

**APPENDIX 4-3**  
**INSTALLATION SPILL CONTINGENCY PLAN (ISCP)**  
**PUEBLO CHEMICAL DEPOT**  
**PUEBLO, COLORADO**



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## LIST OF ACRONYMS

AR	Army Regulation
CAIRA	Chemical Accident/Incident Response and Assistance
CDPHE	Colorado Department of Public Health and Environment
CMA	Chemical Materials Agency
DA	Department of Army
DA Pam	Department of Army Pamphlet
EMO	Environmental Management Office
IRT	Installation Response Team
ISCP	Installation Spill Contingency Plan
LESF	Law Enforcement and Security Division
LTC	Lieutenant Colonel
MSDSs	Material Safety Data Sheets
OC	Operations Center
OSIC	On-Scene Incident Commander
PAO	Public Affairs Officer
PCAPP	Pueblo Chemical Agent-Destruction Pilot Plant
PCBs	Polychlorinated Biphenyls
PCD	Pueblo Chemical Depot
PDS	Personnel Decontamination Station
POL	Petroleum, Oil, Lubricants
SPCC	Spill Prevention, Control and Countermeasures
USAEC	U.S. Army Environmental Center
USEPA	U.S. Environmental Protection Agency

#### 4.2.1 INTRODUCTION

The Installation Spill Contingency Plan (ISCP) is established to identify procedures to be used at Pueblo Chemical Depot (PCD) to respond to discharges of oil and hazardous substances to the environment. This plan applies to all tenants and contractors who work at PCD.

The ISCP identifies resources, equipment, personnel, and procedures to be used to prevent POL or hazardous substance spills from reaching surface and subsurface water. This plan is also designed to minimize hazards to human health and the environment from fires, explosions, or any unplanned sudden or gradual release of oil or hazardous substances to air, soil, or surface water, and will be carried out whenever any of these incidents occur. It also addresses potential sources of oil or hazardous substances identified in the Oil and Hazardous Substance Spill Prevention, Control and Countermeasure (SPCC) Plan. It identifies the On-Scene Incident Commander (OSIC), the Installation Response Team (IRT), and their responsibilities for implementing the plan. The ISCP is not applicable to incidents involving toxic chemical munitions. When chemical munitions are involved, the Chemical Accident/Incident Response and Assistance (CAIRA) Plan will be utilized. Additionally, this plan does not cover policies and procedures applicable to nuclear accidents and incidents.

This plan is in compliance with requirements established by AR 200-1; the National Oil and Hazardous Substances Pollution Contingency Plan developed in response to provisions of the Federal Water Pollution Control Act Amendments of 1972; the Resource Conservation and Recovery Act; and 40 CFR Part 264, Subpart D, Contingency Plan and Emergency Procedures. The provisions contained within this plan apply to any activity, commercial or otherwise on PCD including those involving employees, contractors or tenants.

#### 4.2.2 RESPONSIBILITIES

A number of PCD personnel will be available to support implementation of the ISCP. Divisions will provide personnel, equipment, and expertise to allow proper response to spills of oil or hazardous substances. The phone numbers and locations of all positions described below are provided on Table 4.2.1-1.

##### 4.2.2.1 Environmental Management Office Chief

The Environmental Management Office (EMO) Chief has overall responsibility for ensuring the ISCP is implemented. The Chief will have the following duties:

- Ensure the necessary resources are available to meet the requirements set forth in this plan;
- Provide personnel from the office to act as environmental consultants.
- Provide necessary notifications to federal, state, and local authorities during a reportable spill;

- Provide for emergency issuance of contracts for restoration and disposal companies if necessary;
- Maintain after action reports of all actual spills and training spills; and
- Maintain a current ISCP, which will be reviewed and evaluated at the same time as the SPCC Plan. The SPCC Plan will be reviewed and evaluated at least once every 3 years, per 40 CFR §112.5. The cited regulation requires that any change in facility design, construction, operation or maintenance which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shore lines must be entered into the plan within six months of the change, and then approved by a registered professional engineer. Any amendment made to the SPCC Plan must be reflected in the ISCP. It will be the responsibility of EMO to ensure that a copy of the ISCP and all revisions to the ISCP are:
  - Maintained at the facility;
  - Submitted to the local fire department.
  - Provided to the Colorado Department of Public Health and Environment (CDPHE), U.S. Environmental Protection Agency (USEPA), and other appropriate members on the facility mailing list as revisions to the Hazardous Waste Permit; and
  - Report all reportable spills through proper channels to PCD, Department of the Army (DA), USEPA, CDPHE, and other civil authorities as required. This will include the preparation of all written reports. Reportable spills are defined in AR 200-1 and listed in Appendix B of this plan.

#### 4.2.2.2 On-Scene Incident Commander

The Chief of the PCD Fire and Emergency Services Branch is appointed as the IOSC. The IOSC programs and budgets for personnel, materials and equipment required for spill prevention and containment at the installation. The OSIC, in coordination with the Installation Commander, has authority to commit resources to carry out this plan.

The OSIC coordinates and directs all Army efforts to control clean up of Army-caused spills on or near PCD. The OSIC will utilize available equipment and manpower from the IRT to evaluate and respond to all spills. The OSIC will coordinate with the PCD Operations Center (OC) and EMO to ensure they are informed of the progress of clean up efforts.

The OSIC, coordinating with officials responsible for implementing the SPCC Plan, will provide yearly training to test the effectiveness of the ISCP personnel and equipment. The purpose of this training is to ensure timely and effective response in case of a spill. Actual spill events may be used as yearly training to test the effectiveness of the ISCP.

The IOSC will be responsible for inventory of equipment and maintaining the fire and emergency services memorandum of agreements as specified in Section 4.2.3.11. Information with regard to equipment changes will be provided to EMO to update the spill plan as necessary.

#### 4.2.2.3 Office of Legal Counsel

The Office of Legal Counsel will assist the OSIC to ensure that records and samples are adequate for legal purposes, which may include litigation due to pollutant flow past installation boundaries.

#### 4.2.2.4 Public Affairs Officer

Dealing with the public or media is a primary responsibility during an oil or hazardous substance release. The Public Affairs Officer (PAO) will evaluate probable reactions from the media and public. Additionally, in conjunction with the Office of Legal Counsel, the PAO will prepare news releases and responses to questions from the public. The PAO may also escort civilian news media and public representatives.

#### 4.2.2.5 Public Works Office

Equipment operators and laborers may be needed during spill response to perform various duties. Equipment that can only be operated by members of the Public Works Office will not be allowed in the hot zone, but may be used in locations where there is no potential for equipment operators to be exposed.

#### 4.2.2.6 Risk Management Division Chief

The Risk Management Division is composed of the Fire and Emergency Services Branch, Surveillance Branch, and the Safety Office. Because firefighters make up the IRT, the Risk Management Division Chief is key in ensuring the members of the division are proficient in their roles.

##### 4.2.2.6.1 Fire and Emergency Services Branch

In the absence of the appointed OSIC and during off duty hours, the Chief or On-Duty Chief of the Fire and Emergency Services Branch will carry out the duties of the OSIC.

The Chief of Fire and Emergency Services Branch will ensure that all firefighters are trained on the Initial Oil or Hazardous Substance Spill Report, spill response procedures, and proper follow-up actions. The Initial Oil or Hazardous Substance Spill Report is contained in Appendix A.

##### 4.2.2.6.2 Safety Office

The Safety Office will be available to assist the OSIC in determining the cause of spills and the extent of the safety hazards created by such spills (risk assessment and mitigation recommendations).

#### 4.2.2.7 Law Enforcement and Security Division

The Law Enforcement and Security Division (LESD) will assist the OSIC in securing and safeguarding the spill site for the duration of the clean-up activities. LESD will provide personnel to aid in evacuation of individuals if necessary. In the event that only four firefighters are on duty, personnel will staff the fire station alarms and telephones during duty hours. During non-duty hours, LESD will provide security personnel to staff the fire station alarms and telephones during an incident.

#### 4.2.2.8 Occupational Health Clinic

The Occupational Health Clinic will coordinate with and provide appropriate environmental and occupational health support to assist the OSIC. When requested, the clinic will assess hazards and potential hazards and recommend appropriate action to the OSIC.

#### 4.2.2.9 Pest Control Officer

PCD contracts for all pest management activities. The Pest Control Officer will coordinate with the OSIC in the event of a spill associated with a pest control contractor. Prior to allowing a pest control contractor to start work on the installation, the Pest Control Officer will coordinate with the OSIC, Fire and Emergency Services, and the contractor. This coordination will occur at least annually or any time a different pest control contractor is utilized at the installation. Material Safety Data Sheets (MSDSs) will be provided to the OSIC, and Fire and Emergency Services. The Pest Control Officer will ensure MSDSs are provided to the OSIC and the Fire Department if different chemicals, other than those indicated during the annual or initial review, are utilized during pest control activities.

### 4.2.3 ORGANIZATION

#### 4.2.3.1 Training

Personnel responsible for implementation of the ISCP will establish a thorough training program per OSHA, 29 CFR §§1910 and 1926, as well as a periodic health monitoring program for military and civilian personnel, including project managers, employed or otherwise responsible for carrying out official duties at oil and hazardous substance spill sites. Tenants will provide appropriate training for their own employees.

The PCD Training Office has the responsibility to ensure that training for all members of the IRT is scheduled, coordinated, and completed. Training will be conducted annually. The PCD Training Office will maintain official records of such training. Additionally, the OSIC will plan and carry out annual exercises to test implementation of the ISCP. Records documenting exercises will be maintained by the Training Office. Actual spills can be used to meet the annual training requirement.

#### 4.2.3.2 Response

At all times, there must be at least one employee at the installation that can act as the OSIC. The OSIC will be responsible for coordinating all emergency response measures. The OSIC must be thoroughly familiar with all aspects of the SPCC Plan, the ISCP, all operations and activities at

the installation, the location and characteristics of waste handled, the location of pertinent records at the installation, and the installation layout. In addition, this person must have the authority, in coordination with the Installation Commander; to commit the resources needed to carry out the ISCP.

#### 4.2.3.3 Initial Report

Anyone may report a spill. All personnel or employees are required to immediately report any observed oil, hazardous substance or pesticide spill, or evidence of a spill, such as a slick or sheen on water from oil, gasoline, or other hazardous polluting substance. Spill events are to be reported to the PCD OC, the OSIC, and EMO.

Persons discovering a release will also take immediate action, if feasible, to control the release (e.g., stop leaks, isolate spill). In all instances, the discoverer will not endanger their personal safety to control the release. The discoverer shall call 911 as soon as possible. Employees dealing with hazardous substances will be trained on hazardous substances and the SPCC Plan, which identifies locations of hazardous substances and proper reporting procedures during releases of hazardous substances. In less serious circumstances, it may be appropriate to address the release and then make notification.

Personnel from EMO, the Fire and Emergency Services Branch, and the OC are supplied with worksheets to record the initial reports of an oil or hazardous substance spill, a copy of which is included as Appendix A. The completed original is then turned over to the EMO for record.

#### 4.2.3.4 Actions During an Oil or Hazardous Substance Spill

##### 4.2.3.4.1 Immediate Action

The OSIC will be notified immediately. Refer to Table 4.2.1-1 for the OSIC phone number. The OSIC will be responsible for implementing the ISCP. In the absence of the appointed OSIC, the On-Duty Chief of the Fire Emergency Services Branch will serve as the OSIC.

The OSIC has the responsibility to:

- Deploy the IRT;
- Determine the magnitude of the spill;
- Notify the Installation Commanding Officer;
- Make necessary notifications to EMO, Security, Public Works, the Pest Control Officer, the Safety Office, Public Affairs, and CMA Environmental and Legal Counsel; and
- Determine the quantity of material released and determine whether a reportable quantity of oil (25 gallons or more) or hazardous substance (refer to Appendix B) was released to the environment.

When a pesticide spill occurs, the following actions will be taken in addition to those listed above:

- Identify the pesticide, herbicide or rodenticide container to identify the poison category;
- Refer to the MSDS for that substance to determine the appropriate hazards and spill response information (the OSIC will have a copy of the MSDS for any chemicals being used);
- Seek immediate medical attention for those individuals involved in the spill;
- Notify the PCD Occupational Health Clinic and provide the pesticide name and poison category;
- Contact the Pest Control Officer to aid in the response; and
- Personnel exposed to the substances should remove contaminated clothing and decontaminate affected areas using methods identified on the MSDS for that hazardous substance.

#### 4.2.3.4.2 Emergency Situations

Whenever there is an emergency situation involving hazardous wastes at PCD, the OSIC will immediately take the following actions utilizing the appropriate portions of this section:

- Notify the Installation Commanding Officer of the emergency situation.
- Assemble the OC emergency response personnel. Refer to Section 4.2.3.6 for details regarding the OC.
- Activate internal alarms or communication systems, where applicable, to notify all installation personnel.
- Notify appropriate state or local agencies with designated response roles if their assistance is required.

Whenever there is a release, fire, or explosion, the OSIC must immediately identify the character, exact source, amount, and area of extent of any released materials. This may be done by observation or review of facility records or manifests and, if necessary, by chemical analysis.

The OSIC, in coordination with EMO and appropriate state, federal and local authorities, must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemicals used to control fire and heat induced explosions).

If the OSIC determines that the facility has had a release, fire, or explosion that could threaten human health or the environment outside the facility, the OSIC must report those findings as identified in the following paragraphs:

- If the assessment indicates that evacuation of local areas may be advisable, the OSIC must immediately notify Public Safety Officials. The OSIC must be available to make downwind hazard analysis and help officials decide whether local areas should be evacuated.
- EMO must immediately notify the National Response Center, (800) 424-8802. The report must include:
  - Name and telephone number of person making notification;
  - Name and address of facility;
  - Time and type of incident (e.g., spill, fire, explosion);
  - Name and quantity of material involved to extent known;
  - The extent of injuries, if any; and
  - The possible hazards to human health or the environment outside the facility.

During an emergency, the OSIC must take all responsible measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the installation. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

If a facility on the installation stops operations in response to a fire, explosion, or release, the OSIC must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

Immediately after an emergency, the OSIC, in coordination with EMO, must provide for treating, storing, or disposing of recovered waste, contaminated soil, or surface water, or any other material that results from a release, fire, or explosion at the installation.

The OSIC must ensure that, in the affected area(s) of the installation:

- No waste that may be incompatible with the released material is treated or stored until clean-up procedures are completed and
- All emergency equipment listed in the contingency plan is replaced, decontaminated, and in appropriate condition for its intended use before operations are resumed.

EMO will notify the appropriate state and local authorities that the installation is in compliance with the above paragraph before operations are resumed in the affected area(s) of the installation.

#### 4.2.3.4.3 Follow-up Reporting Requirements

EMO must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. EMO must contact the Colorado Department of Public

Health and Environment (CDPHE) within 24 hours of implementing the ISCP. Within 15 calendar days after the incident, in conjunction with the Office of Legal Council, EMO must submit a written report on the incident to the EPA Region VIII Administrator and CDPHE, Hazardous Materials and Waste Management Division. The written report will be hand-carried or sent by certified mail.

The written report submitted to CDPHE must include the following:

- Description of the incident and its cause;
- The time period associated with the incident (including exact dates and times);
- Whether any non-compliance associated with the incident has been corrected;
- If the non-compliance has not been corrected, include time estimates for making corrections; and
- Steps taken or planned to prevent future recurrence of the incident.

The following information must be included on the report submitted to USEPA:

- Name, address, and telephone number of EMO;
- Name, address, and telephone number of the facility;
- Date, time, and type of incident (e.g., spill, fire, explosion);
- Name and quantity of material(s) involved;
- The extent of injuries, if any;
- An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
- Estimated quantity and disposition of recovered material that resulted from the incident.

One report can be prepared and submitted to both parties as long as the appropriate information is included. Addresses and phone numbers for USEPA and CDPHE are provided on Table 4.2.1-2.

The OC will determine and execute any additional Army and Department of Defense reporting requirements.

#### 4.2.3.5 Actions to be Taken During a Release at the Chemical Storage Igloos and the Permitted Hazardous Waste Igloos, G1009, G1109, G1107, G1110, and G203

Response action to all incidents involving agent-related materials and/or waste will be carried out as identified in the PCD Chemical Accident/Incident Response and Assistance (CAIRA) Plan. The installation OC emergency response personnel will be immediately activated. Permitted hazardous waste storage areas, Igloos G1009, G1109, G1107, G1110, and G203 are located within the Munitions Storage Area A. Details surrounding potential spills at these igloos are contained within the SPCC Plan. In the event of a chemical accident or spill, the CAIRA plan has operational priority and is executed by the installation commander. The plan includes an evacuation plan, containment, decontamination, clean up, recovery and remedial operations.

#### 4.2.3.6 Operations Center (OC)

This center is located in the installation OC at Building 2. The OC will be utilized whenever there is an imminent emergency situation. Upon arrival at the spill location, the OSIC will assess the severity of the incident (e.g., casualties, fire or explosion hazard, large release) and determine the appropriate coordination site. If the OC is to be utilized, the OSIC, Commander, or OC personnel will immediately contact personnel needed in the OC.

Refer to Table 4.2.1-1 for appropriate phone numbers.

#### 4.2.3.7 Installation Response Team (IRT)

##### 4.2.3.7.1 IRT Personnel

The IRT will be alerted immediately and have the duty of initial response at an incident. The IRT will consist of firefighters. All firefighters will be members of the IRT and will be proficient in responding to an incident. At a minimum, four firefighters are on duty at all times. If additional firefighters are needed to respond, they will be called from the Fire Recall list.

##### 4.2.3.7.2 IRT Equipment

Table 3-1 lists available equipment for use during emergency response. The equipment listed includes heavy equipment, trucks, absorbent socks, PIG kits, mats, and fire fighting equipment. Equipment that can only be operated by members of the Public Works Office will not be allowed in the hot zone, but may be used in locations where there is no potential for equipment operators to be exposed.

#### 4.2.3.8 Routine Surveillance to Detect Spills

All employees of PCD are charged with the responsibility to recognize and report spills. In addition, EMO personnel will conduct periodic surveys of all oil and chemical storage facilities on PCD to detect unreported discharges. The SPCC Plan lists estimated maximum releases and controls to be taken at potential spill sites.

#### 4.2.3.9 Procedures for Spill Mitigation

##### 4.2.3.9.1 Identification

Primary identification of pollutants will depend on the ability of the OSIC or the IRT to trace the discharge to its source. Whenever possible, container labels will be preserved to include a complete identification for preparing incident reports. When identification is not possible by this method, samples will be taken to a local laboratory for immediate analysis.

##### 4.2.3.9.2 Containment

In all cases, employees should attempt to confine the spill in the smallest area possible using earth dams, berms and/or other man-made barricades. Inlets to sewer or stormwater systems will be blocked or bermed. Response personnel will ensure drainage ways are protected as well.

##### 4.2.3.9.3 Removal

If possible, oil or liquids should be removed by using pumps. For smaller amounts, use sorbent materials (pads, safe step, etc.) to absorb the contaminant. On water, only floating or retrievable sorbent products should be used.

##### 4.2.3.9.4 Reclamation

When possible, hazardous substances will be reclaimed and containerized. An attempt will be made to reclaim and recycle waste oil or other hazardous substances. Environmental response contractors may be called for assistance if the IRT is not able to adequately respond.

##### 4.2.3.9.5 Disposal

All oil, gas, or other substances that are not useable after reclamation will be disposed in accordance with existing State of Colorado and Federal regulations. Environmental response contractors may be called for assistance if the IRT is not able to adequately respond. Contaminated soil may be contained and sampled to determine whether it is a hazardous or non-hazardous material. Appropriate disposal alternatives will be formulated based on the sample analysis. Disposal alternatives will conform with appropriate federal and state regulatory requirements. EMO will be consulted prior to disposal of material.

##### 4.2.3.9.6 Restoration

EMO will aid in determining restoration actions for the area of contamination. Environmental response contractors may be called for assistance if the IRT is not able to adequately respond.

##### 4.2.3.9.7 Decontamination

All equipment and clothing will be decontaminated in accordance with currently accepted decontamination practices. When working with certain hazardous substances (e.g., PCBs), it may be necessary to dispose of the hand tools, overshoes, and gloves with the waste. Such equipment will be replaced in this circumstance.

#### 4.2.3.10 Priority Water Areas

PCD has one permanent surface drainage stream, Boone Creek, to protect. Priority will be given to Boone Creek and the water wells. Second priority goes to any drainage patterns that sometimes wash in the spring and could possibly result in a pollutant leaving the installation. The SPCC Plan also contains a discussion related to water drainage areas at PCD.

