminated vehicles. Vehicle monitors will not monitor air filters, engine compartments or

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other interior areas of the car. The concept of operations is that if exterior contamination is discovered, the car is parked in the "contaminated vehicle parking" area and left there until sufficient resources are available to do follow-up monitoring and decontamination. The plan identifies this as a recovery issue. Procedure 111.06, HP-6 covering this procedure also identifies that security is provided for the "contaminated vehicle" area, however this will not be demonstrated.

5. EVACUEE MONITORING

Decon. Area (Build. 6315 and 6316).

The SOP layout calls for separate monitoring stations outside of each Decon barracks. For this exercise two portal monitors will be set up outside one representative barracks building. One will be in use and the other will serve as back-up. For the exercise, male and females will not be segregated and will enter the same representative Decon Barracks. Persons who are monitored in the Decon area are registered by Public Health staff.

NOTE: THIS ONLY REGISTERS THE PERSON AS HAVING BEEN MONITORED AT THE DECONTAMINATION AREA. REGISTRATION FOR CONGREGATE CARE TAKES PLACE AT THE REGISTRATION BUILDING 4008.

6. DECONTAMINATION CENTER

Decontamination barracks (Build. 6315 and 6316)

Procedures call for establishing separate male and female decontamination facilities. One representative barracks / building will be established and in use during this exercise. Evacuees that are monitored at the Decontamination Center are registered by Public Health personnel solely to document evacuees that have been monitored, and if necessary, decontaminated. Registration for the Congregate Care takes place in Registration Building 4008.

Nasal swabs are only required at the discretion or direction of the County Health Officer. This procedure will not be demonstrated during this exercise. No evacuees will disrobe, shower nor be directed to don alternate clothing during this exercise.

7. MONITORING AT RECEPTION AND CONGREGATE CARE AREA

(Outside Reception Build: 4008).

Two portal monitors will be set up with one in use and the other serving as back-up. Monitors at this location do not register evacuees. Evacuees are instructed to enter the Registration Building where Social Services and ARC register people using the appropriate forms. All evacuees registering at this location will first be monitored.

8. EMERGENCY WORKER EXPOSURE CONTROL (EWEC)

Only monitoring and decon functions will use EWEC equipment and procedures. The Evacuee or Emergency Worker Decon Center Manager is the site EWEC manager and instructs workers in accordance with SOP HP-7, Guide 2 and HP-11. Knowledge and use of EWEC equipment, forms, procedures and management will be demonstrated in buildings 6315 and 6316. Reporting exposures to the Health Agency Operations Center will be simulated.

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9. NUMBER OF EVACUEES AND VEHICLES

The population evacuee numbers are drawn from the 2002 Wilbur Smith Evacuation Times Study. This document has been provided earlier. The estimated maximum population from the Federal EPZ (PAZs 1,2,3,4,5) that could evacuate north to Camp Roberts is 22,787. Twenty percent of this number is 4,557. This number does not include school populations as they are moved early in the emergency and do not go to Camp Roberts. Portal monitoring at a rate of 7 seconds per evacuee per portal monitor at a 50 minute monitor operation time per hour, 429 evacuees could be processed per monitoring unit per hour. At the 429/ hour rate , 5,143 evacuees per portal monitor could be monitored in a 12 hour period. This capacity exceeds the required evacuee processing rate and additionally is based on conservative monitoring processing times. The result is that 1 portal monitor is needed at the Camp Roberts facility to monitor twenty percent of the population in a 12 hour time frame. However 2 portal monitors at separate locations on April 30, at Camp Roberts and 1 unit at El Chorro will be demonstrated, each portal monitor unit will have a second monitor setup as a backup. At 2.7 evacuees per vehicle some 1,688 vehicles would arrive at Camp Roberts for monitoring in a 12 hour period. It is estimated that 3 minutes is required per vehicle to monitor. One representative evacuee vehicle monitoring procedure will be demonstrated for evaluation.

10. SPECIAL NEEDS POPULATIONS

The Camp Roberts facility is not well suited for handling special needs populations, including mobility handicapped individuals. Persons requiring special needs attention or handicapped facilities are monitored and registered at the Camp Roberts Facilities and then assigned to another facility off of the Camp Roberts premises in accordance with standard ARC procedures. Through mutual aid channels during real emergencies supplemental resources to accommodate larger numbers of special needs populations, including the addition of ramps and railings would be acquired.

**11. MONITORING AND DECONTAMINATION OF EMERGENCY WORKERS &
EMERGENCY WORKER EQUIPMENT / VEHICLES**

The demonstration of Evaluation Criteria 6.b.1 Monitoring and Decontamination of Emergency Worker Equipment will be conducted out of sequence from the April 30, 2003 Exercise on June 4, 2003. This demonstration will be at the County El Chorro Regional Park Camp Ground at 10:00 AM. The monitoring of two and decontamination of one County fire engine is representative of contaminated equipment and vehicles and will take place in a blacktop and dirt roadway area just east of the camp ground showering facility. This area and shower building serve as an Emergency Worker Decontamination Facility. A minimum of two emergency workers will be monitored and decontamination simulated. The setup of this demonstration may be evaluated; however this is an active showering facility for the camp ground and public usage will be considered.

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TERMINATION OF EXERCISE FOR EMERGENCY EVENTS

The Drill Director may terminate the exercise should emergency conditions occur that require the attention of exercise participants, controllers or evaluators.

Special activities or security concerns that may arise at or potentially significantly impact Camp Roberts and or its staff may preempt the exercise.

The Drill Director will make a reasonable attempt to coordinate planned or emergency Exercise termination with key exercise evaluators, managers and participant representatives.

EXTENT OF PLAY AGREEMENT

The Final Objectives and Extent of Play will be reviewed and approved by FEMA Region IX staff. The Extent of Play identifies the extent of demonstration by Evaluation Criteria. This Objectives and Extent of Play package constitutes the agreed upon FEMA REP Evaluation Criteria and sub-elements and the level of participation and demonstration for this exercise.

It is requested that all areas of this exercise demonstration be subject to immediate feedback and correction under REP Initiative guidelines. On approval of this Extent of Play and demonstration Evaluation Criteria, any subsequent FEMA request to modify or expand the scope of the Extent of Play or Criteria must be made prior to March 25, 2003.

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FEMA EXERCISE EVALUATION CRITERIA THAT WILL BE DEMONSTRATED

CRITERIA NUREG
0654

Evaluation Criteria Description and Demonstration

1.d.1 F.1.2

Communications Equipment – At least two communications systems are available, at least one operates properly, and communications links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations.

The ORO demonstrated on October 23, 2002 simulated communications to the Camp Roberts site by telephone and ARES /RACES backup radio communications.

On April 30, 2003 primary intra and intercommunications will be by telephone and fax using the Camp Roberts PBX system connected to the public telephone system. Hand held radios will be used in the field between the various functional areas and within functional groups during the exercise.

Secondary communications would be by County or agency radios, pagers and cell or satellite phones and this will not be demonstrated except as above.

Alternate or backup communications will be demonstrated by the ARES/RACES amateur radio contingent centered in Congregate Care Administration, building 4008.

Telephone communications to and from the simulated County EOC, Phone Assistance Center, ARC Chapter EOC and other off Base locations will be answered or received from the exercise Sim Cell located in building 4008.

1.e.1 H,J.10.a
b.e.f.j.k,
11,K.3.a

Equipment and Supplies to Support Operations – Equipment, maps, displays, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations.

Camp Roberts is approximately 45 miles from DCPD and well beyond the Federal and expanded State Emergency Planning Zone, it is not in the Diablo Canyon prevailing down wind sector and is separated by a mountain range. Emergency Worker Exposure Control (EWEC) equipment will be issued for workers in the areas of Monitoring and Decontamination, designated bus drivers and those who by assignment may come in contact with potentially contaminated persons, possessions or equipment. Adequate numbers of CDV-138 SRDs, current TLDs and KI along with recording and reporting procedures will be demonstrated by a representative of DCPD monitors and Public Health Nurses.

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APRIL 30, 2003 OBJECTIVES AND EXTENT OF PLAY

1.e.1

State DHS will follow local EWEC policy where applicable.

The Decontamination Center Manager from County Public Health is the responsible on site EWEC coordinator and will supervise the distribution and collection of logs and dosimeters.

Knowledge of the mission or administrative exposure limit of 1000mR and a contamination threshold limit of 200 counts per minute above background on a CDV 700 monitor will be demonstrated. In addition to CDV700 portable hand held monitors, St. Gobain TPM-903 or SAIC PPM-100A Portable Portal Monitors will be used at Evacuee Monitoring and Decon and at Registration (refer to PG&E procedure RCP EM-19 and -18).