#### 4.2.3.11 Local Arrangements and Memorandum of Agreements (MOAs)

Reciprocal Fire Protection Agreements and MOAs have been made with the Boone Volunteer Fire Department, Pueblo Rural Fire Department, and the Transportation Technology Center Fire Department. MOAs for medical support have been made with local hospitals, Fort Carson, and Flight for Life. Copies of these agreements shall be maintained by the OSIC, Fire Chief, Building 61 for reference and will be available for review upon request.

#### 4.2.3.12 Evacuation Plan

In the event of a health, safety or life-threatening accident, the affected facility, facilities, or the installation will be evacuated in accordance with the evacuation plan for that location. Tenants and contractors will submit an evacuation plan to their PCD host. Evacuees will be directed to a safe area by Security under direction of the OSIC.

## REFERENCES\*

AR 200-1, update, Environmental Protection and Enhancement, Chapter 3, Oil and Hazardous Substances Spills.

Council on Environmental Quality National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 1510; 40 FR 6282, Feb 10, 1975, amended 41 FR 12658, March 26, 1976).

AMC Reg 11-5, Environmental Enhancement and Pollution Abatement; Part 17, Oil Spills, Prevention and Control.

Environmental Protection Agency Regulations on Criteria for State, Local and Regional Oil Removal Contingency Plans (40 CFR 109).

Environmental Protection Agency Regulations on Oil Pollution Prevention (40 CFR 112).

Environmental Protection Agency Regulations on Designation of Hazardous Substances under the Federal Water Pollution Control Act (40 CFR §116).

Environmental Protection Agency Regulations on Determination of Reportable Quantities for Hazardous Substances (40 CFR §117).

Federal Water Pollution Control Act, 33 USC §1321 as amended by Clean Water Act of 1977 (commonly referred to as Clean Water Act), §311, Oil and Hazardous Substance Liability.

AR 50-6, Chemical Surety.

AR 385-61, The Army Chemical Agent Safety Program.

DA Pam 385-61, Toxic Chemical Agent Safety Standards.

6 CCR 1007-3 Response to Leaks, Spills, and Disposition, §264.196.

\* All references are latest revision unless otherwise indicated.

## **TABLES**

Table 4.2.1-1: Telephone Numbers for Key PCD and Army Personnel

Table 4.2.1-2: Telephone Numbers and Addresses for Key Organizations

Table 4.2.2-3: List of Available Equipment for use by the Installation Response Team

**Table 4.2.1-1: Telephone Numbers for Key PCD and Army Personnel**

<b>Title</b>	<b>Location</b>	<b>Telephone Number</b>
Operations Center	Building 2	4211 <sup>(1)</sup>
Environmental Management Office	Building 49N	4201 <sup>(1)</sup>
OSIC (Chief, Fire and Emergency Services Branch)	Building 61	4688 <sup>(1)</sup>
Installation Commanding Officer	Building 1	4141 <sup>(1)</sup>
Public Works	Building 3	4145 <sup>(1)</sup>
Office of Legal Counsel	Aberdeen, MD	4652 <sup>(2)</sup>
CMA Environmental	Aberdeen, MD	4199 <sup>(2)</sup>
Public Affairs Officer	Building 1	4135 <sup>(1)</sup> 4119 <sup>(1)</sup>
Risk Management	Building 3	4544 <sup>(1)</sup>
Fire and Emergency Services	Building 61	4655 <sup>(1)</sup>
Safety	Building 3	4544 <sup>(1)</sup> 4987 <sup>(1)</sup> 4881 <sup>(1)</sup>
Law Enforcement and Security	Building 54	4962 <sup>(1)</sup>
Occupational Health Clinic	Building 5	4176 <sup>(1)</sup>
Pest Control Officer	Building 3	4279 <sup>(1)</sup>

NOTES:

<sup>(1)</sup> Commercial Area Code is (719) 549, which corresponds to DSN 749

<sup>(2)</sup> Commercial Area Code is (410) 671, which corresponds to DSN 584

**Table 4.2.1-2: Telephone Numbers and Addresses for Key Organizations**

Title	Address	Telephone Number
Colorado Department of Public Health and Environment –Emergency Management Program	8100 Lowry Blvd. Denver, CO 80228	(877) 518-5608
Colorado Department of Public Health and Environment	4300 Cherry Creek Dr. South Denver, CO 80246	(303) 692-3300
U.S. Environmental Protection Agency Region VIII	One Denver Place 999 18 <sup>th</sup> Street, Suite 500 Denver, CO 80202-2405	(303) 312-6981
Pueblo Chemical Depot Fire Prevention/Protection Department	Building 61 Pueblo Chemical Depot	(719) 549-4655
Pueblo County Emergency Operations Center, LEPC	NA	(719) 583-6250 (non-emergency) Sheriff 911
National Response Center	NA	(800) 424-8802
Pueblo Fire Department	1551 Bonforte Pueblo, CO 81001	(719) 542-1352
Colorado Emergency Planning Commission (CEPC), c/o Colorado Department of Public Health and Environment SARA Title III Reports	4300 Cherry Creek Drive South Denver, CO 80246-1530	(877) 518-5608



**Table 4.2.2-3 List of Available Equipment for Use by the Installation Response Force**

Equipment	Capability	Quantity <sup>a</sup>	Location <sup>b</sup>
<b>CHEMICAL OPERATIONS</b>			
RTAP	Air Monitoring	9	BLDGs 593/129Z & 85 LAMS
MINICAMS <sup>®</sup>	Air Monitoring	47	BLDGs 593/129Z & RTAPs
Crew Vans	Personnel Transport	2	BLDG 129
Shower Trailer	For Hasty Decontamination	3	BLDG 491
Forklift (2,000 LB Capacity)	Movement of Pallet/Munitions	3	BLDG 491
Forklift (3,000 LB Capacity)	Movement of Ammunition Pallets	3	BLDG 45
Forklift (6,000 LB Capacity)	Movement of Security Block	2	BLDG 491
Forklift (8,000 LB Capacity)	Loading Ammunition Pallets	2	BLDGs 491 & 45
Forklift (15,000 LB Capacity)	Movement of Security Block	2	BLDGs 491 & 593
1,000 cubic feet per minute filter (1,000 cfm)	Immediate Igloo Filtration System	5	BLDGs 491 (2) & 593 (3)
Light Generator Trailer	Lighting Large Outside Work Areas	2	BLDG 593
Shower Trailer, Enclosed	Personnel Decontamination and Changing Area	2	BLDG 593
Mover Tilt Trailers	Transport Trailer for Forklifts to and from Work Areas	2	BLDG 593
Modified Ammunition Van (MAV)	Ammunition Movement	2	BLDG 593
M12A1 Decontamination Truck	Equipment and Area Decontamination	2	BLDGs 491 & 593
Multipurpose Decontamination System (MPDS)	Personnel Decontamination	2	BLDGs 593 & 45
Single Round Containers (SRCs) – Certified and ready to use at any time	Primary Containment	4	Igloo C-710
<b>DEPARTMENT OF PUBLIC WORKS</b>			
Excavator	Backhoe	1	BLDGs 45 & 47
Road Grader	Road Grading, Ditch Cleaning	1	BLDG 45
Front End Loader	3 CY Capacity	1	BLDG 47
Dump Truck	5 CY Capacity	1	BLDGs 46 & 47
Skid-Steer Loader (Bobcat)	1 CY Capacity	1	BLDGs 45 & 47
Pickup Truck	General Purpose Transportation	2	BLDG 45

**Table 4.2.2-3 List of Available Equipment for Use by the Installation Response Force (Continued)**

Equipment	Capability	Quantity <sup>a</sup>	Location <sup>b</sup>
<b>FIRE DEPARTMENT</b>			
HAZMAT Response Trailer/Fire and Emergency Services	Contains 1 Overpack Drum, 1 55-gallon drum, 8 multi-threat suits, 2 TYVEX <sup>®</sup> suits, 6 Splash Protection Kits, 2 Spill Responder Bags, 4 Grey Water Collection Pools, 1 Inflatable Shower Tent, 7 Bags Assorted Absorbent Material, 1 Hose w/Nozzle, 3 Wand Kits	1	North Fire Station
Environmental Response Vehicle (Off Road Capabilities)	Contains 1 Pack of Absorbent Pads, 2 Small Pigs, 1 Large Pig, 1 Cleanup Bag, 1 Shovel and PPE. Basic Pickup, 4 WD Crew Cab	1	South Fire Station
Inspectors Vehicle	Basic Pickup with no Equipment, 4-Wheel Drive Crew Cab	1	South Fire Station
Pierce 61-Foot Skyboom	540 gallons water, 20 gallons foam, 1,500 gpm Pumping Capacity	1	North Fire Station
Rescue Truck and Equipment, Rescue 1	Emergency Equipment, Command and Control 770 Gallons Water, 1,500 gpm Pumping Capacity	1	North Fire Station
Engine 12, Pierce Pumper	750 Gallons Water, 50 Gallons Foam, 1,500 gpm Pumping Capacity	1	South Fire Station
Engine 1	750 Gallons Water, 1,500 gpm Pumping Capacity	1	South Fire Station
Ladder 2	500 Gallons Water, 1,500 gpm Pumping Capacity	1	South Fire Station
Brush 3	4-Wheel Drive, 400 Gallons Water, 40 gpm Pumping Capacity	1	North Fire Station
Brush 4	4-Wheel Drive, 400 Gallons Water, 40 gpm Pumping Capacity	1	South Fire Station
KME Water Tender	1,200 Gallons Water, 250 gpm Pumping Capacity	1	South Fire Station
Chief 1	4-Wheel Drive Mobile Command	1	South Fire Station
Chief 2	4-Wheel Drive Mobile Command	1	North Fire Station
FD Ambulance 1	Emergency Medical Response, Type 3 ALS, 4-Wheel Drive	1	South Fire Station

**Table 4.2.2-3 List of Available Equipment for Use by the Installation Response Force (Continued)**

Equipment	Capability	Quantity <sup>a</sup>	Location <sup>b</sup>
FD Ambulance 2	Emergency Medical Response, Type 1 ALS, 2-Wheel Drive	1	North Fire Station
PIG Spill Kits	Spill Kits for Containing Small Spills		BLDGs 45, 46, 61, 62, 487, 491, 540, Area 241

Notes:

<sup>a</sup> This list represents equipment available to PCD personnel to conduct operations and respond to incidents and accidents. Limiting Conditions for Operations (LCOs) checklists are work-dependent and derived from this list; however, the quantities listed in this table are available equipment.

<sup>b</sup> Locations listed are the primary storage locations of the equipment. Due to normal daily operations some equipment may be utilized in other locations but will still be available for use by the Installation Response Force (IRF) if needed.

- cfm = cubic feet per minute
- cy = cubic yard
- gpm = gallons per minute
- HAZMAT = hazardous material
- PPE = personal protective equipment
- RTAP = Real-Time Analytical Platform

## **APPENDIX A**

### **Spill Report Forms**

Report 1: Oil or Hazardous Substance Spill Initial Report

Report 2: Pollution Incident Report

**OIL OR HAZARDOUS SUBSTANCE SPILL INITIAL REPORT**  
**(Page 1 of 2)**

Prepare this report in duplicate; retain copy and give original to the Installation On-Scene Coordinator.

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Person Reporting Spill: \_\_\_\_\_

Phone Number for Additional Information: \_\_\_\_\_

Location of Spill: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Type of Spill:  Oil             Gasoline             Chemical (Specify Below)

Pesticide     Other (Specify Below)     Unknown

Specify: \_\_\_\_\_

Size:  Small (less than 100 ft<sup>2</sup> contaminated)

Medium (less than 1 acre contaminated)

Large (more than 1 acre contaminated)

Cause or source of Spill: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



**Pollution Incident Report**  
**(Page 1 of 3)**

Name and Location of Installation: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name of Installation Commanding Officer: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Name of Installation On-Scene Coordinator: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Exact Date and Time of Incident or Exact Time of Discovery: \_\_\_\_\_

Location of Incident: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Cause or Source of Incident: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Type of Spill:  Oil             Gasoline             Chemical (Specify Below)

Pesticide     Other (Specify Below)     Unknown

Specify: \_\_\_\_\_

Specify the Size of Oil or Hazardous Substance Discharge:  Major    Size (ft<sup>2</sup>) \_\_\_\_\_

Medium    Size (ft<sup>2</sup>) \_\_\_\_\_

Minor    Size (ft<sup>2</sup>) \_\_\_\_\_

Specify Quantity of Substance Discharged:    Volume: \_\_\_\_\_

Weight: \_\_\_\_\_

**Pollution Incident Report**  
**(Page 2 of 3)**

Samples Collected:     Yes             No

If Yes, Identification Number: \_\_\_\_\_

Damage Assessment (fish, wildlife, underground water supplies, surface water): \_\_\_\_\_

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Potential Dangers (fire, explosion, toxic vapors, etc.): \_\_\_\_\_

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Assistance Required:    Yes             No

If Yes, identify assistance: \_\_\_\_\_

Remedial Action Taken:    Yes             No

If Yes, identify action: \_\_\_\_\_

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If No, estimate the date of completion: \_\_\_\_\_

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**Pollution Incident Report**  
**(Page 3 of 3)**

Disposal Information (pollutant, impacted debris or media, etc.): \_\_\_\_\_

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Anticipated or Actual Reaction by Media or Public to the Incident: \_\_\_\_\_

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Other Information: \_\_\_\_\_

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\* For help completing the report, contact the EMO at x4201 \*

## **APPENDIX B**

### Reportable Quantities

[Code of Federal Regulations]  
 [Title 40, Volume 18]  
 [Revised as of July 1, 2001]  
 From the U.S. Government Printing Office via GPO Access  
 [CITE: 40CFR117.3]

[Page 109-113]

TITLE 40--PROTECTION OF ENVIRONMENT

CHAPTER I--ENVIRONMENTAL PROTECTION  
 AGENCY (CONTINUED)

PART 117--DETERMINATION OF REPORTABLE QUANTITIES FOR HAZARDOUS SUBSTANCES--Tab

Subpart A--General Provisions

Sec. 117.3 Determination of reportable quantities.

Each substance in Table 117.3 that is listed in Table 302.4, 40 CFR part 302, is assigned the reportable quantity listed in Table 302.4 for that substance.

Table 117.3--Reportable Quantities of Hazardous Substances Designated Pursuant to Section 311 of the Clean Water Act

Note: The first number under the column headed "RQ" is the reportable quantity in pounds. The number in parentheses is the metric equivalent in kilograms. For convenience, the table contains a column headed "Category" which lists the code letters "X", "A", "B", "C", and "D" associated with reportable quantities of 1, 10, 100, 1000, and 5000 pounds, respectively.

Table 117.3--Reportable Quantities of Hazardous Substances Designated Pursuant to Section 311 of the Clean Water Act

Material	Category	RQ in pounds (kilograms)
Acetaldehyde.....	C.....	1,000 (454)
Acetic acid.....	D.....	5,000 (2,270)
Acetic anhydride.....	D.....	5,000 (2,270)
Acetone cyanohydrin.....	A.....	10 (4.54)
Acetyl bromide.....	D.....	5,000 (2,270)
Acetyl chloride.....	D.....	5,000 (2,270)
Acrolein.....	X.....	1 (0.454)
Acrylonitrile.....	B.....	100 (45.4)
Adipic acid.....	D.....	5,000 (2,270)
Aldrin.....	X.....	1 (0.454)
Allyl alcohol.....	B.....	100 (45.4)
Allyl chloride.....	C.....	1,000 (454)
Aluminum sulfate.....	D.....	5,000 (2,270)
Ammonia.....	B.....	100 (45.4)
Ammonium acetate.....	D.....	5,000 (2,270)
Ammonium benzoate.....	D.....	5,000 (2,270)
Ammonium bicarbonate.....	D.....	5,000 (2,270)
Ammonium bichromate.....	A.....	10 (4.54)
Ammonium bifluoride.....	B.....	100 (45.4)
Ammonium bisulfite.....	D.....	5,000 (2,270)
Ammonium carbamate.....	D.....	5,000 (2,270)

Ammonium carbonate..... D..... 5,000 (2,270)

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Ammonium chloride..... D..... 5,000 (2,270)  
Ammonium chromate..... A..... 10 (4.54)  
Ammonium citrate dibasic..... D..... 5,000 (2,270)  
Ammonium fluoborate..... D..... 5,000 (2,270)  
Ammonium fluoride..... B..... 100 (45.4)  
Ammonium hydroxide..... C..... 1,000 (454)  
Ammonium oxalate..... D..... 5,000 (2,270)  
Ammonium silicofluoride..... C..... 1,000 (454)  
Ammonium sulfamate..... D..... 5,000 (2,270)  
Ammonium sulfide..... B..... 100 (45.4)  
Ammonium sulfite..... D..... 5,000 (2,270)  
Ammonium tartrate..... D..... 5,000 (2,270)  
Ammonium thiocyanate..... D..... 5,000 (2,270)  
Amyl acetate..... D..... 5,000 (2,270)  
Aniline..... D..... 5,000 (2,270)  
Antimony pentachloride..... C..... 1,000 (454)  
Antimony potassium tartrate..... B..... 100 (45.4)  
Antimony tribromide..... C..... 1,000 (454)  
Antimony trichloride..... C..... 1,000 (454)  
Antimony trifluoride..... C..... 1,000 (454)  
Antimony trioxide..... C..... 1,000 (454)  
Arsenic disulfide..... X..... 1 (0.454)  
Arsenic pentoxide..... X..... 1 (0.454)  
Arsenic trichloride..... X..... 1 (0.454)  
Arsenic trioxide..... X..... 1 (0.454)  
Arsenic trisulfide..... X..... 1 (0.454)  
Barium cyanide..... A..... 10 (4.54)  
Benzene..... A..... 10 (4.54)  
Benzoic acid..... D..... 5,000 (2,270)  
Benzonitrile..... D..... 5,000 (2,270)  
Benzoyl chloride..... C..... 1,000 (454)  
Benzyl chloride..... B..... 100 (45.4)  
Beryllium chloride..... X..... 1 (0.454)  
Beryllium fluoride..... X..... 1 (0.454)  
Beryllium nitrate..... X..... 1 (0.454)  
Butyl acetate..... D..... 5,000 (2,270)  
Butylamine..... C..... 1,000 (454)  
n-Butyl phthalate..... A..... 10 (4.54)  
Butyric acid..... D..... 5,000 (2,270)  
Cadmium acetate..... A..... 10 (4.54)  
Cadmium bromide..... A..... 10 (4.54)  
Cadmium chloride..... A..... 10 (4.54)  
Calcium arsenate..... X..... 1 (0.454)  
Calcium arsenite..... X..... 1 (0.454)  
Calcium carbide..... A..... 10 (4.54)  
Calcium chromate..... A..... 10 (4.54)  
Calcium cyanide..... A..... 10 (4.54)  
Calcium dodecylbenzenesulfonate..... C..... 1,000 (454)  
Calcium hypochlorite..... A..... 10 (4.54)  
Captan..... A..... 10 (4.54)  
Carbaryl..... B..... 100 (45.4)  
Carbofuran..... A..... 10 (4.54)  
Carbon disulfide..... B..... 100 (45.4)  
Carbon tetrachloride..... A..... 10 (4.54)  
Chlordane..... X..... 1 (0.454)

Chlorine.....	A.....	10 (4.54)
Chlorobenzene.....	B.....	100 (45.4)
Chloroform.....	A.....	10 (4.54)
Chlorosulfonic acid.....	C.....	1,000 (454)
Chlorpyrifos.....	X.....	1 (0.454)
Chromic acetate.....	C.....	1,000 (454)
Chromic acid.....	A.....	10 (4.54)
Chromic sulfate.....	C.....	1,000 (454)
Chromous chloride.....	C.....	1,000 (454)
Cobaltous bromide.....	C.....	1,000 (454)
Cobaltous formate.....	C.....	1,000 (454)
Cobaltous sulfamate.....	C.....	1,000 (454)
Coumaphos.....	A.....	10 (4.54)
Cresol.....	B.....	100 (45.4)
Crotonaldehyde.....	B.....	100 (45.4)
Cupric acetate.....	B.....	100 (45.4)