At this time the State and Local Plans do not require the distribution of potassium iodide (KI) for the general public at Evacuee Centers and will not be demonstrated

The facilities will be set up on March 26. This will simulate the actual setup of the facilities that would occur prior to the arrival of evacuees. All necessary materials, equipment, signs, barricades, hand outs and staff will be in place and the facility activated as was reported in the October 23, 2002 Exercise.

3.a.1 K.3.a,b

Implementation of Emergency Worker Exposure Control – The OROs issue appropriate dosimetry and procedures, and manage radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart.

The above will be demonstrated by Exercise play or by interview.

Applicable SOPs include Emergency Services Director III.01, County Health Officer HP III.05, III-06, HP 7, 8, 9, 11.

The County Emergency Services Director and Health Officer are primary decision makers with the EOC EWEC Desk coordinating information to and from the field and the Health Department Evacuation Center Monitoring and Decontamination Manager managing the site EWEC procedures.

COUNTY OF SAN LUIS OBISPO - EVACUEE MONITORING DECONTAMINATION
CONGREGATE CARE & EMERGENCY WORKER & VEHICLE MONITORING &
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APRIL 30, 2003 OBJECTIVES AND EXTENT OF PLAY

- 6.a.1 J.10.h,12 K.5.b **Monitoring and Decontamination of Evacuees and Emergency Workers and the Registration of Evacuees – The (Camp Roberts Evacuee) reception center / (El Chorro Park Emergency Worker) facility** has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination and registration of evacuees and or emergency workers (and vehicles).

Refer to Sequence of Play, Facilities and Function Description and Exceptions to Extent of Play along with SOPs III-06,HP-6,7,8,9 and Social Services III.07 and American Red Cross III.23, for facility description, set up and procedure details related to this criteria demonstration.

Diablo Canyon personnel perform set up and vehicle monitoring, portal monitoring at Monitoring and Decontamination and at the Registration and Congregate Care area portal monitor, along with self monitoring for contamination following County SOP III.06,HP-6 and 7. Emergency Worker personnel, equipment and vehicle monitoring follow HP-6,8 and 9 Public Health Nurses set up and conduct evacuee and emergency worker monitoring and decontamination using procedures in SOP III.06,HP-7,9 and 11.

County Social Services uses SOP III.07 and is responsible for but requests the American Red Cross as requested Congregate Care Center Managers at Camp Roberts. ARC will demonstrate setup and operation procedures outlined in ARC SOP III.23.

County Fire personnel will set up and operate Emergency Worker and Worker Equipment / Vehicle Decon at El Chorro Camp Ground on June 4, using HP-6,8 and 9.

Refer to Exception to Extent of Play, 9. Evacuee Numbers for evacuee numbers and throughput potential. Diablo monitors will also demonstrate the required monitoring capability of a minimum average of six evacuees per minute.

- 6.c.1 J.10.h,12 **Temporary Care of Evacuees – Managers of congregate care facilities** demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines (found in MASS CARE-Preparedness Operations, ARC 3031). Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities.

The American Red Cross as Congregate Care Center Manager will demonstrate by play and or interview Center setup and operation following SOP III.23 including requirements of ARC 3031.

COUNTY OF SAN LUIS OBISPO - EVACUEE MONITORING DECONTAMINATION
CONGREGATE CARE & EMERGENCY WORKER & VEHICLE MONITORING &
DECONTAMINATION EXERCISE

APRIL 30, 2003 OBJECTIVES AND EXTENT OF PLAY

6.c.1 *County Social Services and Behavioral Health in support and assistance of Congregate Care will demonstrate procedures in County SOP III.07*

6.b.1 K.5.b **Monitoring and Decontamination of Emergency Worker Equipment** – The facility/ORO has adequate procedures and resources for the accomplishment of monitoring and decontamination of emergency worker equipment including vehicles.

These Criteria will be demonstrated out of sequence on June 4, 2003 at County El Chorro Regional Park Camp Ground, in an area adjacent to the camp ground shower facilities beginning at 10AM. Refer to Exercise Facilities and Functional Locations and Exception to Extent of Play, 11.

County Fire personnel and equipment will demonstrate procedures addressing this criteria following County SOPs III-06,HP 6,8 and 9 including monitoring, decontamination, EWEC procedures and knowledge of administrative exposure limits, contamination threshold values and EWEC procedures. Any interview questions should be addressed to the decontamination facility manager. Questions should address procedural implementation issues and not hypothetical decision making situations.

COUNTY OF SAN LUIS OBISPO - EVACUEE MONITORING DECONTAMINATION
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APRIL 30, 2003 OBJECTIVES AND EXTENT OF PLAY

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APPENDIX 4.

EXERCISE SCENARIO

This appendix is 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 Camp Roberts Drill on April 30, 2003, and the El Chorro Drill on June 4, 2003. This scenario was submitted by the Diablo Canyon Power Plant and San Luis Obispo County and approved by FEMA RIX.

Requests for copies of the scenario should be made to the Diablo Canyon Power Plant.

5.0 SCENARIO

5.1 NARRATIVE SUMMARY

The 2003 Camp Roberts Congregate Care Exercise is a continuation of the 2002 DCPD Graded Exercise.

Due to the severity of this accident, a General Emergency has been declared. San Luis Obispo County Direction and Control has mandated the evacuation of the following Protective Action Zones (PAZs):

- PAZ #1 - 0-2 mile radius from the Diablo Canyon Power Plant.
- PAZ #2 - 2-6 mile radius from the Diablo Canyon Power Plant.
- PAZ #5 - Baywood Park, Los Osos, Turri Road, Los Osos Valley Road west of Turri Road, Clark Valley.
- PAZ #9 - Route 1 west of Cuesta College, Morro Bay, Cayucos, Whale Rock Reservoir.

Camp Roberts has been activated, and the support personnel from the County and American Red Cross are ready to receive evacuees.

The timeline of the 2002 Annual Exercise has been modified to accommodate the performance of this exercise (See Section 5.3 Timeline).

5.2 INITIAL CONDITIONS

A series of terrorist attacks were committed this morning against Diablo Canyon. Ultimately, a loss of coolant accident (LOCA) occurred, complicated by a loss of all vital power, which resulted in significant core damage in the Unit-1 reactor. A pressure increase inside containment following the LOCA has resulted in a breach of containment integrity, and radioactive gases and fission products are being released to the environment via the Unit-1 plant vent. At this point San Luis Obispo County Reception & Care Centers are activated, and Department of Social Services (DSS) advises that Camp Roberts will be opened to receive evacuees.

5.3 TIMELINE

An overview of the events leading up to the evacuation of the public has been described in section 5.1. The following timeline is provided to detail the actions taken by San Luis Obispo County, the American Red Cross-San Luis Obispo Chapter, and the California National Guard at Camp Roberts. The underlined times listed below follow the timeline of the 2002 Exercise, developed from scenario events along with actual player response times. The modified times for purposes of this Congregate Care Exercise are bolded in the right column.

5.0 SCENARIO

5.3 TIMELINE continued

Annual Exercise Times 2002	Cong. Care Exercise Times 2003
0754 -	2:40 Alert #29 declared due to a bomb being found and Shift Manager judgment
0925 -	4:12 Loss of 230kV Startup Power due to car bomb.
0945-	4:32 Loss of 500kV transmission line to DCPD due to airplane attack on substation.
1016 -	5:03 Site Area Emergency (SAE) #17 is declared based on RM judgement.
1022 -	5:22 A second device detonates, causing a loss of high pressure cooling pumps
1017 -	5:04 EOC decision for activation of Congregate Care Center.
1125 -	6:12 Camp Roberts is open for ARC and DSS to set up for evacuees.
1210 -	6:57 Design Basis Loss of Coolant Accident (LOCA) occurs, and containment purge valves fail due to high containment pressure, resulting in release path to plant vent. Fuel damage is occurring and a high level radioactive release is now in progress.
1214 -	7:01 A General Emergency is declared due to LOCA with high containment radiation levels.
1215 -	7:02 Recommendation for evacuation of PAZs 1 & 2 submitted to Emergency Services Director located in County Direction & Control.
1220 ..	7:07 Direction & Control issues a PAD to evacuate PAZ 1 & 2.
1330 -	7:51 Dose projection indicate TEDE PAG (1 rem) exceeded in PAZs 1, 2, 5 and 9; a dose-based PAR upgrade is formulated and approved by for evacuation of these zones.
1338 -	7:57 Direction & Control issues a PAD to evacuate PAZs 5 & 9.
1405 -	8:52 San Luis Obispo Department of Social Services (DSS) advises that Camp Roberts will be opened to receive evacuees.
1435 -	9:22 California Highway Patrol closes off north and southbound traffic on highway 101 (north of Camp Roberts and south of Five cities area).
1513 -	10:00 Camp Roberts is ready to receive evacuees.