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Cupric acetoarsenite.....	X.....	1 (0.454)
Cupric chloride.....	A.....	10 (4.54)
Cupric nitrate.....	B.....	100 (45.4)
Cupric oxalate.....	B.....	100 (45.4)
Cupric sulfate.....	A.....	10 (4.54)
Cupric sulfate, ammoniated.....	B.....	100 (45.4)
Cupric tartrate.....	B.....	100 (45.4)
Cyanogen chloride.....	A.....	10 (4.54)
Cyclohexane.....	C.....	1,000 (454)
2,4-D Acid.....	B.....	100 (45.4)
2,4-D Esters.....	B.....	100 (45.4)
DDT.....	X.....	1 (0.454)
Diazinon.....	X.....	1 (0.454)
Dicamba.....	C.....	1,000 (454)
Dichlobenil.....	B.....	100 (45.4)
Dichlone.....	X.....	1 (0.454)
Dichlorobenzene.....	B.....	100 (45.4)
Dichloropropane.....	C.....	1,000 (454)
Dichloropropene.....	B.....	100 (45.4)
Dichloropropene-Dichloropropane (mixture).....	B.....	100 (45.4)
2,2-Dichloropropionic acid.....	D.....	5,000 (2,270)
Dichlorvos.....	A.....	10 (4.54)
Dicofol.....	A.....	10 (4.54)
Dieldrin.....	X.....	1 (0.454)
Diethylamine.....	B.....	100 (45.4)
Dimethylamine.....	C.....	1,000 (454)
Dinitrobenzene (mixed).....	B.....	100 (45.4)
Dinitrophenol.....	A.....	10 (45.4)
Dinitrotoluene.....	A.....	10 (4.54)
Diquat.....	C.....	1,000 (454)
Disulfoton.....	X.....	1 (0.454)
Diuron.....	B.....	100 (45.4)
Dodecylbenzenesulfonic acid.....	C.....	1,000 (454)
Endosulfan.....	X.....	1 (0.454)
Endrin.....	X.....	1 (0.454)
Epichlorohydrin.....	B.....	100 (45.4)
Ethion.....	A.....	10 (4.54)
Ethylbenzene.....	C.....	1,000 (454)
Ethylenediamine.....	D.....	5,000 (2,270)

Ethylenediamine-tetraacetic acid (EDTA).....	D.....	5,000 (2,270)
Ethylene dibromide.....	X.....	1 (0.454)
Ethylene dichloride.....	B.....	100 (45.4)
Ferric ammonium citrate.....	C.....	1,000 (454)
Ferric ammonium oxalate.....	C.....	1,000 (454)
Ferric chloride.....	C.....	1,000 (454)
Ferric fluoride.....	B.....	100 (45.4)
Ferric nitrate.....	C.....	1,000 (454)
Ferric sulfate.....	C.....	1,000 (454)
Ferrous ammonium sulfate.....	C.....	1,000 (454)
Ferrous chloride.....	B.....	100 (45.4)
Ferrous sulfate.....	C.....	1,000 (454)
Formaldehyde.....	B.....	100 (45.4)
Formic acid.....	D.....	5,000 (2,270)
Fumaric acid.....	D.....	5,000 (2,270)
Furfural.....	D.....	5,000 (2,270)
Guthion.....	X.....	1 (0.454)
Heptachlor.....	X.....	1 (0.454)
Hexachlorocyclopentadiene.....	A.....	10 (4.54)
Hydrochloric acid.....	D.....	5,000 (2,270)
Hydrofluoric acid.....	B.....	100 (45.4)
Hydrogen cyanide.....	A.....	10 (4.54)
Hydrogen sulfide.....	B.....	100 (45.4)
Isoprene.....	B.....	100 (45.4)
Isopropanolamine dodecylbenzenesulfonate.....	C.....	1,000 (454)
Kepone.....	X.....	1 (0.454)
Lead acetate.....	A.....	10 (4.54)
Lead arsenate.....	X.....	1 (0.454)
Lead chloride.....	A.....	10 (4.54)
Lead fluoborate.....	A.....	10 (4.54)
Lead fluoride.....	A.....	10 (4.54)
Lead iodide.....	A.....	10 (4.54)

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Lead nitrate.....	A.....	10 (4.54)
Lead stearate.....	A.....	10 (4.54)
Lead sulfate.....	A.....	10 (4.54)
Lead sulfide.....	A.....	10 (4.54)
Lead thiocyanate.....	A.....	10 (4.54)
Lindane.....	X.....	1 (0.454)
Lithium chromate.....	A.....	10 (4.54)
Malathion.....	B.....	100 (45.4)
Maleic acid.....	D.....	5,000 (2,270)
Maleic anhydride.....	D.....	5,000 (2,270)
Mercaptodimethur.....	A.....	10 (4.54)
Mercuric cyanide.....	X.....	1 (0.454)
Mercuric nitrate.....	A.....	10 (4.54)
Mercuric sulfate.....	A.....	10 (4.54)
Mercuric thiocyanate.....	A.....	10 (4.54)
Mercurous nitrate.....	A.....	10 (4.54)
Methoxychlor.....	X.....	1 (0.454)
Methyl mercaptan.....	B.....	100 (45.4)
Methyl methacrylate.....	C.....	1,000 (454)
Methyl parathion.....	B.....	100 (45.4)
Mevinphos.....	A.....	10 (4.54)
Mexacarbate.....	C.....	1,000 (454)

Monoethylamine.....	B.....	100 (45.4)
Monomethylamine.....	B.....	100 (45.4)
Naled.....	A.....	10 (4.54)
Naphthalene.....	B.....	100 (45.4)
Naphthenic acid.....	B.....	100 (45.4)
Nickel ammonium sulfate.....	B.....	100 (45.4)
Nickel chloride.....	B.....	100 (45.4)
Nickel hydroxide.....	A.....	10 (4.54)
Nickel nitrate.....	B.....	100 (45.4)
Nickel sulfate.....	B.....	100 (45.4)
Nitric acid.....	C.....	1,000 (454)
Nitrobenzene.....	C.....	1,000 (454)
Nitrogen dioxide.....	A.....	10 (4.54)
Nitrophenol (mixed).....	B.....	100 (45.4)
Nitrotoluene.....	C.....	1,000 (454)
Paraformaldehyde.....	C.....	1,000 (454)
Parathion.....	A.....	10 (4.54)
Pentachlorophenol.....	A.....	10 (4.54)
Phenol.....	C.....	1,000 (454)
Phosgene.....	A.....	10 (4.54)
Phosphoric acid.....	D.....	5,000 (2,270)
Phosphorus.....	X.....	1 (0.454)
Phosphorus oxychloride.....	C.....	1,000 (454)
Phosphorus pentasulfide.....	B.....	100 (45.4)
Phosphorus trichloride.....	C.....	1,000 (454)
Polychlorinated biphenyls.....	X.....	1 (0.454)
Potassium arsenate.....	X.....	1 (0.454)
Potassium arsenite.....	X.....	1 (0.454)
Potassium bichromate.....	A.....	10 (4.54)
Potassium chromate.....	A.....	10 (4.54)
Potassium cyanide.....	A.....	10 (4.54)
Potassium hydroxide.....	C.....	1,000 (454)
Potassium permanganate.....	B.....	100 (45.4)
Propargite.....	A.....	10 (4.54)
Propionic acid.....	D.....	5,000 (2,270)
Propionic anhydride.....	D.....	5,000 (2,270)
Propylene oxide.....	B.....	100 (45.4)
Pyrethrins.....	X.....	1 (0.454)
Quinoline.....	D.....	5,000 (2,270)
Resorcinol.....	D.....	5,000 (2,270)
Selenium oxide.....	A.....	10 (4.54)
Silver nitrate.....	X.....	1 (0.454)
Sodium.....	A.....	10 (4.54)
Sodium arsenate.....	X.....	1 (0.454)
Sodium arsenite.....	X.....	1 (0.454)
Sodium bichromate.....	A.....	10 (4.54)
Sodium bifluoride.....	B.....	100 (45.4)
Sodium bisulfite.....	D.....	5,000 (2,270)
Sodium chromate.....	A.....	10 (4.54)

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Sodium cyanide.....	A.....	10 (4.54)
Sodium dodecylbenzenesulfonate..	C.....	1,000 (454)
Sodium fluoride.....	C.....	1,000 (454)
Sodium hydrosulfide.....	D.....	5,000 (2,270)
Sodium hydroxide.....	C.....	1,000 (454)
Sodium hypochlorite.....	B.....	100 (45.4)
Sodium methylate.....	C.....	1,000 (454)

Sodium nitrite.....	B.....	100 (45.4)
Sodium phosphate, dibasic.....	D.....	5,000 (2,270)
Sodium phosphate, tribasic.....	D.....	5,000 (2,270)
Sodium selenite.....	B.....	100 (45.4)
Strontium chromate.....	A.....	10 (4.54)
Strychnine.....	A.....	10 (4.54)
Styrene.....	C.....	1,000 (454)
Sulfuric acid.....	C.....	1,000 (454)
Sulfur monochloride.....	C.....	1,000 (454)
2,4,5-T acid.....	C.....	1,000 (454)
2,4,5-T amines.....	D.....	5,000 (2,270)
2,4,5-T esters.....	C.....	1,000 (454)
2,4,5-T salts.....	C.....	1,000 (454)
TDE.....	X.....	1 (0.454)
2,4,5-TP acid.....	B.....	100 (45.4)
2,4,5-TP acid esters.....	B.....	100 (45.4)
Tetraethyl lead.....	A.....	10 (4.54)
Tetraethyl pyrophosphate.....	A.....	10 (4.54)
Thallium sulfate.....	B.....	100 (45.4)
Toluene.....	C.....	1,000 (454)
Toxaphene.....	X.....	1 (0.454)
Trichlorfon.....	B.....	100 (45.4)
Trichloroethylene.....	B.....	100 (45.4)
Trichlorophenol.....	A.....	10 (4.54)
Triethanolamine dodecylbenzenesulfonate.	C.....	1,000 (454)
Triethylamine.....	D.....	5,000 (2,270)
Trimethylamine.....	B.....	100 (45.4)
Uranyl acetate.....	B.....	100 (45.4)
Uranyl nitrate.....	B.....	100 (45.4)
Vanadium pentoxide.....	C.....	1,000 (454)
Vanadyl sulfate.....	C.....	1,000 (454)
Vinyl acetate.....	D.....	5,000 (2,270)
Vinylidene chloride.....	B.....	100 (45.4)
Xylene (mixed).....	B.....	100 (45.4)
Xylenol.....	C.....	1,000 (454)
Zinc acetate.....	C.....	1,000 (454)
Zinc ammonium chloride.....	C.....	1,000 (454)
Zinc borate.....	C.....	1,000 (454)
Zinc bromide.....	C.....	1,000 (454)
Zinc carbonate.....	C.....	1,000 (454)
Zinc chloride.....	C.....	1,000 (454)
Zinc cyanide.....	A.....	10 (4.54)
Zinc fluoride.....	C.....	1,000 (454)
Zinc formate.....	C.....	1,000 (454)
Zinc hydrosulfite.....	C.....	1,000 (454)
Zinc nitrate.....	C.....	1,000 (454)
Zinc phenolsulfonate.....	D.....	5,000 (2,270)
Zinc phosphide.....	B.....	100 (45.4)
Zinc silicofluoride.....	D.....	5,000 (2,270)
Zinc sulfate.....	C.....	1,000 (454)
Zirconium nitrate.....	D.....	5,000 (2,270)
Zirconium potassium fluoride.....	C.....	1,000 (454)
Zirconium sulfate.....	D.....	5,000 (2,270)
Zirconium tetrachloride.....	D.....	5,000 (2,270)

[50 FR 13513, Apr. 4, 1985, as amended at 51 FR 34547, Sept. 29, 1986;  
54 FR 33482, Aug. 14, 1989; 58 FR 35327, June 30, 1993; 60 FR 30937,

June 12, 1995]

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**APPENDIX 4-4**  
**PCD CHEMICAL ACCIDENT/INCIDENT RESPONSE AND**  
**ASSISTANCE (CAIRA) PLAN**



# **PUEBLO CHEMICAL DEPOT CHEMICAL ACCIDENT/INCIDENT RESPONSE AND ASSISTANCE PLAN, REVISION 5 (PCD - CAIRAP)**



**August 2014**

DEPARTMENT OF THE ARMY  
PUEBLO CHEMICAL DEPOT  
45825 Highway 96 East  
Pueblo, Colorado 81006-9330

CAIRAP  
REVISION 5

**PUEBLO CHEMICAL DEPOT CHEMICAL ACCIDENT/INCIDENT RESPONSE AND  
ASSISTANCE PLAN  
(PCD - CAIRAP)**

The PCD - CAIRAP has been updated to reflect changes made in response to a variety of comments received during Surety Management Review and annual Staff review. This plan supersedes the PCD CAIRAP dated September 2013.



DEPARTMENT OF THE ARMY  
US ARMY CHEMICAL MATERIALS ACTIVITY  
PUEBLO CHEMICAL DEPOT, BUILDING 1  
45825 HIGHWAY 96 EAST  
PUEBLO, COLORADO 81006-9330

AUG 19 2014

CMPC-CO

## MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Pueblo Chemical Depot Chemical Accident/Incident Response and Assistance Plan (PCD-CAIRAP)

1. The enclosed plan serves as Annex B to the PCD Installation Emergency Management Plan (PCD-IEMP) and takes into consideration the training requirements of Army Regulation (AR) 525-27. This plan supersedes the PCD Chemical Accident/Incident Response and Assistance Plan dated September 2013.
2. All Division, Branch, Office Chiefs, and other personnel concerned with planning or specific actions used to execute this plan, will immediately review and implement them as necessary. This plan is the overarching installation plan for CAIRA; affected tenants and contractors will develop supporting plans and procedures where appropriate.
3. The Commander, Pueblo Chemical Depot (PCD) shall be the Initial Response Force Commander and federal On-Scene Coordinator for all releases of toxic chemical agents on PCD, regardless of who has custody of the agent (e.g., contractors or tenants).
4. This plan is a living document and will be under continuous review by its users. All changes affecting the execution of this plan will be identified and forwarded to the PCD Operations Division, the proponent for this plan.

Enclosure

  
MICHAEL S. QUINN  
ETC, CM  
Commanding

DISTRIBUTION:  
Annex Y

**CHEMICAL ACCIDENT/INCIDENT RESPONSE AND ASSISTANCE PLAN  
(PCD - CAIRAP)**

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## SUMMARY OF CHANGE

### CHEMICAL ACCIDENT/INCIDENT RESPONSE AND ASSISTANCE PLAN (PCD - CAIRAP)

#### Revision 1, 04 Mar 10

- Is a complete revision
  - Incorporates comments received during the Surety Management Review and annual Staff review.
  - Supersedes CAIRAP Change 1, dated 13 February 2008.

#### Revision 2, 31 Oct 11

- Is a complete revision
  - Supersedes CAIRAP Revision 1, dated 10 March 2010.
  - Adds detailed organizational structure and responsibilities for a Planning Section, Logistics Section, and Finance & Administrative Section.
  - Removes and transfers to the Installation Emergency Management Plan the following:
    - Annex C – Notification Procedures
    - Annex D – Fire and Rescue Support
    - Annex F – Evacuation Procedures
    - Annex G – Information Systems Support
    - Annex I – Medical Support
    - Annex K – Public Affairs
    - Annex M – Legal
  - Added Annex for PCAPP CAI Response

#### Revision 3, 5 Jun 12

- Is a complete revision
  - Supersedes CAIRAP Revision 2, dated 31 October 2011.
  - Incorporated comments received during the Surety Management Review and annual Staff review.

#### Revision 4,

- Is a complete revision
  - Supersedes CAIRAP Revision 3, dated 3 July 2012.
  - Removes all references to DA Pam 50-6 and references to the Service Response Force (SRF)

#### Revision 5,

- Adds PCAPP EDS operational responsibilities
- Initial Response Force Commander changed to Installation Response Force Commander

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## OVERVIEW

The Pueblo Chemical Depot (PCD) Chemical Accident/Incident Response and Assistance (CAIRA) Plan (CAIRAP) is a standalone plan. The proponent is the PCD Plans, Operations and Training Division (POTD), which will subject the plan to an annual review. For any accidents or incidents that do not involve toxic chemical agents, the PCD Installation Emergency Management Plan and/or the Installation Spill Contingency Plan (ISCP) and the Spill Prevention, Control, and Countermeasures Plan (SPCCP) will be the governing document(s).

The PCD Commander serves as the Installation Response Force (IRF) Commander (IRFC) as described in Department of the Army (DA), the federal On-Scene Coordinator (OSC) as described in 40 CFR 300 (the National Oil And Hazardous Substances Pollution Contingency Plan, aka National Contingency Plan (NCP)), and the Incident Commander (IC) as described in the National Response Framework (NRF) and the National Incident Management System (NIMS) from the onset of a Chemical Accident/Incident (CAI) until removal operations are completed and remedial action activities (if any) are turned over to a Remedial Project Manager (RPM) or until relieved of OSC duties. .

CAIRA response at a CAI response site is a military operation under command of the IRFC/OSC/IC. The majority of CAIRA operations occurs inside the installation boundaries and includes both the removal of the chemical (and other) hazards and the emergency support to populations within the installation's boundaries. CAIRA operations that occur within the installation boundaries are governed by Army doctrine and regulations, and are managed within the chain of military command and control. (Blending of Army guidance and the Incident Command System (ICS) will result in a unique command structure that will meet the intent of the NRF). This plan is tailored to meet the specific organizational needs of PCD in consideration of personnel and resources available.

The PCD CAIRA Plan is designed to avoid details that might undergo frequent changes, or that are variable or perishable, e.g., telephone numbers, office symbols, equipment listings. This kind of information will be published separately.

PCD conducts CAIRA operations in accordance with (IAW) the NCP, the NRF, and AR 50-6. Operations are conducted in three basic phases: (1) readiness phase, (2) response phase, and (3) recovery phase.

Six words that begin with the letter "R" and are used frequently in CAIRA plans are "response", "re-entry", "removal", "remedy" (aka "remedial action" or "remediation"), "recovery", and "restoration". These terms are used not only in Army guidance but also in other federal emergency planning documents. "Removal" and "remedy"/"remedial action" are precisely defined in the NCP and their meanings are set and agreed-upon. The other four terms are not used with consistency or precision throughout Army guidance and other federal guidelines. This can create confusion. Therefore, for the purposes of this plan, in order to achieve clarity and consistency as well as efficiency, the following will apply:

- “Removal” and “remedy” (aka “remedial action” and “remediation”) will be defined as in the NCP.
- “Response” will apply to efforts to react to an accident or incident in order to find hazards and mitigate/eliminate their threats to workers and the public – noting that such a goal is not achieved until all hazards have indeed been located and removed.
- “Re-entry” in this plan applies to gaining access to an accident site for the purpose of moving involved munitions to another storage site.
- “Recovery” means to return to the condition that existed before the accident or incident.
- “Restoration” is very closely related to “recovery” and means a return to a former, original, normal, or unimpaired condition (e.g., restoration of interrupted services or of damaged buildings, equipment, or other infrastructure).

Despite these differences and nuances in meaning, again in order to achieve clarity and consistency as well as efficiency, this plan will link “removal” with “response”, and link “remedial actions” with “recovery” and “restoration”, in so far as practicable.

During the readiness phase, PCD plans CAIRA response operations and integrates Chemical Stockpile Emergency Preparedness Program (CSEPP) initiatives. The PCD Commander ensures personnel are identified and trained to meet the requirements set forth in this plan. PCD emergency responders, command staff and the installation emergency manager will be trained IAW the training requirements of AR 525-27 as soon after appointment as practical (and before appointment, if possible). Immediate supervisors will be responsible for ensuring that responders under their control meet specific certification and credentialing requirements (as applicable). PCD conducts training exercises to test system response, identify weaknesses in plans or training, evaluate new ideas and equipment, and improve the capability of PCD to respond to an actual CAI.

The PCD Operations Center (OC) supports daily operations by identifying the predicted downwind hazards associated with each day’s operations, and ensuring those downwind hazard predictions and forecasted weather are coordinated with Pueblo County Emergency Operations Center (EOC) and the Colorado Division of Emergency Management. Before chemical operations begin, the following activities occur:

- Checks of critical communications and decontamination and detection equipment are completed prior to the start of any operations involving toxic chemical munitions.
- Critical CAIRA Team Members are identified by name and staffing at the Occupational Health Clinic and verified to meet minimum requirements.
- Operations to be conducted are identified.
- Downwind hazard distances for planning operations and determining whether operations may proceed are generated by approved hazard prediction software and techniques.
- Meteorological data and forecasts are evaluated to determine the Operation Control Point (OCP) and emergency response and evacuation routes to be used in the event of a CAI.
- The Daily Work Plan, Downwind Hazard Area Plot, and Protective Action Recommendations (PAR) are completed and broadcast to the off-post community.

The identification, or notification, of an actual or suspected CAI initiates a CAIRA operation (beginning the response phase). The OC Staff notifies the PCD Commander, who then immediately assumes the role of IRFC. Immediate actions are taken to gather information and perform reconnaissance (if necessary). Once a CAI is identified, urgent action will take place to save lives, preserve health and safety, protect the environment, secure chemical surety material, protect property, and promote public confidence.

The OC Staff recommends protective actions for both the on- and off-post communities to the IRFC. Upon approval by the IRFC, the PAR is provided to the Pueblo County EOC, and protective action decisions (PAD) are implemented within the PCD boundaries. (Note: OC Operators may issue PARs and PADs if the IRFC is not immediately available.) Specific actions at the CAI scene are highly dependent on the precise nature of the CAI. The ability to conduct operations in a toxic environment at the accident scene may be limited by several factors, to include availability of qualified personnel and/or equipment and the weather. The OC staff monitors and records all actions taken in response to a CAI (to include CAI response telephone conversation in the OC).

The IRFC will request augmentation as he/she deems necessary. The IRFC, acting as the OSC, directs response efforts and coordinates all other efforts at the scene of the discharge or release.

The recovery phase commences with the start of operations to restore conditions at or near the CAI site. It may be difficult, or even impossible, to distinguish between the response and recovery phases. Restoration operations must be approved by both DA and the United States Environmental Protection Agency (EPA). Should the DA and EPA not agree, the EPA has final authority.

During the recovery phase, the IRF Commander will stand-down their response elements once they are no longer required.

As it is considered extremely improbable that a National Defense Area (NDA) would be needed following a CAI at PCD, the establishment of an NDA is not addressed in this plan.

# **BASE PLAN**

## OPERATION PLAN – Pueblo Chemical Depot (PCD) CHEMICAL ACCIDENT/INCIDENT RESPONSE AND ASSISTANCE PLAN (CAIRAP)

References: Annex X (References).

Time Zone Used Throughout the Plan: Local Mountain Time (Mountain Standard Time or Mountain Daylight Time).

Task Organization:

### 1. SITUATION

PCD is a toxic chemical agent and munitions storage facility that stores sulfur mustard (HD and HT) agent, configured in 4.2” mortars, 105mm and 155mm projectiles and DOT bottles. As a result of natural forces, civil disturbances, a major accident or incident, or enemy action, a chemical event may occur at any time. This plan provides PCD policy, direction, and procedural guidance for preparing for, and responding to, a chemical event at PCD. It will be implemented at the direction of the PCD Commander or authorized representative. The site also includes PCAPP EDS which will destroy over packed, leaking and rejected munitions form the PCAPP facility.

**a. Enemy Forces.** (Intelligence). See Annex A to the PCD Physical Security Plan and Appendix B to the PCD Antiterrorism/Force Protection Plan (AT/FP Plan).

**b. Friendly Forces.**

(1) Department of Defense (DOD). The DOD executes lead agency responsibilities for response to a chemical release at installations under its jurisdiction

(2) Headquarters, Department of the Army (HQDA). HQDA coordinates support from other military services and DOD agencies for assistance in controlling and minimizing the effects of a Chemical Accident / Incident (CAI). The Army Operations Center (AOC) serves as the CAI operations and information center for HQDA.

(3) Defense Intelligence Agency (DIA). The DIA provides intelligence support; i.e., identification of potential terrorists, to the Commander.

(4) US Army Forces Command (FORSCOM). FORSCOM provides contingency military support to PCD as required in the form of Explosive Ordnance Disposal (EOD) units, Augmentation Forces, and other support capabilities.

(5) US Army Materiel Command (AMC). AMC provides emergency support, required for accomplishing the mission.

(6) US Army Intelligence and Security Command (INSCOM). INSCOM provides counterintelligence support to the Commander.

(7) US Army Information System Command (USAISC). The USAISC assists the installation in management and planning information systems to support CAIRA operations.

(8) US Army Medical Command (MEDCOM). MEDCOM provides medical training for emergency medical teams and Disaster Assistance Response Teams (DART).

**(9)** US Army Chemical Materials Activity (CMA). CMA is responsible for the safe storage of the nation's chemical weapon materials pending their ultimate destruction. The agency also partners with the Federal Emergency Management Agency (FEMA) to ensure the emergency preparedness of the communities surrounding the depots where stockpiled chemical weapons are stored.

**(10)** State and County Emergency Management Agency (EMA)—Pueblo County Emergency Management. Pueblo County EMA prepares, coordinates, and executes contingency plans in affected population sectors.

**(11)** National Response Center (NRC). The NRC is the communication center of the National Response Team. The NRC serves four related functions - makes an official record of release, alerts key Federal authorities, provides the On-Scene Coordinator (OSC) with informational support if requested, and coordinates request from the OSC and/or the Regional Response Team (RRT) for assistance.

**(12)** National Response Team (NRT). The NRT is the primary vehicle for coordinating Federal Agency Activity under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The NRT carries out national planning and response coordination for oil and hazardous materials incidents.

**(13)** Regional Response Team (RRT). The RRT develops regional contingency plans, coordinates participating activities supporting the Installation Response Force (IRF) Commander. The RRT provides advice and/or support, which may consist of materiel, information or expertise at the request of the IRF Commander, who is the OSC. RRTs are composed of regional representatives of the Federal Agencies on the NRT, as well as, representatives from each State in the region.

**(14)** Federal Emergency Management Agency (FEMA). FEMA will provide advice and assistance to the IRF Commander / OSC on coordinating civil emergency planning and mitigation efforts with other executive agencies, State and local governments, and the private sector.

**(15)** Environmental Protection Agency (EPA). The EPA provides expertise on environmental effects of releases of hazardous substances, pollutants, or contaminants and environmental pollution control techniques.

**(16)** Department of Health and Human Services (HHS). Provides expertise on Human health and safety through the Centers for Disease Control (CDC), the Center for Environmental Health and Injury Control, and on safety of food and dairy products through the Food and Drug Administration.

**c. Attachments and Detachments.** Occupational Health Clinic (OHC), Evans Army Community Hospital (EACH), U.S. Army MEDDAC, Fort Carson.

**d. Assumptions.**

(1) A CAI will occur with little or no warning. The IRF Commander, Incident Commander (IC), or OC Operations Officer or designated representative will implement the CAIRA plan and activate the PCD Operations Center.

(2) Normal PCD **and PCAPP EDS** operations will cease to respond to a CAI.

(3) The IRFC/OSC, or designated representative, will implement the CAIRA Plan and activate the PCD OC.

(4) The IRF Commander or designated representative will make initial notification to the National Response Center (NRC) immediately upon release of the Reportable Quantity (RQ).

(5) The IRFC, or designated representative, will make initial notification to the Army Operations Center (AOC), U.S. Army Chemical Materials Activity (CMA), Army Materiel Command (AMC), and local and state authorities IAW published regulations, policy guidance and negotiated agreements.

**2. PURPOSE.**

In response to a CAI on Pueblo Chemical Depot, the Installation Commander as the Installation Response Force Commander (IRFC) will direct and coordinate all forces and operations to minimize loss of life and/or personal injury; protect the environment; protect Government equipment; safeguard property; minimize the effects or damage; recover from damage caused by overt or covert enemy actions, natural forces, or accidental events; secure, recover, and safeguard any classified material; minimize negative public reactions through a public affairs/information program; expeditiously satisfy public claims when required; and restore the accident/incident site to a useable, safe state commensurate with all local, state and federal standards.

**3. EXECUTION**

**INTENT.** In order to successfully complete the CAIRA mission, PCD must accomplish these key tasks:

- Protect workforce, community and environment.
- Mitigate all chemical hazards.
- Communicate with all stakeholders and the media.
- Provide assistance to the local community.

**END STATE:**

- PCD has decontaminated all chemical hazards, and the workforce has returned to normal storage operations.

**a. Concept of Operation.**

**(1)** Initiation of the CAIRA Plan. Anyone on Depot having knowledge of a CAI, and not knowing that a report has been made, should immediately don their protective mask and give the vocal alarm "GAS! GAS! GAS!" Automatically report the CAI to the OC in Bldg 2, phone number 4211. When making notification, the report will include a detailed description of the situation, to include the type of CAI, chemical agent and munitions, involved number of casualties, and location.

**(2)** Limit of Effects. If the effects of the CAI are limited to the confines of PCD, response operations will be totally under control of the Depot authorities with assistance from civilian emergency response agencies per existing agreements, as required. Should the effects cross over into the surrounding community; the response will involve the coordinated use of military response forces in conjunction with civilian emergency agencies. In either case, PCD will execute a variety of actions, such as assessment, notification, casualty care, safeguarding of CSM and minimization and mitigation of hazards. The IRF will also assist civilian emergency agencies with off-post environmental monitoring within its capabilities.

**(3)** Participants in this plan are authorized to take immediate, necessary actions to respond to actual emergencies that may occur during exercises or testing of this plan.

**(4)** The Commander or his/her representative may waive requirements published in AR 50-6, AR 385-10 or AR 190-59 for short periods of time in order to save lives, prevent personal injury, secure government assets, protect property, and/or protect the environment.

**(5)** Upon implementation of this plan, personnel and equipment resources required to react to a CAI will have priority over all other operational requirements.

**(6)** The following actions should happen automatically:

**(a)** The crew present at the CAI site immediately begins first aid/buddy aid. The first priority is always to save lives. Personnel are decontaminated at the mini-hotline which is set up prior to operations. Once the crew has processed through the mini-hotline, they move 450 meters upwind and await determination of the hotline location. The On Scene Incident Commander (OSIC) determines the running route and the location of the hotline.

**(b)** The OC becomes fully staffed upon notification of an accident or incident. All personnel assigned OC CAIRA duties will report immediately to the OC to provide technical guidance and support to the OC Operations Officer; the Operations, Planning and Finance Section Chiefs; and the IRFC.

**(c)** The PCD OC notifies the off-post community via the Pueblo Emergency Notification Hotline telephone.

**(d)** Security forces respond to provide security and to assist personnel at/near the CAI site and also provide security at the PCD OC.

**(e)** The Medical Response Team (MRT) activates immediately.

**(f)** The PCD Fire Department responds immediately and sets up the hotline.

**(g)** Assigned emergency response teams respond to designated assembly points.

**b. Readiness Phase.** During the readiness phase, PCD staff will prepare and coordinate appropriate response plans and procedures. Organizations will be established to train personnel and response teams to the required level of proficiency, evaluate PCD's ability to execute plans, and educate the public to the potential threat, including emergency response procedures.

**(1) PCD Commander will:**

(a) Appoint qualified personnel to implement the provisions of this plan and delegate the responsibilities and authorities needed to ensure an effective IRF. Ensure those appointed are continually trained and medically cleared to support and gain control over chemical events if they occur.

(b) Develop and maintain an effective CAIRA Plan coordinated with appropriate state and local government authorities.

(c) Ensure manpower, equipment, vehicles and material resources are sufficient to expeditiously contain, remove, and dispose of any hazardous substance(s) discharged in the course of a chemical event or response.

(d) Ensure implementation of an IRF training program, to include rehearsal of this plan by depot-wide exercises on a quarterly basis IAW AR 50-6. At least two exercises during the year will be coordinated with state and local authorities and other emergency response agencies to evaluate emergency response capabilities and coordination. The annual CSEPP exercise also contributes to accomplishment of the exercise requirements of AR 525-27.

(e) Ensure he/she, PCD emergency responders, command staff, and the installation emergency manager are trained, as appropriate, IAW the training requirements of AR 525-27 as soon after appointment as practicable (and before appointment, if possible).

**(2) All Directorate, Division and Office Chiefs will:**

(a) Ensure the continuous safety, security and reliability of chemical munitions and agents, thus minimizing the possibility of a chemical event.

(b) Ensure all assigned emergency response teams are well organized and personnel are continually trained and medically cleared to support and gain control over CAIs, should they occur.

(c) Ensure sufficient stocks of supplies (e.g., decontaminants), materials, equipment (e.g., protective clothing and vehicles) required for assigned emergency response as outlined in this plan and in supporting procedures, are readily available. Ensure the supplies, materials, and equipment are maintained, tested, logged and operated IAW current directives.

(d) Perform spot inspections of equipment, supplies and response procedures, and participate in exercises to ensure procedures are current, training is adequate, equipment and supplies are sufficient in quantity and serviceability, and required corrective actions are taken.

**(3) Plans, Operations and Training Division:**

(a) Develop and maintain integrated emergency response plans among Pueblo County, State of Colorado, and PCD that detail the actions and responsibilities of each entity in the event of a CAI that could affect the local community.

(b) Equip, operate and maintain a 24-hour OC that is linked with the Pueblo County and Colorado State EOCs.

(c) Determine actual communication assets available for use in a chemical event, identify shortfalls from the minimum required assets, and determine possible sources to obtain required assets. Notify the PCD Commander of any unresolvable shortfalls.

(d) Ensure that all OC Hazard Analysts are trained and well-practiced in the current version of the approved downwind hazard prediction software.

(e) Coordinate erecting signs and marking roadways on PCD to indicate evacuation routes.

(f) Coordinate with Security, Chemical Operations Division, and the PCD Fire Department at a minimum to establish, and update as necessary, predesignated zones for evacuation execution. These zones will be shown on the Evacuation Maps described in Annex F.

**(4) Security and Law Enforcement Division will:**

(a) Ensure that Post 5 - the SSCC, has the capability to receive Essential Elements of Information (EEI) from a CAI site and to activate the PCD on-post 911 system phones to notify personnel immediately.

(b) Establish, equip and train security emergency teams IAW the requirements outlined in AR 190-59.

**(5) Chemical Operations Division will:**

(a) Stock and operate the change houses, and buildings 492 and 475.

(b) Ensure that decontaminants are serviceable and in sufficient quantities to respond to, and gain control over, a CAI. Perform periodic testing of decontaminants IAW Standing Operating Procedure (SOP) PU-0000-W-465. Ensure that absorbent materials are serviceable and in sufficient quantities to respond to and gain control over a chemical spill.

(c) Ensure CAI response personnel are trained to the appropriate levels for hazardous materials operations IAW 29 CFR 1910.120, in addition to applicable Army requirements.

**(6) Public Affairs Office will:**

(a) Develop and provide a command information program that obtains and sustains the confidence of the personnel who work or live on the installation or visit the installation for an appreciable time.

(b) Design and provide a community relations program that ensures understanding of installation operations in order to build public confidence in the depot's ability to respond to a CAI. This should enhance the news media's and the public's understanding of chemical agent hazards for more effective response to events.

(c) Establish a news media relations program that ensures news media representatives understand the ramifications surrounding a chemical hazard in order to enhance the media's responsibility and ability in preventing misinformation.

(d) Establish and train a Joint Information Center (JIC)/Joint Information System (JIS) team.

**(7) Fire Department will:**

(a) Ensure CAI FES response personnel are trained to the appropriate levels for hazardous materials operations IAW 29 CFR 1910.120 and appropriate National Fire Protection Association Standards, in addition to applicable Army requirements.

**c. Response Phase.**

Concept. Upon notification of a CAI, all assigned personnel will report immediately to their CAIRA duty stations. The IRF will take actions to gain control of the CAI to include saving lives, preserving health and safety, containing and rendering safe hazardous materials, protecting the environment, securing chemical surety material (CSM), protecting and securing property, and promoting public confidence in the Army's ability to conduct emergency response operations.

Functions. Local off-post civilian authorities will decide and implement appropriate protective decisions for the off-post population. The IRFC will make PADs for the on-post areas, but will make PARs only to local authorities for off-post jurisdictions. Notification will be made to local off-post authorities in the event of evacuation of PCD employees, contractors, residents and tenants. The PCD OC will maintain communications with local off-post authorities to obtain feedback regarding the off-post PADs. The Off-Post Liaison Officer will obtain information about off-post traffic control to determine routes for augmentation of the IRF. The Off-Post Liaison Officer will obtain information for the IRFC about the overall impact the chemical event is having off-post. The IRFC must know what actions are being taken by off-post officials in order to perform his duties as the OSC. The PADs established by the officials involve critical elements of information needed by the OSC to plan for federal assistance, i.e., how many were sheltered, where were they sheltered, for how long, how many were evacuated, from where to where, their current status, etc. .

**(1) IRF Commander will:**

(a) Approve any necessary deviations from this plan and/or any other published requirement if emergency conditions at the chemical event location warrant special consideration to save lives, prevent personal injury, secure Government assets, protect property and protect the environment.

(b) Conduct a hazard analysis of the chemical event and ensure the appropriate chemical event emergency notification level is assigned..

(c) Take immediate actions to minimize the hazard.

(d) Maintain close working relationships with supporting federal, state and local authorities before, during and after a chemical event occurs.

(e) Serve as the OSC, until relieved by another qualified OSC.

(f) Determine and initiate protective actions for on-post personnel and recommend protective actions for off-post personnel.

(g) Ensure compliance with existing environmental laws and regulations.

(h) Ensure telephonic and written notifications to the AOC, AMC Operations Center and CMA Operations Center are made IAW policies and procedures.

- (i) Serve as primary point of contact for off-post officials.
  - (j) Approve all reports to higher headquarters and information releases to the general public.
  - (k) Ensure all actions taken are documented in an administrative record in sufficient detail to reconstruct all actions and provide supporting justification for the decisions made, especially deviations from existing regulations and requirements.
  - (l) Ascertain whether support from CMA is needed and request support if it is warranted.
  - (m) Notify and advise other federal agencies.
  - (n) Besides conducting any internal investigations of events, accommodate and support any investigation teams that are required to visit the installation following a CAI.
  - (o) Determine the need for a Chaplains Crisis Response Team. If Chaplain support is needed, the IRFC will request, through channels, deployment of the Chaplains Crisis Response Team from HQ AMC.
  - (p) Serve as the Incident Commander (IC) under NIMS/ICS.
  - (q) Provide periodic personal briefings on the status of the CAI to the Director, CMA.
  - (r) Complete tasks in the Commander OC Checklist.
  - (s) Utilize the PCD Commander Significant Information Brochure, as desired, to record information as an aid to tracking events and conferring with higher headquarters.
- (2) All PCD Employees, Tenants and Contractors will:**
- (a) In the event of discovery of a CAI, contact the nearest Security Guard or the Operations Center, and report all essential elements of information available.
  - (b) Maintain radio and telephone silence except to disseminate evacuation instructions, all clear orders or other critical emergency messages.
  - (c) Follow instructions regarding evacuation, vehicle movement, roadblocks or other matters critical to the response and safety of personnel.
  - (d) Report to assigned emergency response duty station locations according to the most recent PCD Memorandum, Emergency Response Duties.
- (3) The Operations Section** will activate and operate under the Operations Section Chief. The Operations Center Operations Officer and the On Scene Incident Commander will both report directly to the Operations Section Chief.
- (4) The Planning Section** will organize and operate under the Planning Section Chief. The exact representation of the Planning Section will be determined when the particulars of the event become known. The Planning Section is responsible for developing and issuing Incident Action Plans (IAP) that are revised and updated on a not-less-than daily basis until the completion of removal operations. (This CAIRA Plan serves as the initial IAP.) The Planning Section is also responsible for acquiring and archiving all CAI-related documentation (to include records of all key decisions), as required by the NCP.

**(5) The Logistics Section** will activate and operate under the Logistics Section Chief. The Logistics Section is responsible for providing all the logistics needs for removal operations.

**(6) The Finance Section** organizes and operates under the Resource Management Chief. The Finance Section is responsible for tracking all costs associated with a major CAI operation. This section will activate only upon the specific request of the IRFC/OSC/IC.

**d. Recovery Phase.**

Concept. During the recovery phase, PCD staff will initiate action to restore conditions at, and in the vicinity of, the CAI site to a technically feasible and acceptable state, ideally with unrestricted use. This phase will include the initiation of remedial actions, if any are required; and, in coordination with other federal, state and local agencies, the conduct and analysis of follow-on assessment activities to support off-post authority decision making regarding unrestricted return to homes and businesses and long-term protective or monitoring actions.

Functions. Operational command of Army forces or elements will remain under the appropriate Army Commander throughout recovery operations. Long-term protective actions will be identified, coordinated, and implemented. The IRF Commander must continue to assist in protecting the public from chemical and any other hazards or damage generated by the chemical event and the response to it and returning the area to an environmentally acceptable condition. As operational conditions permit, nonessential protective measures will be terminated.

**e. After-action requirements.** At some point after the emergency has been brought under control, the IRFC and staff must objectively evaluate the facts and circumstances leading to the CAI and the resultant response effort. The purpose is to determine how to avoid similar accidents, determine whether this CAIRA Plan should be amended, and decide what follow-up military and public training programs are needed. Information can be gathered from personnel who were involved in and/or responded to the CAI either individually or in groups (e.g., hot washes). All information should be carefully documented and archived for other after action report and investigatory use.

**f. Deactivation.** Deactivation of the CAIRA Plan will be directed by the IRF Commander. Partial deactivation of the plan may be directed prior to the decontamination of all land, buildings, or vehicles; provided the immediate area around the CAI scene is decontaminated and all leaking munitions/containers are adequately contained. The OC, Hot Line and the Contamination Reduction Area will be deactivated on order of the IRF Commander. The monitoring teams will be deactivated by the Operations Section Chief.