5.0 SCENARIO

5.1 NARRATIVE SUMMARY

The 2003 El Chorro Regional Park Exercise is a continuation of the 2002 Graded Exercise.

Due to the severity of this accident, a General Emergency has been declared. San Luis Obispo County Command has mandated the evacuation of the following Protective Action Zones (PAZs):

- PAZ #1 - 0-2 mile radius from the Diablo Canyon Power Plant.
- PAZ #2 - 2-6 mile radius from the Diablo Canyon Power Plant.
- PAZ #5 - Baywood Park, Los Osos, Turri Road, Los Osos Valley Road west of Turri Road, Clark Valley.
- PAZ #9 - Route 1 west of Cuesta College, Morro Bay, Cayucos, Whale Rock Reservoir.

El Chorro Regional Park has been activated, and the support personnel from the County and PG&E are ready to receive emergency workers and their work vehicles.

The timeline of the 2002 Graded Exercise has been modified to accommodate the performance of this exercise (See Section 5.3 Timeline):

5.0 SCENARIO

5.2 INITIAL CONDITIONS

A series of terrorist attacks were committed this morning against Diablo Canyon. Ultimately, a loss of coolant accident (LOCA) occurred, complicated by a loss of all vital power, which resulted in significant core damage in the Unit-1 reactor. A pressure increase inside containment following the LOCA has resulted in a breach of containment integrity, and radioactive gases and fission products are being released to the environment via the Unit-1 plant vent. At this point San Luis Obispo County Reception & Care Centers are activated, and Department of Social Services (DSS) advises that Camp Roberts will be opened to receive evacuees.

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An overview of the events leading up to the evacuation of the public has been described in section 5.1. The following timeline is provided to detail the actions taken by San Luis Obispo County, the American Red Cross-San Luis Obispo Chapter, and the California National Guard at Camp Roberts. The underlined times listed below follow the timeline of the 2002 Exercise, developed from scenario events along with actual player response times. The modified times for purposes of this Congregate Care Exercise are bolded in the right column.

5.3 TIMELINE continued

Annual Exercise Times 2002	Cong. Care Exercise Times 2003	
0754	2:40	Alert #29 declared due to a bomb being found and Shift Manager judgment
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1016	5:03	Site Area Emergency (SAE) #17 is declared based on RM judgement.
1022	5:22	A second device detonates, causing a loss of high pressure cooling pumps
1017	5:04	EOC decision for activation of Congregate Care Center.
1125	6:12	Camp Roberts is open for ARC and DSS to set up for evacuees.
1210	6:57	Design Basis Loss of Coolant Accident (LOCA) occurs, and containment purge valves fail due to high containment pressure, resulting in release path to plant vent. Fuel damage is occurring and a high level radioactive release is now in progress.
1214	7:01	A General Emergency is declared due to LOCA with high containment radiation levels.

5.0 SCENARIO

- 1215 - **7:02** Recommendation for evacuation of PAZs 1 & 2 submitted to Emergency Services Director located in County Direction & Control.
- 1220 - **7:07** Direction & Control issues a PAD to evacuate PAZ 1 & 2.
- 1330 - **7:51** Dose projection indicate TEDE PAG (1 rem) exceeded in PAZs 1, 2, 5 and 9; a dose-based PAR upgrade is formulated and approved by for evacuation of these zones.
- 1338 - **7:57** Direction & Control issues a PAD to evacuate PAZs 5 & 9.
- 1405 - **8:52** San Luis Obispo Department of Social Services (DSS) advises that Camp Roberts will be opened to receive evacuees.
- 1435 - **9:22** California Highway Patrol closes off north and southbound traffic on highway 101 (north of Camp Roberts and south of Five cities area).
- 1513 - **10:00** El Chorro Regional Park is ready to receive Emergency Workers and their work vehicles.