**4. COMMAND AND SIGNAL**

**a.** The PCD Commander is responsible for the implementation of this plan in the event of a chemical accident/incident. To accomplish CAIRA Plan goals, the PCD Chief, POTD will make emergency response team assignments (by name) during the readiness phase and develop a roster (after conducting appropriate coordination with applicable supervisors) and verify that assigned personnel are appropriately trained. The Chief, Plans and Operations will also ensure that the roster is kept up-to-date on a continual basis.

**b.** The command element consists of the IRFC (or designated representative) and an advisory staff to ensure the depot complies with this plan and that interests of PCD, CMA, AMC and DA are appropriately safe-guarded during chemical event operations.

c. The CAIRA organization includes the Operations, Planning, Logistics, and Finance Section Chiefs; the OSIC (see Annex D); the security response force; fire fighters; medical personnel; monitoring coordinator; detection/decontamination and Personnel Decontamination Station (PDS) teams; support personnel; and others as are assigned in organization charts, this plan, and supporting standing operating procedures (SOPs).

ACKNOWLEDGE:

MICHAEL S. QUINN  
LTC, CM  
Commanding

ANNEXES:

Annex A Task Organization  
Annex B Intelligence  
Annex C Notification Procedures – *trfd to IEMP*  
Annex D Fire and Rescue Support – *trfd to IEMP*  
Annex E OC Operations  
Annex F Evacuation Procedures – *trfd to IEMP*  
Annex G Information System Support – *trfd to IEMP*  
Annex H Security  
Annex I Medical Support – *trfd to IEMP*  
Annex J Agent and Munitions Operations  
Annex K Public Affairs – *trfd to IEMP*  
Annex L Logistics Support  
Annex M Legal – *trfd to IEMP*  
Annex N Monitoring  
Annex O Meteorology  
Annex P Contamination Control  
Annex Q Removal Operations  
Annex R Remedial Operations  
Annex S CAIRA Exercises  
Annex T Federal On-Scene Coordinator  
Annex U CMA Support and Transition  
Annex V PCAPP CAI  
Annex W Definitions  
Annex X References  
Annex Y Distribution  
Annex Z Hazard Analysis

**ANNEX A**

**TASK ORGANIZATION**

**ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN**

**1. SITUATION.** Same as base plan.

**2. PURPOSE.** This annex identifies the PCD Response Force Task Organization and outlines the structure of the Response Force.

**3. EXECUTION.**

**a. Concept of Operations.** The Installation Response Force (IRF) mission is accomplished through command personnel, operations teams, support teams, and external organizational elements. Personnel and equipment for sustained operations are primarily provided by PCD and HQDA/AMC agencies and activities.

**b. Task Organization.** The IRF organization is shown in Figure 1. The Installation Response Force Commander may tailor the response force to match the type of response required.

**4. SERVICE AND SUPPORT.** Same as base plan.

**5. COMMAND AND SIGNAL.**

**a. Command.** Same as base plan.

**b. Signal.** Same as base plan.

**APPENDICES:**

A-1 Command Staff

A-2 Operations Section

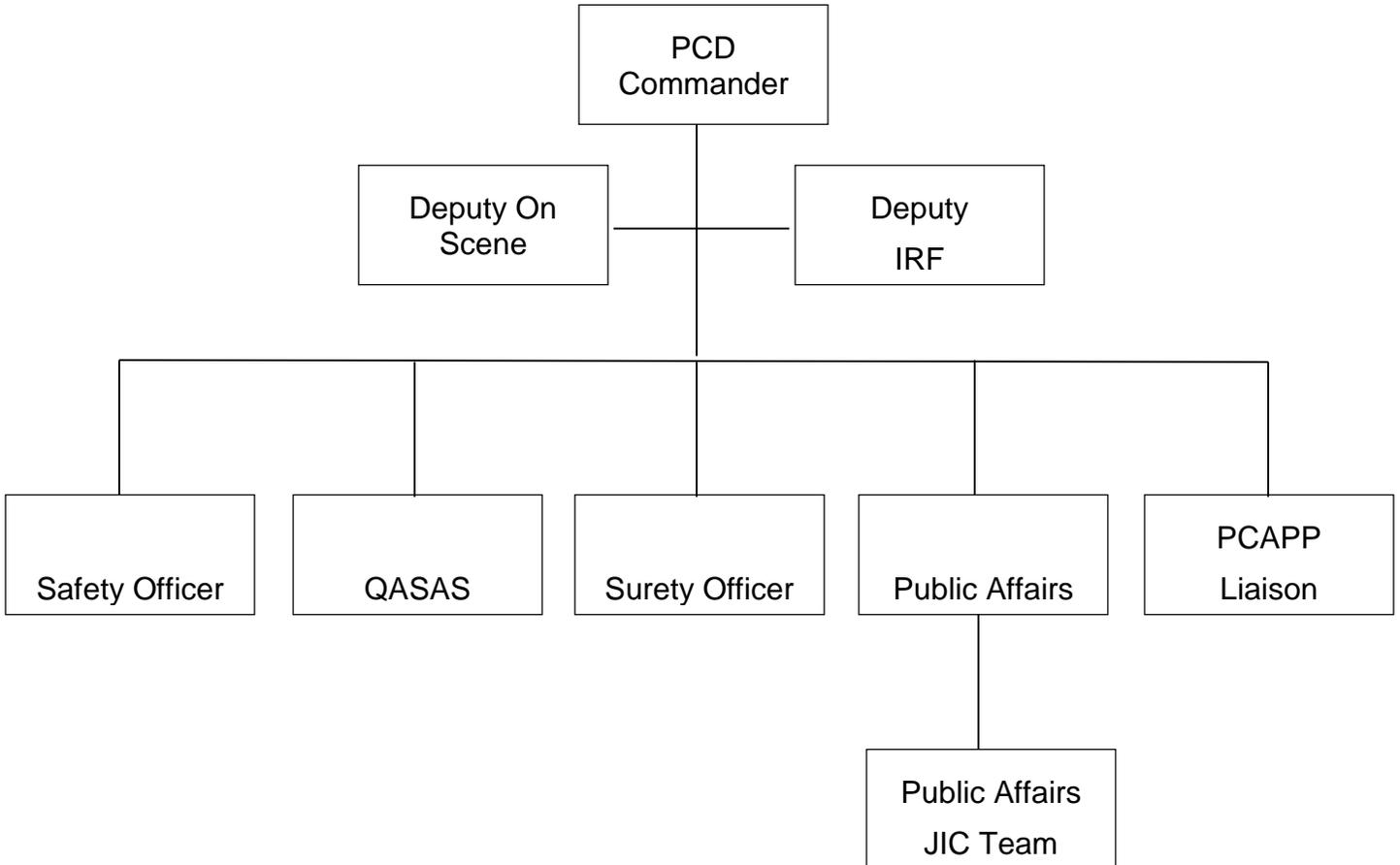
A-3 Planning Section

A-4 Logistics Section

A-5 Finance & Administration

## ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

**APPENDIX 1 (COMMAND STAFF)  
TO ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN**



- 1. SITUATION.** Same as base plan.
- 2. PURPOSE.** This Appendix outlines Command Staff responsibilities and procedures.
- 3. EXECUTION.**

**a.** Concept of Operations. The Command Staff consists of the senior leadership element of PCD that commands and controls the Army response to a CAI and coordinates all Federal support to State and local jurisdictions. Some of these positions may be dual-hatted, some are temporary, and not all positions need to be filled if response to the event does not warrant the capability:

## ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

**(1) Installation Response Force Commander (IRFC) / On-Scene Coordinator (OSC).**

This officer is responsible for coordinating all operations at the accident site. The IRFC / OSC is the responsible party who is operating to prevent, minimize, or mitigate damage to the public health or welfare or to the environment; to provide emergency medical services; to monitor and evaluate the release; to cleanup or remove the chemicals from the environment; to dispose of the removed chemicals; and to take any other actions required by Army guidance or directed by the Army Chain of Command to remedy the results of the chemical event. As the OSC, the IRFC is responsible for:

**(a)** Coordinating and directing Federal response operations in cooperation with State and local authorities, other Federal agencies, and appropriate private organizations.

**(b)** Ensuring all IRF personnel comply with environmental laws and regulations applicable to the DoD.

**(c)** Identify parties responsible for the CAI, if applicable.

**(d)** Collecting information about the materiel, source, cause, and potential harm of a release.

**(e)** Advising FEMA, when necessary, of potential disaster situations that could lead to a Presidential declaration of disaster.

**(f)** Assessing worker safety at the response scene.

**(g)** Notifying the Department of Health and Human Services (HHS) in cases where public health and/or worker health and safety are threatened or when transportation of chemical agents will be necessary.

**(h)** Notifying natural resource trustees (and land management agencies if they are different) of releases and discharges affecting resources under their jurisdictions.

**(i)** Notifying either the National Oceanic and Atmospheric Administration (NOAA) or the Department of Interior (DOI) of releases that could affect endangered species or their critical habitat.

**(j)** Developing a site remedial operation plan.

**(k)** Filing reports to the AOC.

**(l)** Notifying the NRC.

**(2) Deputy On Scene Coordinator.** The IRFC/OSC will be assisted by the Deputy On-Scene Coordinator (DOSC). The DOSC works directly with civilian authorities and serves as the link between the OSC and civilian authorities. The DOSC is also responsible for coordinating and directing the Federal response operations in cooperation with State and local

## ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

authorities, other Federal agencies, and appropriate private organizations. Specific responsibilities include:

- (a) Determine incident objectives and strategy.
- (b) Establish immediate priorities.
- (c) Establish an Incident Control Plan.
- (d) Establish an appropriate organization.
- (e) Ensure planning meetings are scheduled as required.
- (f) Ensure that adequate safety measures are in place.
- (g) Coordinate activity for all Command and General Staff.
- (h) Authorize release of information to the news media.
- (i) Approve requests for additional resources or for the release of resources.
- (j) Ensure incident status summary (IC Form 209 may be used) is completed and forwarded to appropriate higher headquarters.

(3) Deputy Installation Response Force Commander (DIRFC). This function is performed by the Deputy Commander. The DIRFC is second in command and directly responsible for operations and support under the direction of the IRFC. Primary interface is with higher headquarters and with outside agencies not on-site. The DIRFC is responsible for supervising the OC operations through the OC Cadre and will coordinate with the Operations Section Chief, Planning Section Chief, Logistic Section Chief and Finance & Administrative Section Chief to ensure operations are effective. The DIRFC will also verify all suspense's are met and coordinate the accommodation of installation evacuees.

(4) Safety Officer. Issues both general and chemical safety guidance to pertinent IRF personnel and provides safety reports to higher headquarters. Notifies Federal Aviation Administration (FAA) if the Commander determines the need for Temporary Flight Restriction (TFR) and keeps OC cadre informed of aviation activities pertaining to the CAI. Responsible for necessary timeline reports of unauthorized flights within the TFR to appropriate agencies. Provides general safety guidance and chemical safety guidance for all operating equipment and procedures; also prescribes required protective clothing. Specific responsibilities include the following:

- (a) Make telephonic notifications to the CMA OC and Army Operations Center (AOC) within 30 minutes of arrival in the PCD OC.
- (b) Provides safety advice and assistance as required.

## ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

- (c) Review the Incident Action Plan for safety implications.
- (d) Investigate accidents that have occurred within the incident area.
- (e) Monitor adequacy of decontamination procedures and efforts.
- (f) Report fatalities and hospitalization of injured personnel to the OSHA Area Office within 8 hours of occurrence.

(5) QASAS. Submits written Chemical Event Report via CBERS within 24 hours.

(6) Public Affairs Officer (PAO). Serves as personal adviser to the IRFC on all public affairs matters. Also apprises the IRFC on Joint Information Center (JIC) activities. During JIC operations, the Depot CSEPP Public Affairs Specialist (PAS) and designated Depot public affairs augmentees / Outreach Office specialists will normally operate from the JIC and maintain liaison with the Depot PAO in the OC. The PAO provides JIC operational guidance and frequent accident/incident status updates to the PAS or other designated Depot liaison. Public affairs efforts will focus on reinforcing public confidence in PCD's capabilities to respond to such an event. Information releases to media, officials, and concerned citizens will communicate the quick and efficient response to an event, with safety and security of life and property the paramount objective of any response.

(7) PCAPP Liaison Officer. Helps to provide coordination between the depot and PCAPP, including PCAPP EDS (when operating) for any assistance requested from PCAPP to support CAIRA operations on the installation. Provides status of PCAPP and PCAPP EDS workforce as it relates to accountability and evacuation of the PCAPP site.

(8) Surety Officer. Is the technical advisor to the IRF Commander advising him and the staff on all Chemical Surety matters.

**4. SERVICE SUPPORT.** Same as base plan.

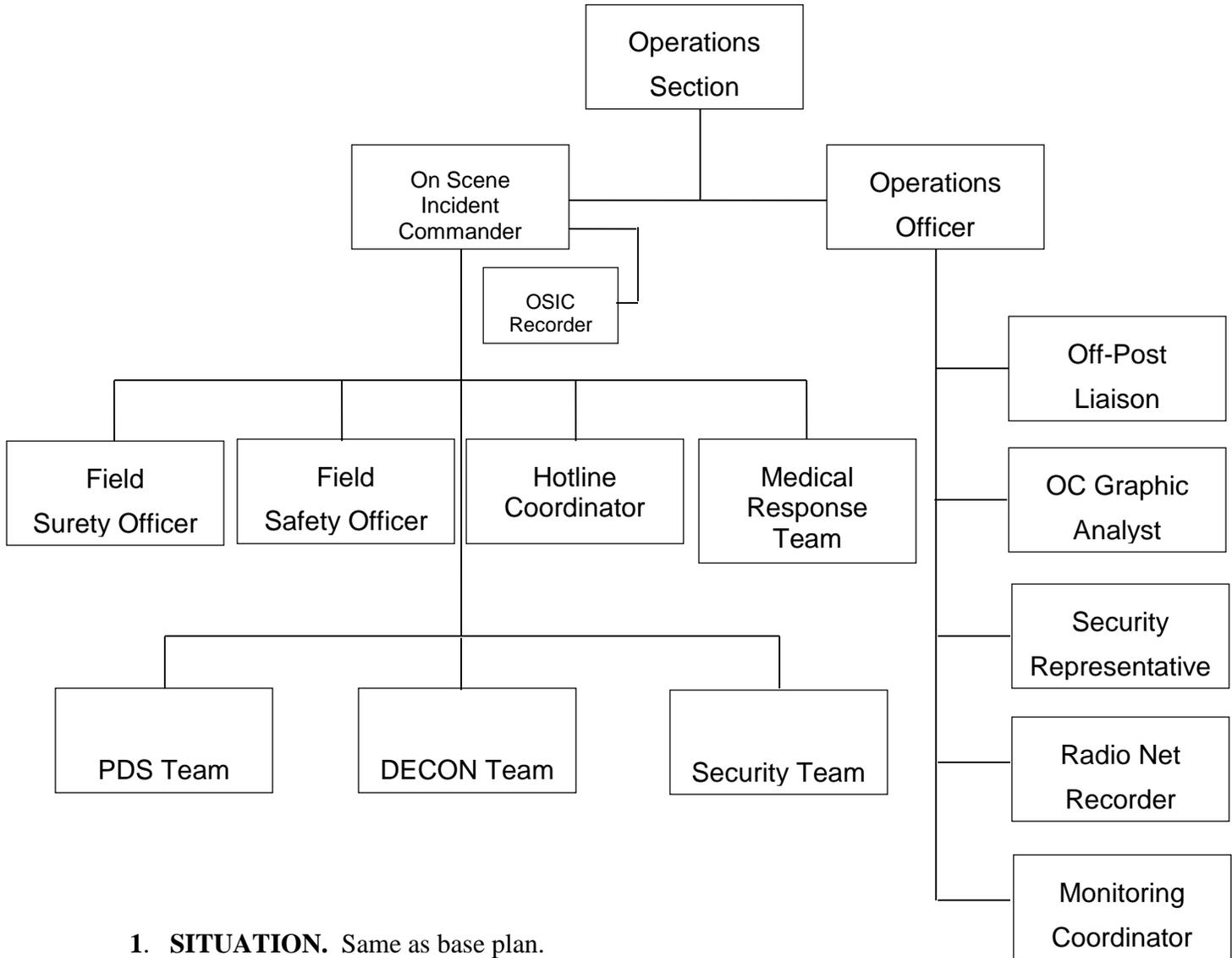
**5. COMMAND AND SIGNAL.**

**a. Command.** Same as base plan.

**b. Signal.** Same as base plan.

ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

**APPENDIX 2 (OPERATIONS SECTION)  
TO ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN**



1. **SITUATION.** Same as base plan.

2. **PURPOSE.** This Appendix outlines the Operations Section responsibilities and procedures.

3. **EXECUTION.**

a. **Concept of Operations.** The Operations Section is responsible for all activities focused on reduction of the immediate hazard, saving lives and property, establishing situational control, and restoration of normal operations.

(1) **Operations Section Chief.** During a CAIRA event, the Director, Mission Operations or his designated representative will function as the Operations Section Chief, who will be

## ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

responsible for the management of all operations directly applicable to the primary mission. In the absence of the Chief, the Operations Officer will assume his responsibilities. Specific responsibilities include:

(a) Directs the preparation of Unit operational plans, requests or releases resources, makes expedient changes to the Incident Action Plan as necessary.

(b) Brief and assign Operations Section personnel

(c) Supervise the Operations Section.

(d) Determine need and request additional resources.

(2) On Scene Incident Commander (OSIC). During a CAIRA event or any event not security related, the Installation Fire Chief or his designated representative will function as the On Scene Incident Commander. The OSIC will establish field command post and oversee all operations/activities being performed at the accident site (in the field) and ensure that the Operations Section Chief is apprised of activities in the field. As all field responses must be tailored to the specific conditions of the CAI, teams employed to respond to the CAI are also tailored based on the situation. Other specific responsibilities include:

(a) Maintain radio contact with the OC, accident/incident site, hotline, security forces, OHC, and emergency teams to ensure that appropriate procedures are being followed and to provide control and assistance.

(b) Evaluate the chemical accident/incident situation and recommend appropriate course(s) of action to the Chief, Operations Section and Chief, Planning Section.

(c) Implement the field portions of the IAP, while ensuring the safety of all field personnel.

(d) Continually reevaluate the CAI situation and meteorological data to ensure the hotline is in a safe location.

(e) Ensure that any follow-up actions and investigations are reported to the Chief, Operations Section.

(f) Disengage any units or personnel no longer needed in the field, and ensure their safe egress from the field.

(g) Where feasible, maintain integrity of pertinent evidence pertaining to the CAI.

(3) Field Surety Officer. Reports to the Incident Commander and observes the actions of emergency responders and the PDS and Decontamination Teams to ensure surety regulatory compliance.

## ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

(4) Field Safety Officer. Reports to the Incident Commander and observes the actions of emergency responders to ensure safety regulatory compliance.

(5) Hotline Coordinate. Controls operations at the CAI site until arrival of the OSIC at which time the hotline coordinator will brief the Incident Commander who then assumes control of the event. At that time, the hotline coordinator will assume oversight of hotline operations at the CAI site. The on scene Supervisory Firefighter or Senior Firefighter on-site will function as the coordinator.

(6) Medical Response Team. Manages the treatment of injured personnel and the respectful handling of human remains.

(7) PDS Team. Establishes the personnel decontamination station (PDS) used to decontaminate personnel contaminated during emergency response operations at the CAI site.

(8) Decon Team. Apply decontaminating solution to contaminated equipment, buildings, igloos, munitions, dunnage / packaging, and soil. Normally uses M12A1 decontaminating apparatus. Establishes a hot line with a contamination reduction area. Employs contamination control teams to control spreading of contamination, assess CAI scene and provide information to Incident Commander and Operations Section Chief on status of CAI site.

(9) Security Team. Provides security oversight of the CAI, the team will be supervisor under the OSIC by the senior security patrol person located in the CLA (i.e. CPT, LT, SGT, etc.) that will co-locate in the area of the OSIC along with a separate team member functioning as a barrel guard.

(10) OSIC Recorder. Records and provides a written detail of all events and actions that take place at the Field Command Post at the direction of the Incident Commander.

(11) Operations Officer. During a CAIRA event or any event requiring activation of the Operations Center, the Chief, Plans and Operations Branch or his designated representative will function as the Operations Officer. The Operations Officer will oversee overall management of OC operations and ensure that all emergency response duty positions are filled. Will ensure though regular update briefings that all OC Cadre personnel are kept current of the status of the CAI.

(a) Off Post Liaison. During a CAI relocates to the County EOC where he/she serves as the contact for assisting and/or cooperating agency responsibilities with the various organizations responding to the event.

(b) Security Representative. Though the on-site security team monitors and directs security operations to ensure security of the CAI site and surety material.

(c) Radio Net Recorder Team. Transcribes all information broadcast over depot radios during a CAI response.

## ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

(d) Monitoring Coordinator. Serves as the point of contact for all monitoring operations at the CAI site. Directs monitoring teams in support of the Incident Commander analyzing potential downwind hazards.

(e) OC Graphics Analyst. Ensure that the wall mounted visual status board is updated with current event information for display to the entire OC.

**4. SERVICE SUPPORT.** Same as base plan.

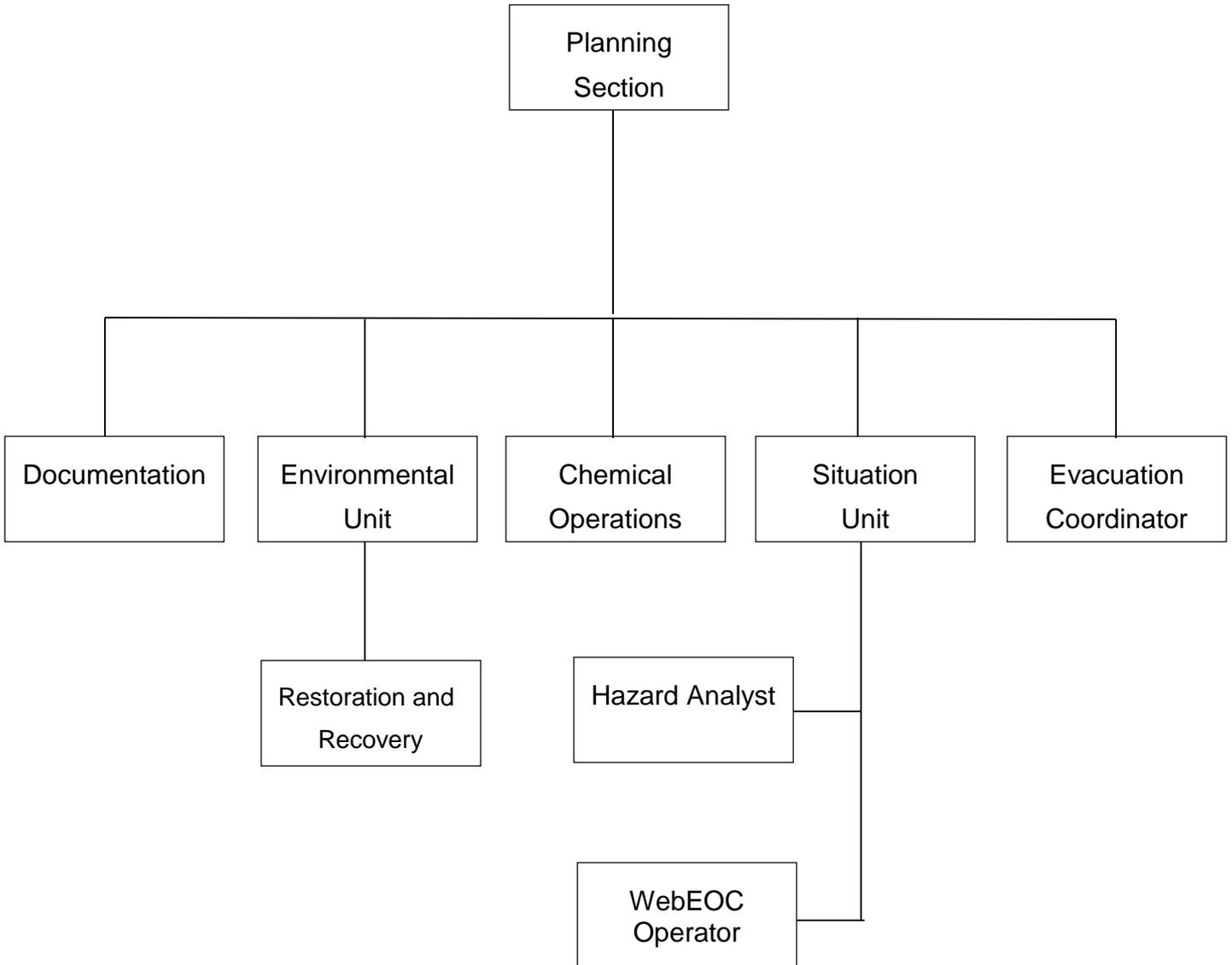
**5. COMMAND AND SIGNAL.**

**a. Command.** Same as base plan.

**b. Signal.** Same as base plan.

## ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

**APPENDIX 3 (PLANNING SECTION)  
TO ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN**



**1. SITUATION.** Same as base plan.

**2. PURPOSE.** This Appendix outlines the Planning Section responsibilities and procedures.

**3. EXECUTION.**

**a.** Concept of Operations. The Planning Section is responsible for collecting, evaluating, and disseminating tactical information pertaining to the incident. It maintains information and intelligence on the current and forecasted situation, as well the status of resources assigned to the

## ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

incident. The section prepares and documents the Incident Action Plan and incident maps and gathers and disseminates information and intelligence critical to the incident. The Planning Section is appointed by the IRF Commander.

(1) Planning Section Chief. This function is performed by the Director of Base Operations or his / her designated representative. Responsible for overseeing all incident related data gathering and analyses regarding incident operations and assigned resources. Conducts planning meetings and prepares the Incident Action Plan for each operational period. In the absence of the Chief, the Operations Officer shall assume his / her responsibilities. Other specific responsibilities include:

- (a) Provide input to the IRF Commander and Operations Section in preparing the IAP.
- (b) Assemble planning team when necessary, and facilitate planning meetings to develop the IAP. Members of the planning team will be chosen based on the particulars of the CAI, however, a PCD Safety professional and a PCD Environmental representative will be included.
- (c) Identify planned resources to the Chief, Logistics Section.
- (d) Provide periodic predictions on incident potential.
- (e) Report any significant changes in incident status.
- (f) Compile and display incident status information.
- (g) Publish, in appropriate formats, and disseminate all approved IAPs promptly to all necessary personnel.
- (h) Oversee preparation and implementation of the Incident Demobilization Plan (if needed).
- (i) Prepare briefings as requested.

(2) Environmental Unit. This function is performed by the PCD Environmental Manager or her / his designated representative from the Environmental Management office. Assesses extent of contamination. The unit prepares an estimated impact report of the contamination to public facilities. Works with the IRF Commander to ensure site restoration plans and actions are in compliance with the appropriate standards. Ensures the NRC, EPA, and the Colorado Division of Public Health and Environment (CDPHE) has been notified.

(3) Restoration & Recovery (Environmental Management Office). Prepares CAI restoration / remediation options and plans. Coordinates and directs restoration efforts and resources.

(4) Documentation (POTD). The unit acquires and archive all CAI-related documentation (to include records of all key decisions), as required by the NCP. This will

## ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

include preservation of evidence, including all record of interviews with eyewitnesses, photographs of the CAI site, paper and taped transcripts of telephone calls made and received during the response, emails generated and received by all response action officers, and electronic and hard copies of computerized logs generated during the response.

(5) Situation Unit. This function is performed by the Chief, Plans and Operations Branch and his staff or the senior Hazard Analyst in the Operations Center. Notifies or ensures notification to off-post CSEPP agencies of chemical event or incident and ensure all notifications are completed within the initial time limit. Other specific responsibilities include:

(a) Acts as the IRF Commander's liaison with off-post Emergency Management Agencies - City, County, State and Federal.

(b) Prepares and disseminates the IRF Commander's Protective Action Recommendations (PARs) to the local communities and Protective Action Decisions (PAD's) are disseminated to PCAPP and other on post agencies.

(c) Directs the preparation of site contamination assessments and assure continuous updates of the downwind hazard data and maintains awareness of all off-post requests / requirements on behalf of the IRF Commander. Collects, processes, and organizes ongoing situation information and prepares situation summaries.

(d) Develops projections and forecasts of future events based on current and forecasted weather as they relate to the incident.

(e) Prepares maps and gathers and disseminates information and intelligence for use in the Incident Action Plan.

(6) Hazard Analyst. Using the Army approved hazard prediction model (WebPuff), compute (predict and plot) downwind hazard area using current weather and MCE data. Maintain plots of the downwind hazards on maps; update and verify validity of plots as required; adjust downwind hazard plots as situation develops and information is obtained. The hazard analyst coordinates all information with Situation Unit Leader.

(7) WebEOC Operator. Ensure that WebEOC is operational and all current significant information is posted to local and regional status boards so information can be shared with off-post agencies and emergency personnel. Coordinates all information posted in WebEOC with Situation Unit Leader.

(8) Chemical Operations. Ensures that all planning processes are conducted using the most current SOPs and that the appropriate manpower and equipment is readily available for use by the Incident Commander.

(9) Evacuation Coordinator. The coordinator implements the evacuation plan to include coordinating needs and status with Security, OC Operations Office and the Operations Section

## ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

Chief. The Evacuation Coordinator will identify problems in the evacuation of personnel and vehicles, and work with OC personnel to solve those problems requesting resources as needed.

**4. SERVICE SUPPORT.** Same as base plan.

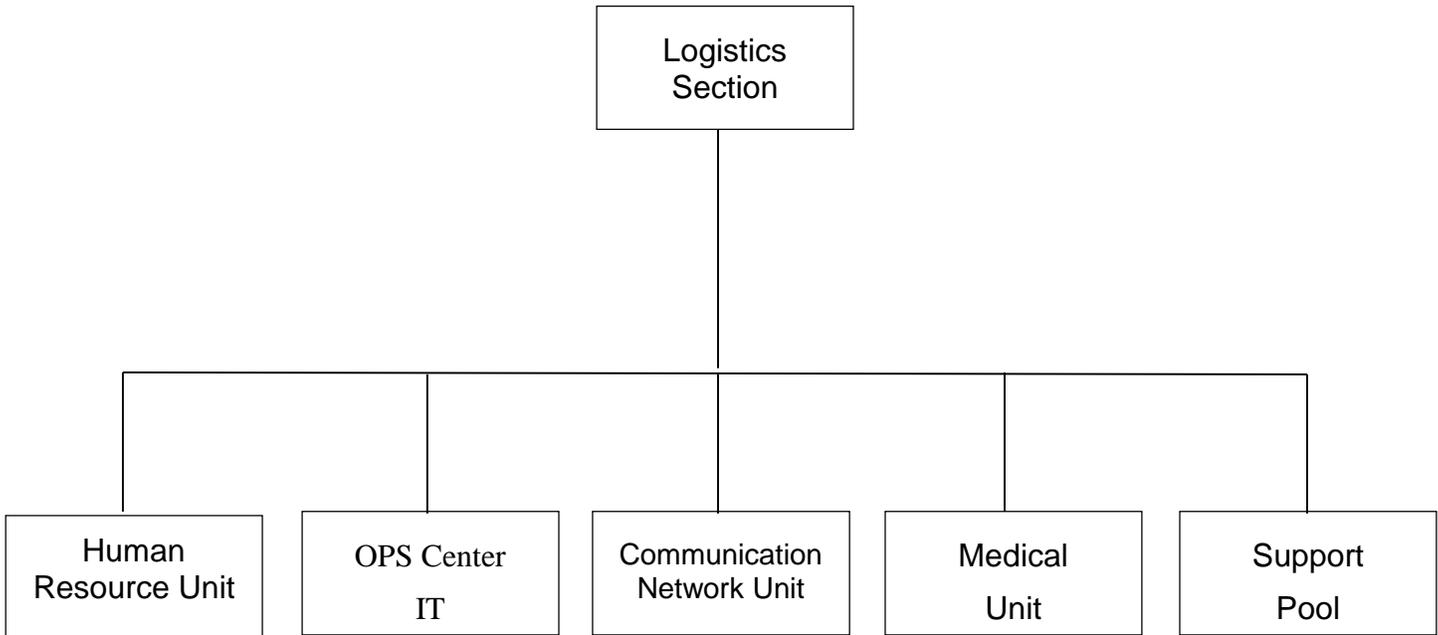
**5. COMMAND AND SIGNAL.**

**a. Command.** Same as base plan,

**b. Signal.** Same as base plan.

## ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

**APPENDIX 4 (LOGISTICS SECTION)  
TO ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN**



**1. SITUATION.** Same as base plan.

**2. PURPOSE.** This Appendix outlines the Logistics Section responsibilities and procedures.

**3. EXECUTION.**

**a. Concept of Operations.** The Logistics Section supports the needs for the incident, including ordering resources through appropriate procurement authorities. It provides facilities, transportation, supplies, equipment maintenance and fueling, food service, and communications for incident personnel. A continuous exchange of information among logistical supervisors and personnel is essential to the success of both operational and logistical plans. Logistics operations will be tailored to correspond to the magnitude of the Chemical Accident / Incident. There are three phases for logistics operations:

- Immediate operations. During this phase, stockpiled and immediately available supplies, equipment and personnel are used to support operations conducted by the IRF. This phase may be the only one that needs to be implemented, when the CAI does not have far reaching consequences.

- Contingency operations. During this phase, required Depot assets continue to be used and

## ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

reinforced in support of the IRF. Contingency support logistics operations are planned jointly by the Depot staff.

- Deliberate operations. During this phase, CMA, and DA supplied assets are used to provide logistics support. Depot assets that have been expended are replaced. Assets required to continue logistical support for CAIRA operations are provided by CMA and DA. Day to day Depot logistics operations resume.

(1) Logistics Section Chief. This function is performed by the Chief of Logistics or his / her designated representative. Supervises and coordinates all logistical and administrative support for the response effort. In the absence of the Section Chief, the Senior Logistics Specialist will assume the responsibilities. Other specific responsibilities include:

(a) Gives advice on all actions relating to logistical support requirements, and coordinates with DOD and/or Federal activities to obtain additional logistics support when requirements are beyond the capability of the nearest Army installation.

(b) Contracts for materials, equipment, and services; issues supplemental agreements, modifications, and terminations to contracts or purchase orders; and arranges for inspection and acceptance of purchased material and services.

(c) Ensure accountability of any accountable property used to support the response.

(d) Develop abbreviated ordering procedures in order to expedite the acquisition process during emergency operations. All items ordered and received will be reported to, and coordinated through, the OC.

(2) Communications Network Unit. This function is performed by the Installation Information Manager and his staff to ensure assets for all disciplines of information management is available to the IRF, especially reliable communications between the site, higher headquarters, and other assisting agencies. Also provides support to ensure that automation systems are maintained. When required or appropriate, function can be performed outside the OC.

(3) Support Pool Unit. Ensures assets to support the logistical section are in place and available for use to include evacuation drivers, clerical support and telephone operators.

(4) Medical Unit. This unit is under the direction of the Installation Medical Authority who directly coordinates actions of the on-site medical services personnel, health clinic and Medical Command augmentation teams. The unit provides advice to off-post medical communities in dealing with chemical casualties.

(5) Human Resource Unit. This function is performed by the Lead Budget Analyst with assistance from the Workforce Management Specialist and Family Assistance Notifier. Together they provide all those services normally provided by an Army Installation Civilian Personnel Office. Other specific responsibilities include:

## ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

(a) Tracks the status of injured personnel, to include those sent off post to medical care facilities, until they are released by the Medical Response Team Leader.

(b) Provides Next-of-Kin (NOK) data and employee information regarding age, length of service, insurance coverage(s), and retirement plans to the NOK Notification Team that is assembled to perform notification of NOK.

(6) Ops Center IT. Ensures that the CSEPP computer network is operational.

**4. SERVICE SUPPORT.** Same as base plan.

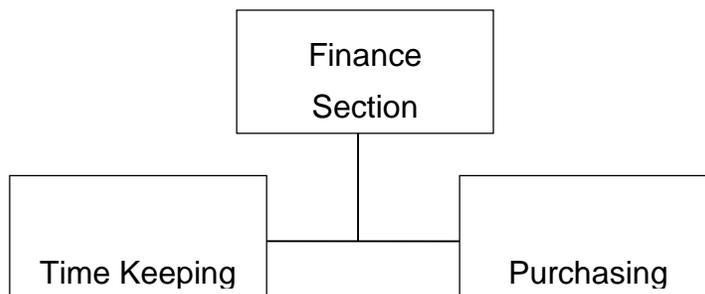
**5. COMMAND AND SIGNAL.**

**a. Command.** Same as base plan.

**b. Signal.** Same as base plan.

## ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

**APPENDIX 5 (FINANCE AND ADMIN SECTION)  
TO ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN**



**1. SITUATION.** Same as base plan.

**2. PURPOSE.** This Appendix outlines the Finance and Administrative Section responsibilities and procedures which at PCD are under the Budget and Human Resource Office.

**3. EXECUTION.**

**a.** Concept of Operations. When there is a specific need for financial, reimbursement, and/or administrative services to support incident management activities, a Finance / Administrative Section will be established with resources from the Budget and Human Resource Office.

**(1) Finance & Administrative Section Chief.** This function is performed by the Budget and Human Resource Manager who will track and report to the Incident Commander the financial status as the incident progresses. Monitor all costs expenditures to ensure that statutory rules that apply are met. Ensure that close coordination with the Planning Section and Logistics Section so operational records can be reconciled with financial documents, in addition provide input on cost estimate for resource use to the Planning Section. In the absence of the Section Chief, the Deputy will assume the responsibilities. Other specific responsibilities include:

**(a)** Will determine, given current and anticipated future requirements, the need for establishing specific subordinate units.

**(b)** Ensure appropriate JONO / PCN is published / distributed in order to collect all costs associated with the IRF efforts relative to the chemical event. Estimated costs may be accurately inferred from available data and should be reported as estimated costs until actual cost information is available.

**(c)** Supervise the Budget and Human Resource Office.

**(d)** Ensure equipment and personnel for which payment is required are properly identified, obtain and record all cost data, and analyze and prepare estimates of incident costs.

## ANNEX A (TASK ORGANIZATION) PCD CAIRA PLAN

(2) Timekeeping Unit (function performed by Workforce Specialist). Responsible for ensuring proper daily recording of personnel time, in accordance with the policies of the Installation. Ensure that all employee identification information is verified to be correct on the time report. Maintain records of excess hours worked.

(3) Procurement Unit (function performed by Acquisition Officer). Responsible for administering all financial matters pertaining to vendor contracts. Coordinate with local jurisdictions to identify sources for equipment, prepares and signs equipment rental agreements, and processes all administrative requirements associated with equipment rental and supply contracts. Other specific responsibilities include:

- (a) Review incident needs and any special procedures as needed.
- (b) Prepare contracts for Command approval.
- (c) Establish contracts and agreements with supply vendors.
- (d) Interpret contracts and agreements; resolve disputes within delegated authority.
- (e) Coordinate with Claims for processing claims.
- (f) Complete final processing of contracts and send documents for payment.

**4. SERVICE SUPPORT.** Same as base plan.

**5. COMMAND AND SIGNAL.**

**a. Command.** Same as base plan.

**b. Signal.** Same as base plan.

# **ANNEX B**

# **INTELLIGENCE**

**(See PCD Physical Security Plan and Appendix B of  
the PCD's AT/FP Plan for detailed procedures)**

# **ANNEX C**

## **NOTIFICATION PROCEDURES**

**(Refer to Emergency Management Plan – Annex I)**

# **ANNEX D**

## **FIRE AND RESCUE SUPPORT**

**(Refer to Emergency Management Plan – Annex J)**

## ANNEX E (OC OPERATIONS) PCD CAIRA Plan

**ANNEX E (OC OPERATIONS) PCD CAIRA Plan**

**1. SITUATION.** Same as base plan.

**2. PURPOSE.** Provide a central point for operations in support of special and emergency situations, enabling effective face-to-face coordination during a CAI. Additionally, serves as central point for assembly and display of essential information required by the PCD Commander and for initiating, monitoring, and evaluating actions by Depot Response forces during a CAI.

**3. EXECUTION**

**a.** The PCD OC is a limited-access area, which operates in Normal Watch Status (12-hour shifts with a minimum staffing of two Hazard Analysts) to serve as the Command and Control center for PCD activities. Information with a security classification of SECRET can be discussed within the PCD OC once it has been verified that all personnel present have clearance. The Chief Plans and Operations Branch maintains the OC in a state-or-readiness. Under emergency and special situations of increasing status level, the OC is activated by the Installation Commander, Deputy Commander or Operations Officer and is staffed with augmentation personnel representing the different directorates on the installation.

**b.** Upon notice of a CAI, OC Emergency Responders will report to the OC located in Bldg 2. Notification of a CAI event will be made to the depot staff through both sirens and depot PA system. Upon arrival they will follow their respective policies and procedures for response to a CAI and complete the tasks identified in checklists.

**c.** All personnel will ensure that all actions and substantive discussions (to include telephone conversations) will be recorded in logs and notes. Logs, notes, recorded OC telephone conversations, official forms, etc., will be preserved and become part of the permanent record of the event.

**d.** The OC Operations Officer will maintain oversight of all actions within the OC, ensuring that required steps toward resolution of the CAI are achieved and that all efforts toward that goal are coordinated properly through the Operations Section Chief, Planning Section Chief, Logistics Section Chief, Finance and Administration Section Chief and other members of the OC Cadre.

**e.** As the extent of a CAI increases, the OC Operations Officer will ensure development of staffing rosters for 24-hour shift operations, ensuring that all necessary positions and functions are covered. Shift times synchronized with the operational period will allow sufficient overlap between shifts for a smooth transition.

**f.** Upon sufficient control of a CAI and based on mission requirements, the IRF Commander specify reduced manning of the OC as control of the CIA is achieved.

**4. SERVICE SUPPORT.** The OC Operations Officer is responsible for ensuring required service support of the OC.

ANNEX E (OC OPERATIONS) PCD CAIRA Plan

**5. COMMAND AND SIGNAL.**

**a. Command.** Same as base plan.

**b. Signal.** Same as base plan.

# **ANNEX F**

## **EVACUATION PROCEDURES**

**(Refer to Emergency Management Plan – Annex E)**

# **ANNEX G**

## **INFORMATION SYSTEM SUPPORT**

**(Refer to Emergency Management Plan – Annex G)**

## ANNEX H (SECURITY) PCD CAIRA PLAN

**ANNEX H (SECURITY) PCD CAIRA Plan**

**1. SITUATION.** Same as base plan.

**2. PURPOSE.** To establish requirements for the physical security of CSM and personnel during situations outlined in the threat analysis and local threat statement; and to outline procedures and responsibilities during CAIRA operations, to include coordination with local, state and federal agencies.

**3. EXECUTION****a. Concept of Operation.**

**(1) CAI Assessment.** The security response team must immediately assess the security situation surrounding a CAI, determine what security requirements need to be met, and assist personnel at the site within the security team's capabilities at the direction of the senior operations crew member. Information gathered at the site will be transmitted to the SSCC as soon as possible for transmittal to all emergency response personnel by methods established in Annex C. No emergency responders other than Security personnel will enter the CAI site if intruders are/may be present.

**(2) General Security Procedures.** Entry into the CAI site will be controlled by security guards. Team leaders for all CAI response teams will furnish a written list of team personnel entering the CLA to security at the PCD and PCAPP EDS entry points (as described below). Entry point security guards will maintain a running count of personnel in order to report to the IRF Commander, or his designated representative, exactly how many personnel are in the CLA at any time.

**(3) Emergency Entrance Procedures.** In the event of a CAI (real or simulated), normal entry/exit procedures will be suspended to allow for the rapid entry/exit of emergency response vehicles and personnel. Normal entry procedures will resume as soon as the immediate emergency has concluded and it becomes practical. Entry control gate guards will maintain a head count of all personnel entering or departing the area. Emergency response crews will provide the entry control guard with a list of all personnel in the responding emergency vehicle upon entry. Entry control guards will verify the authenticity of the senior member of the responding emergency crew or force, using the senior members Common Access Card. The driver of a vehicle will be considered to be the senior member. When the emergency situation or exercise is concluded, each person admitted under rapid entry procedures will be positively identified at the entry control point before exiting from the area. A 100 percent inventory of surety keys and chemical badges will be conducted to ensure accountability of these items before returning to normal operations.

## ANNEX H (SECURITY) PCD CAIRA PLAN

**b. Security will:**

(1) Establish an initial exclusion area a minimum of 450 meters around the accident site if an explosion, fire or smoke is present and 50 meters upwind for spills, ensure no personnel (including security personnel) enter this area unless cleared by the OSIC. For safety (e.g., prevention of heat stress) and mission sustainability purposes, Security personnel will be dressed in the lowest level of protective clothing and equipment consistent with mission requirements and the actual levels of hazard(s) expected to be encountered.

(2) A senior member (i.e. CPT, LT, SGT) of the security force will respond to the location of the OSIC to function as the Security Team Leader.

(3) Seal off roads, establish traffic control points, and prevent unauthorized personnel from entering designated security areas.

(4) Ensure strict security measures are in effect to protect/recover munitions in the event of loss, seizure or theft, including protection/recovery of munitions/components and/or to counter potential terrorist or radical group activities or intelligence collection efforts.

(5) Safeguard any classified defense information and protect Department of Defense (DoD) equipment and/or material.

(6) Provide necessary operations security (OPSEC) reviews and guidance as needed.

(7) Assist in notification and/or evacuation of on-post transient residents, non-responder employees, tenants, contractors, and visiting personnel as requested by the Chief, Operations Section.

(8) Recall off-duty security guards, as needed.

(9) Through the OC, establish contact and coordinate with state and local law enforcement activities, and with the Military Security Augmentation Force (AF), as necessary. Make a recommendation to the IRFC if the AF is required.

(10) Prepare required security/intelligence reports based upon data received. Upon command approval, coordinate requirements with local intelligence units for counterintelligence inspections and surveys.

(11) Ensure that all non-threat personnel are directed to evacuation routes or contamination reduction areas, as appropriate. Suspected or actual threat personnel will be detained and provided armed escort to a holding area or contamination reduction area/medical facility, and then to a holding area, as appropriate.

(12) Once a CAIRA or CSEPP operation or exercise has been declared an accident and it is determined that there is no hostile threat, the primary duties for Security in support of the accident response will be access controls at the installation gates and into the accident site, and traffic control in support of the accident site and the evacuation points across the installation IAW the directions of the OSIC.

(13) Ensure tasks in the Security OC Checklist are accomplished.

## ANNEX H (SECURITY) PCD CAIRA PLAN

**c. Documentation.** PCD security managers will ensure that PCD security plans and procedures contain the following information in order to adequately support CAIRA operations:

- (1) Operational security procedures; which consists of , perimeter access and entry procedures, information security, rules of engagement, and use of deadly force.
- (2) A description of the interface with federal, state, and local law enforcement officials, to include identification of emergency security assets and assistance available for off-post movement of chemical agent material. Specific points of contact and phone numbers may be included in a separate appendix.
- (3) Procedures for locating and operating the security operations center.
- (4) Guidance for handling unprotected personnel encountered in the contaminated area.
- (5) Procedures for coordinating with contamination control personnel to ensure sentry posts outside the controlled area are not affected by contaminants spread during wind shifts.
- (6) Administrative and logistic requirements, for example, entry logs, badges, and materials required (rope, stanchions, and signs), to establish the restricted area, special communications, and clothing requirements.

**4. SERVICE SUPPORT** – Same as base plan.

**5. COMMAND AND SIGNAL**

- a. **Command.** Same as base plan.
- b. **Signal.** Same as base plan.

# **ANNEX I**

## **MEDICAL SUPPORT**

**(Refer to Emergency Management Plan – Annex H)**

## ANNEX J (AGENT AND MUNITIONS OPERATIONS) PCD CAIRA Plan

**ANNEX J (AGENT AND MUNITIONS OPERATIONS) PCD CAIRA Plan**

**1. SITUATION.** Same as base plan.

**2. PURPOSE.** To provide immediate assistance to prevent further personnel injury, property damage, or spread of contamination; provide complete and timely containment and/or neutralization and removal of all chemical agents and other hazards involved in the CAI in order to quickly restore normal operations. Operations performed IAW current applicable Standing Operating Procedures (SOP). All personnel will follow the procedures established in the applicable SOPs when conducting agent and munitions operations.

**3. EXECUTION****a. Concept of Operations.**

(1) CAIRA operations begin with the notification of a known or suspected CAI, proceed through the initial reconnaissance; continue with containment or elimination of the agent source; and end with final decontamination and removal of all hazards from the affected areas.

(2) Priorities for responding forces are as follows:

(a) Administration of first-aid/buddy-aid to injured personnel and their evacuation out of the hazards area, as well as other immediate life saving measures.

(b) Determination from available information of the type and extent of hazard(s) present.

(c) Evacuation of nonessential, uninjured personnel from the hazard area as soon as the situation allows.

(d) Cordoning off the affected area.

(e) Elimination and final disposition of the hazard(s) and its/their source(s).

**(3) Agent Containment.**

(a) The Chief, Planning Section will develop an IAP based on the evaluation of all information received from the CAI site. He/she should consult with the Explosive Ordnance Disposal (EOD) Officer (if appropriate), the Chief, Operations Section, the Safety Manager, the Environmental Officer, and other personnel on the planning team. Once agreement on the IAP has been reached, the IRF will approve or recommend changes to the IAP. Once approved by the Commander, the Chief, Operations Section, through the OSIC, will direct the work party to proceed to the CAI site to begin agent containment operations IAW the IAP. (Note: the PCD CAIRA Plan shall serve as the initial IAP until the IAP development process is instituted.)

(b) In cases where render safe procedures (RSP) are required due to either an explosion or the potential for an explosion, EOD must perform RSP procedures prior to beginning containment operations, based on the condition of the explosive components present. EOD support will be requested by OC staff from the U.S. Army 20<sup>th</sup> Chemical, Biological, Radiological, Nuclear, and Explosives Command at commercial 410-436-6200/DSN 584-6200 (electronic mail 20SUPCOMOPS@apea.army.mil).

## ANNEX J (AGENT AND MUNITIONS OPERATIONS) PCD CAIRA PLAN

(4) After the source of contamination has been controlled, decontamination operations will begin IAW the appropriate SOPs. These operations will be performed by the Decontamination Team. Removal of hazardous materials must include not only chemical agent hazards, but all other hazards that may be present at the CAI site.

(5) The Deactivation and Transition will occur from response to recovery operations after completion of the removal/decontamination and the monitoring phase.

**4. SERVICE SUPPORT.** Same as base plan.

**5. COMMAND AND SIGNAL.**

**a. Command.** Same as base plan.

**b. Signal.** Same as base plan

ANNEX K (PUBLIC AFFAIRS SUPPORT) to PCD - CAIRAP

# **ANNEX K**

## **PUBLIC AFFAIRS**

**(Refer to Emergency Management Plan – Annex K)**

## ANNEX L (LOGISTICS SUPPORT) to PCD - CAIRAP

**ANNEX L (LOGISTICS SUPPORT) to PCD – CAIRAP****1. MISSION**

To provide necessary logistics support to all forces responding to a CAI at PCD, to include equipment, maintenance, supplies, acquisition, billeting and messing.

**2. EXECUTION****a. Concept of Operations.****(1) General.**

(a) The IRF will provide logistical support through the Logistics Section as much as capabilities allow. If additional supplies, equipment, and personnel are needed, the IRFC/IC/OSC has the authority to request augmentation from the Army through military channels or from other agencies as the federal On-Scene Coordinator under the NCP.

(b) Since the immediate availability of personnel, supplies, and services is a critical factor in the success of any CAIRA response, the Chief, Chemical Operations Division will identify and maintain a current listing of resources available.

(c) When required, the Chief, Logistics Section will request, through the CMA Operations Center, the push package from Blue Grass Chemical Activity to supplement installation resources. (Note: whenever an updated Push Package contents list is received from higher headquarters, the Chief, Plans, Operations and Training Division will make the Push Package list available to appropriate personnel in the PCD OC.)

**(2) Specific.**

(a) Stockpiled and immediately available supplies and equipment as well as available personnel will be used at the onset of a CAI, unless specific directions to the contrary are provided by this CAIRA Plan, the IRFC, or higher headquarters.

(b) Requisitions to obtain identified supply requirements during CAIRA operations will be given priority. The Resource Management office will keep detailed records of all requisitions.

(c) Requests for equipment, vehicles, equipment maintenance, billeting and food service required for CAIRA operations in excess of normal operations will be passed to the OC for processing by the Chief, Logistics Section.

(d) The PCD Logistics Officer will, during the readiness phase, identify alternative sources of water to support decontamination operations (in case sources on-post are insufficient).

**b. Chief, Logistics Section will:**

(1) Upon request from the OC, prepare emergency requisitions for supplies and materials required for response to a CAI.

(2) Serve as the IRF Commander's representative for billeting, messing, transportation, etc. to external support staff as well as to official investigation teams.

ANNEX L (LOGISTICS SUPPORT) to PCD - CAIRAP

**c. Housing Manager will:**

- (1) Report to the Chief, Logistics Section
- (2) Maintain a current roster of available on-post areas where augmenting responders may be quartered.
- (3) Provide available on-post quarters to approved individuals, if available.
- (4) Maintain appropriate paperwork on usage of available on-post transient quarters.
- (5) Coordinate sheltering for evacuated transient residents, if needed.

**d. Coordinating Instructions.**

All logistics actions taken in support of a CAI will be coordinated through the Chief, Logistics Section.

**3. COMMAND AND SIGNAL - See Annexes A and G**

# **ANNEX M**

## **LEGAL**

**(Refer to Emergency Management Plan – Annex M)**

## ANNEX N (MONITORING) PCD CAIRA Plan

**ANNEX N (MONITORING) PCD CAIRA Plan**

1. **SITUATION.** Same as base plan.
2. **PURPOSE.** To define monitoring procedures and to outline record keeping requirements.

**3. EXECUTION OF MONITORING**

In the event of a release of mustard agent on-site at PCD, the following steps should be taken:

- a. Dispatch mobile monitoring teams.
- b. Initiate monitoring at the hotline, the OHC, and as directed by the Monitoring Site Coordinator.

**4. RESULTS OF MONITORING**

a. The Monitoring Site Coordinator will direct and deploy the Low Level Monitoring Real Time Analytical Platform (RTAP) Detection Teams as appropriate and necessary to determine the direction and concentration of the CAI agent release. Monitoring should materially assist in the control, removal and remedial efforts following a chemical accident/incident. In order to instill confidence that chemical agent has not migrated off-post, RTAPs will be deployed off-post, but only when requested by local authorities and when available.

b. Monitoring results will be evaluated to ascertain a variety of factors regarding the effects of the CAI. The Monitoring Site Coordinator will keep a record of the analysis of all low level monitoring samples.

c. The Monitoring Site Coordinator will perform the tasks listed in the Monitoring Site Coordinator OC Checklist.

**d. Monitoring Continuation.**

(1) Monitoring results assist in determining removal and remedial action measures by finding hazardous materials that need to be removed and ensuring that areas under long-term monitoring remain “clean”, as predicted (as applicable).

(2) Monitoring will continue during removal and recovery/remedial action activities to ensure that all hazardous materials are found and removed, and that public access areas remain “clean” long-term, as determined through agreements with off-post authorities during the remediation process and as determined necessary by the RPM (as applicable).

(3) Monitoring will terminate when sufficient analytical results indicate that the area in question is safe for unrestricted access to all personnel, subject to agreements reached with off-post authorities (and possibly with the EPA), as applicable.

(4) Low level monitoring samples that are analyzed and found to exceed established Airborne Exposure Limits (AEL) will be reported to the OC immediately.

**5. RECORD KEEPING**

The official monitoring records will be maintained on file by the Lab and Monitoring Branch, Chemical Operations Division. A copy will be provided to the OC and the Safety Office.

ANNEX N (MONITORING) PCD CAIRA PLAN

**6. SERVICE SUPPORT.** Same as base plan.

**7. COMMAND AND SIGNAL.**

**a. Command.** Same as base plan.

**b. Signal.** Same as base plan

## ANNEX O (METEOROLOGY) PCD CAIRA Plan

**ANNEX O (METEOROLOGY) PCD CAIRA Plan**

**1. SITUATION.** Same as base plan.

**2. PURPOSE.** Establish procedures for obtaining meteorological data for use in predicting downwind hazard areas. Meteorological models include the effects of the wind, stability, temperature, mixing layer height, terrain, and meteorological trends. The US Army Chemical Material Activity's WebPuff system is accredited for potential chemical stockpile and non-stockpile accidents. The D2-Puff software algorithm in WebPuff predicts dispersion patterns, travel times, and concentration levels in the atmosphere of possible releases of chemical agents stored at chemical storage sites, chemical demilitarization sites, chemical test laboratories or toxic chemicals at industrial chemical facilities.

**3. EXECUTION.**

**a.** Prior to chemical operations, atmospheric dispersion conditions will be analyzed by the hazard analyst to determine the potential hazard using WebPuff. They will plot hazard zones, based on meteorological conditions determined from the meteorological (met) towers and the specific operation(s) to be performed to ensure that personnel are not directed or evacuated to zones where the chemical agent is present.

**b.** If the met towers are not working properly, meteorological information will be obtained from the National Weather Service located at the Pueblo Memorial Airport for manual insertion into the downwind prediction model. Meteorological data is also used to evaluate the risk of heat-related illness.

**c.** Hazard analyst will provide forecasted weather for the duration of the CAIRA event. It is expected that direction and speed of the wind will change. Forecasted weather will be monitored with updates provide to the OC Command Staff on an hourly basis. Forecasted weather will include hourly values of winds, atmospheric stability, temperature, precipitation, and severe weather warning for a 24-hour period.

**d.** If CAIRA operations take place during times of inclement weather (ie lightning storms) hazard analyst will monitor the lightning detection system and provide appropriate warning messages as necessary,

**e.** Weather updates consisting of current and forecasted weather are provided to the Ops Center staff every hour. Chief, Operations Section provides the information to the On-Scene Incident Commander .

**4. SERVICE SUPPORT.** Same as base plan.

**5. COMMAND AND SIGNAL**

**a. Command.** Same as base plan.

**b. Signal.** Same as base plan.

## ANNEX P (CONTAMINATION CONTROL) PCD CAIRA Plan

**ANNEX P (CONTAMINATION CONTROL) PCD CAIRA Plan**

**1. SITUATION.** Same as base plan.

**2. PURPOSE.** To provide guidance for contamination control while responding to a chemical event, to provide policy for limiting chemical hazards during a CAI, and to define a coordinated response to contain any hazards spills that occur.

**3. EXECUTION - HAZARD DETERMINATION**

**a.** During the initial assessment of a CAI, the specific chemicals released and the severity of the hazards must be determined. Chemical agent hazards can be identified either by a visual observation of containers, labels, records, etc., or by analytical methods. Additionally, visual observation should be used to detect releases of other materials, e.g., spills of gasoline, diesel fuel, oil, and decontamination materials used by the operating crew, before leaving the CAI site.

**b. Containment of Chemical Agent.**

(1) If possible, the point source of the chemical agent hazard should be contained as soon as possible (as long as personnel are not endangered).

(a) The initial response to a CAI is the responsibility of the operating crew at the site, if it is within their capabilities.

(b) In the absence of an operating crew at the site, the Decontamination Team will provide the first response to a CAI, in coordination with the OC and at the direction of the OSIC.

**(2) Remedial Action.** See Annex R**c. Decontamination Team**

(1) The Decontamination Team will be the first to enter the accident site area following evacuation of any operating crew members, unless there has been an explosion or there is the potential for explosion. In that case, the initial entry party will be an EOD Team.

(2) The Decontamination Team will mitigate the spread of hazards as rapidly as possible using the M12A1 Decontaminating Apparatus, plastic covers, spill pillows, and any other means available, with the goal of preventing hazards from (1) traveling beyond the installation boundary and (2) traveling beyond the confines of the CLA.

(3) The Decontamination Team will remove and containerize contaminated soils and/or solutions, as well as any other materials (PPE, equipment, etc.) resulting from the CAI. This includes not only hazardous materials released during the chemical event itself, but also hazardous materials released during attempts to mitigate the toxic chemical hazard(s) (e.g., decontaminants). Once hazardous materials are containerized, the Decontamination Team will transport the containers with the contaminated materials to the appropriate permitted igloo.

(4) The PCD Environmental Management Office must be notified when wastes are generated, and will perform the appropriate storage and labeling decision-making.

(5) For more detailed information on contamination control reference consult the most current versions of SOP# PU-0000-M-302.

## ANNEX P (CONTAMINATION CONTROL) PCD CAIRA PLAN

**d. Environmental Representative will:**

(1) Provide environmental assistance to assess the extent of contamination and determine estimated impact on public facilities, while assuring compliance with appropriate federal and state regulations.

(2) Identify materials used to concentrate, neutralize, collect, disperse, or remove hazardous substances which may be discharged during response to a CAI.

(3) Maintain a history of all decontaminating solutions or materials used in response to CAI, and advise the IRFC on efforts to use hazardous decontaminating solutions or materials during the removal process.

(4) Upon initiation of a chemical event, make necessary immediate and follow-on environmental reports. Reports will not be dispatched without concurrence with the OC Operations Officer and approval by the IRFC.

**4. SERVICE SUPPORT.** Same as base plan.

**5. COMMAND AND SIGNAL**

**a. Command.** Same as base plan.

**b. Signal.** Same as base plan.

## ANNEX Q (REMOVAL OPERATION) PCD CAIRA Plan

**ANNEX Q (REMOVAL OPERATIONS) PCD CAIRA Plan**

- 1. SITUATION.** Same as base plan.
- 2. PURPOSE.** To identify procedures to remove chemical agent and other hazardous materials resulting from an event involving the discharge of chemical agent to the environment, which may pose potential health threats to people or the environment.
- 3. EXECUTION**
  - a.** The CAIRA Plan provides guidance for overall response to a CAI.
  - b.** Decontamination of the site will be achieved by neutralizing or removing the agent and other hazardous materials involved in the CAI or were used in the response. Detailed decontamination procedures are set forth in the latest revision and change of PCD SOP# PU-0000-M-302, Emergency Response.
  - c.** All requirements of 40 CFR 300 will be fulfilled.
- 4. COORDINATION.** IAW the NCP, the OSC directs response/removal efforts and coordinates all other efforts at the scene of a release. The OSC for a chemical agent release on PCD is the PCD Commander or his designated representative.
- 5. SERVICE SUPPORT.** Same as base plan.
- 6. COMMAND AND SIGNAL.**
  - a. Command.** Same as base plan.
  - b. Signal.** Same as base plan.

## ANNEX R (REMEDIAL ACTION OPERATIONS) PCD CAIRA Plan

**ANNEX R (REMEDIAL ACTION OPERATIONS) PCD CAIRA Plan**

**1. SITUATION.** Same as base plan.

**2. PURPOSE.** To define and delineate remedial action requirements, following the neutralization and removal of chemical surety material and other hazardous materials released during or subsequent to the chemical event, to return the chemical accident/incident site to technically achievable and acceptable conditions. The CAIRA Recovery Plan is the guidance document for recovery operations.

**3. EXECUTION****a. Concept of Operations.**

(1) Remedial actions will be conducted only when necessary (e.g., if a long-term assessment and restoration effort is needed). It is important to understand that, so long as any hazardous materials remain in the environment, all attempts and actions to remove them are part of the “removal” phase and not part of remedial actions. Because of the very time-consuming administrative burdens that are part of the remedial action process, it is essential not to declare transition to remedial actions and recovery prematurely – that is, before removal has been completed. Doing so could increase risks to workers and the public by slowing the process of removing remaining hazards. Furthermore, it is possible that complete accomplishment of the removal process will render a remedial action phase unnecessary.

(2) The Remedial Project Manager (RPM), if appointed, is ultimately responsible for all remedial action/restoration operations. The DOD shall appoint an RPM responsible for taking all remedial actions pursuant to the National Contingency Plan (NCP). The RPM must secure and approve funding, approve projected remedial/corrective actions, negotiate with local authorities, submit notifications/reports to regulatory authorities and to the public, gain public involvement, and implement response plans. Additionally, the RPM coordinates, directs and reviews the work of other agencies and contractors to ensure compliance with the NCP, Record of Decision, consent decree administrative order and other agency plans applicable to the response.

(3) Most remedial action operations are not emergency situations that require immediate action. More likely, remedial operations will be long-term operations that could last from several months to several years.

(4) If the RPM is not the PCD Commander, the PCD Commander will cooperate with, and give support to, the RPM as much as possible.

(5) The U.S. Army Corps of Engineers will provide assistance to active Army installations that are conducting chemical agent clean-up operations.

**4. COORDINATION.** The PCD Commander may require technical assistance for remedial activities. This technical assistance may be provided by the United States Army Environmental Center (USAEC) or by contractors.

**5. SERVICE SUPPORT.** In an effort to comply with all federal, state, and local laws and regulations, cooperation between the military and other government agencies is imperative.

**a. All remedial action operations must be consistent with the NCP.**

## ANNEX R (REMEDIAL ACTION OPERATIONS) PCD CAIRA PLAN

**b.** Remedial action operations must also be coordinated with other government agencies including the USEPA, the State of Colorado, and local governmental entities.

**c.** The coordinating agencies will depend upon the classification of the remedial site. A determination will be made as to whether to conduct site restoration as a Response Action under CERCLA, 42 USC 9601 et. seq. or by agreement/permit (e.g., the Resource Conservation and Recovery Act (RCRA) permit). When a chemical release is strictly from a DOD facility, the DOD is the lead agency.

**d.** During the remedial action process, the PCD Environmental Management Office will maintain communication with the following:

- (1) CMA Risk Management and Environmental Office
- (2) USEPA
- (3) State of Colorado (Colorado Department of Public Health and Environment)
- (4) Pueblo County

**e.** The Environmental Management Office will advise the PCD Commander of proper procedures and steps to take during remedial action operations to comply with all environmental regulations including CERCLA, the Superfund Authorization and Reauthorization Act (SARA), the RCRA and the NCP.

## **6. COMMAND AND SIGNAL.**

**a. Command.** Same as base plan.

**b. Signal.** Same as base plan

## ANNEX S (CAIRA EXERCISES) PCD CAIRA Plan

**ANNEX S (CAIRA Exercises) PCD CAIRA Plan**

**1. SITUATION.** Same as base plan.

**2. PURPOSE.** To evaluate the ability of installation personnel to react to any portion of the PCD CAIRA Plan in order to determine weaknesses in the plan; identify the need for additional training, and/or maintenance or replacement of equipment; and reveal more efficient ways of responding to an actual emergency.

**3. EXECUTION****a. Concept of Operations.**

(1) In accordance with AR 50-6, a quarterly CAIRA exercise will be conducted. PCD will incorporate a major portion of the basic elements of the IRF, consistent with guidance contained in AR 200-1 in the field play for all quarterly exercises. At a minimum, two CAIRA exercises per year will be coordinated with state and local authorities and other appropriate off-installation emergency response authorities/agencies as identified in the plans, to evaluate emergency response capabilities. Exercises, in which external agencies and authorities decline to participate, will be documented to include the request(s) for participation and the corresponding responses. This documentation will be maintained for two years from the date of the specific CAIRA exercises(s). Furthermore, one of the quarterly CAIRA exercises may be the annual CSEPP exercise.

(2) The CSEPP exercises are conducted annually to test the entire emergency response effort (to include select off-installation emergency response capabilities), evaluate the interaction of all components, and demonstrate the ability of the surrounding community to respond to a CAI in concert with PCD procedures. During CSEPP exercises, agencies and jurisdictions participate at a level commensurate with the assessed risk. CSEPP exercise staff will assess on- and off-installation response procedures IAW established exercise objectives. If a CSEPP exercise is cancelled, the installation will substitute a comprehensive IRF CAIRA exercise evaluated by AMC, within 6 months of the date of the cancelled exercise.

(3) Quarterly exercises will be initiated/evaluated/terminated by the PCD Commander or a designated representative.

(4) All participants have the authority to stop or correct any actions of any player or situation that might adversely affect life, health, or property.

(5) Exercises will terminate immediately if an actual emergency situation develops. The PCD Commander, the OSIC, the Safety Officer, or the Chief, Operations Section may issue emergency termination orders.

(6) All CAIRA exercises will be documented in the written after action reports. These reports will include information obtained at "hot washes" conducted within a short period of time after the end of each exercise. The PCD Commander will ensure the development of programs to follow up on lessons learned documented in after action reports and ensure appropriate remedial actions are taken. A copy of each CAIRA exercise after action report will be forwarded to the U.S. Army Nuclear and Combating Weapons of Mass Destruction Agency (USANCA) (MONA-CWZ), 7150 Heller Loop, Suite 101, Springfield, VA 22150-3198. The PCD Directorate of Plans Training Mobilization and Security is responsible for developing the after

## ANNEX S (CAIRA EXERCISES) PCD CAIRA PLAN

action reports for the PCD Commander's signature and for continually tracking follow-up on lessons learned.

(7) An actual CAIRA event can be used as a substitute for a required CAIRA exercise as long as the event and the response are documented and corrective actions are taken as prescribed in paragraph 2f above.

(8) CAIRA exercises may be conducted on a more frequent basis than quarterly, at the discretion of the PCD Commander.

(9) The PCD Plans, Operations and Training Division is responsible for the planning, conducting, and the evaluation of all PCD CAIRA exercises, as well as the coordination of the annual CSEPP exercises. The division is also responsible for the recruitment and training of qualified PCD CAIRA exercise evaluators.

(10) PCD may activate the on-post outdoor warning devices for exercise purposes. Notification will be provided to Pueblo County via the Pueblo Emergency Notification Hotline. The PCD Commander or designee may request activation of on-post TAR units by Pueblo County during exercises. PCD will submit, via fax transmission, written confirmation of any request for TAR activation, including the specific message to be broadcast over the on-post TAR units.

**4. SERVICE SUPPORT.** Same as base plan.

**5. COMMAND AND SIGNAL.**

**a. Command.** Same as base plan.

**b. Signal.** Same as base plan.

## ANNEX T (CAIRA Exercises) PCD CAIRA Plan

**ANNEX T (FEDERAL ON-SCENE COORDINATOR) PCD CAIRA Plan**

**1. SITUATION.** Same as base plan.

**2. PURPOSE.**

**a.** The PCD Commander is the pre-designated lead federal agency (DOD) OSC charged to direct and coordinate all federal mitigation, containment, removal, and disposal efforts following a release of toxic chemical agents at PCD. The OSC will be assisted by a trained DOSC appointed by the OSC. For purposes of this plan, the DOSC fulfills the duties of the Incident Command System (ICS) Liaison Officer while operating from the PCD OC by maintaining close contact with other off-installation authorities during the response. (Note: The DOSC maintains frequent contact with the Off-Post Liaison Officer at the Pueblo County EOC.) The DOSC also assists the OSC by ensuring that all tasks in the On-Scene Coordinator/Deputy OSC OC Checklist are performed. The DOSC is delegated the authority to act on behalf of the OSC; however, the OSC remains responsible for the actions of the DOSC. This annex provides policy, direction, and procedural guidance to the OSC, the DOSC, and the IRF in support of OSC operations at the scene of a chemical event at PCD when the reportable quantity (RQ) of chemical agent (equal to or exceeding 1 pound) has been released. This plan remains in effect until completion of the response.

**b.** The PCD Commander/IRFC/OSC is the responsible party tasked to prevent, minimize, or mitigate damage to the public health or welfare or to the environment; to provide emergency medical services; to monitor and evaluate the release; to cleanup or remove hazardous materials from the environment; to dispose of the removed hazardous materials; and to take any other actions required by Army guidance or directed by the Army chain of command to respond to and remedy the results of a chemical event. The IRF Commander will also arrange for DOD support and augmentation for on-post response actions through the Army chain of command. Serving as the DoD OSC, the PCD Commander oversees the removal operations being taken by the IRF with regard to compliance with federal laws; and coordinates federal assistance (to include DOD support) to off-post jurisdictions under various authorities, including CERCLA. (Note: if a Remedial Project Manager is required, it may be the PCD Commander, a representative from the Army Corps of Engineers, or another person appointed by DOD.)

**c.** The PCD Commander is authorized by HQDA to represent the Department of the Army at the scene of the release with the authority to command and control all response elements. The PCD Commander also possesses the authority granted to the OSC to coordinate and direct federal response as cited in 40 CFR, Part 300 (National Oil and Hazardous Substances Pollution Contingency Plan), and AR 50-6 to accomplish his/her mission. The authorization will remain in effect until terminated by HQDA.

**3. EXECUTION**

**a. Concept of Operations.** The OSC mission is planned and executed in three phases:

**(1) Readiness Phase (Phase I).**

**(a)** This is the planning, organizing, training, and evaluation phase. The Plans, Operations and Training Division prepares and coordinates plans; establishes working

## ANNEX T (FEDERAL ON-SCENE COORDINATOR) PCD CAIRA Plan

relationships with friendly forces to facilitate the execution of plans; and trains, tests and evaluates the ability of the response force to support OSC activities.

(b) During the readiness phase, the PCD Commander will pre-designate a primary DOSC and an alternate. Nominations for these will be forwarded to HQ AMC G-3, through CMA Operations for approval.

(c) The PCD Commander, as the OSC, and each appointed Deputy OSC will be conversant with the requirements of the NCP. Furthermore, these individuals will avail themselves of OSC training if and when available.

(d) The OSC will furnish a copy of the PCD CAIRA Plan and the PCD Chemical Accident/Incident Recovery Plan to the EPA Region VIII RRT and the Colorado Department of Public Health and Environment whenever they are updated as these plans represent the OSC's response plans for his/her area of responsibility.

(e) Representatives of the OSC will offer to visit the RRT at least once every two years in order to ensure the members of the RRT are familiar with the mission of PCD and the basic tenants of the PCD CAIRA Plan and PCD CAIRA Recovery Plan.

**(2) Response Phase (Phase II).** (Note: the Response Phase is roughly equivalent to the "Removal" Phase IAW the NCP.) The Response Phase is the phase between when the chemical event occurs until the commencement of Phase III. The Response and Recovery Phases may overlap because many actions taken during the Response Phase may impact or carry over into the early Recovery Phase.

(a) Installation emergency response elements organized as an IRF will respond immediately to save lives, preserve health and safety, mitigate and remove hazards, and prevent further damage to the environment. The OC staff will begin to document response activities, while the OSC and DOSC prepare to coordinate federal assistance to the responding and the affected parties. The OSC and DOSC in Phase II are to take the following actions:

**1** Collect information about the release; e.g., source, cause, responsible parties, amount and location, direction and time of travel, pathways to human exposure, impact on human health and the environment, priorities for protecting human health and the environment, and costs.

**2** Notify the NRC immediately upon the release of the RQ, and inform and consult with the RRT.

**3** Notify federal, state and local officials, including the Colorado Governor.

**4** Notify DHS/FEMA of situations requiring evacuation or relocation, and the potential for disaster declarations.

**5** Notify and request assistance from OSHA and HHS, if needed.

**6** Notify trustees for natural resources of releases that threaten natural resources under their jurisdictions.

**7** Notify and consult with Department of the Interior (Fish and Wildlife) if endangered or threatened species are in danger.

**8** Coordinate and direct federal response operations in cooperation with state and local authorities, other federal agencies, and appropriate private organizations.

## ANNEX T (FEDERAL ON-SCENE COORDINATOR) PCD CAIRA Plan

**9** Address worker health and safety at the accident site, to include following the requirements of 29 CFR 1910.120.

**10** Keep public and private interests informed and consider their concerns. Serve as a source of support and information to the local emergency response community.

**11** Provide technical advice to ensure that responses are appropriate and effective.

**12** Facilitate access to extensive federal resources beyond that provided by DOD.

**13** Submit situation reports to the RRT during the course of the response. Submit a final complete report within one year, or when requested by the RRT. These reports will be drafted by the Army Legal Office supporting the OSC, with concurrent review by the Army Environmental Center supporting the OSC.

**14** Ensure that IRF personnel comply with environmental laws and regulations applicable to DOD.

**15** Develop and execute, in close coordination with federal, state and local agencies, detailed survey and monitoring plans to ensure that all hazards requiring removal are detected and/or their absence confirmed.

**16** Develop a site remedial operation plan (if necessary).

**17** Ensure all tasks in the On-Scene Coordinator/Deputy OSC OC Checklist are performed.

**(3) Recovery Phase (Phase III).** (Note: the Recovery Phase is roughly equivalent to the “Remedial Actions” Phase IAW the NCP.) After all hazards have been removed, actions begin to restore conditions at the site to a technically achievable and acceptable state that meets environmental regulatory requirements, and ensures the health and safety of the surrounding population. This is also known as the Restoration or Remediation Phase. The OSC expedites the withdrawal of military forces and civilian agencies when each supporting organization is no longer required, and the RPM takes charge of remedial actions (if required).

**(a) Short-term.** The OSC and staff begin discussions with off-post authorities on acceptable restoration standards, continue to assess and implement precautionary safety measures, and continually assess which organizations are necessary to support continued operations. The PCD Chemical Accident/Incident Recovery Plan will be implemented, as necessary.

**(b) Long-term.** Crisis management operations are terminated. Mission operations at PCD return to normal. The RPM with appropriate staff, reports on-site and the IRF Commander/OSC transitions the recovery actions. In most instances, the U.S. Army Corps of Engineers will conduct long term remedial action operations.

**b. Coordinating Instructions.** This plan is effective for planning purposes upon receipt and implementation, on order of the PCD Commander.

**(1)** The OSC or DOSC are authorized direct coordination with other response organizations.

**(2)** The OSC or DOSC will maintain communications with the AOC, when requested, during critical Response (Phase II) operations.

## ANNEX T (FEDERAL ON-SCENE COORDINATOR) PCD CAIRA Plan

## 4. ADMINISTRATION AND LOGISTICS.

**a. Operating Location.** Given the many variables involved, the PCD CAIRA Plan must assume that the OSC (or DOSC) will operate in conjunction with federal, state, and county authorities from a site that is away from hazardous areas and most convenient for the jurisdictions in greatest need of federal assistance.

**b. Installation Support.** The OSC mission on-post is supported primarily by IRF operations and support organizational elements, and other PCD staff as needed. Initially the OSC mission off-post is led by the DOSC, with sustainment (personnel and equipment) for off-post coordination activities obtained from PCD.

**c. Funds.** Requests for funds necessary to cover unprogrammed expenditures will be referred to CMA Headquarters. Reimbursement for OSC expenditures may not be immediately forthcoming; therefore, it is imperative to establish procedures for the Finance Section to capture all reimbursable expenses early on.

## 5. COMMAND AND SIGNAL

**a. Command.**

(1) The IRFC/OSC reports to higher headquarters through the normal chain of command (with the exception of the chemical events reports required by AR 50-6, which are sent directly to HQ DA and other CBERS recipients). The IRFC/OSC reports directly to the Army Deputy Chief of Staff G-3/5/7. The primary point of contact (POC) for G-3/5/7 is the Army Operations Center. The IRFC/OSC will keep the Director, CMA and the Commanding General, AMC informed of the situation by furnishing copies of all reports to the CMA Operations Center and the AMC Operations Center.”

(2) The OSC is authorized to call upon federal agencies (through the EPA Region VIII RRT) consistent with the agencies’ capabilities and authorities during response planning and implementation to provide assistance in their respective areas of expertise, as described in 40 CFR 300.170 and 40 CFR 300.175,.

**b. Signal.** The OSC will use PCD assets for communications.

ANNEX U (CHEMICAL MATERIALS ACTIVITY SUPPORT AND TRANSITION) PCD  
CAIRA Plan

**ANNEX U (CHEMICAL MATERIALS ACTIVITY SUPPORT AND TRANSITION) PCD  
CAIRA Plan**

**1. SITUATION.** Same as base plan.

**2. PURPOSE.** To ensure the incoming OSC and staff receive initial and continuous support, within PCD's capabilities, from initial request for deployment of CMA support through the duration of CAI response and site restoration.

**3. PREPAREDNESS.**

**a.** PCD will pre-designate a Deputy OSC (DOSC) and an alternate. The pre-designated DOSC will assist the IRFC/OSC until the CMA Support team arrives and assumes command. This same individual will either continue to perform the duties of DOSC for the CMA Support team and will assure continuity with established relationships with off-installation federal, state and local authorities. The DOSC will be a senior DA civilian.

**b.** It is expected that personnel on the CMA support roster arrive with personal items sufficient to meet their needs for three days.

**c.** PCD will preposition contingency stocks for CAIRA operations. (Note: The same stocks along with operators or material handling personnel can be called forward and used for CAIRA operations at other installation, if needed.)

**d.** The Push Package of critical items stored and maintained at Blue Grass Chemical Activity can be called forward by PCD, upon request, to support CAIRA operations.

**e.** PCD planners, during the readiness phase, will identify facilities (office space), equipment, personnel, and administrative materials that are within PCD's existing capability to provide and document what is available to support the CMA Support team and staff.

**4. EXECUTION.**

**a.** The IRFC will continue to perform the duties of the OSC even after the CMA Support team arrives. .

**b.** The IRFC will take immediate action to initiate arrangements in conjunction with the PCD and CMA Support Team Logistics Officers, for billeting, messing, and sanitation facilities at or near PCD. This action, in support of CMA, will be initiated immediately upon the IRF requesting the CMA Support Team, or higher headquarters deciding to deploy the support team. The extent and specific requirements for these facilities will depend primarily on the circumstances of the CAI, including location, environmental conditions, personnel involved, and expected duration of response operations. .

**c.** When the decision to deploy the CMA Support Team has been made, the IRFC/OSC will initiate coordination with civilian authorities in the jurisdictions affected by the CAI.).

**d.** The IRFC will use Military Standard Requisitioning and Issue Procedures (MILSTRIP) as feasible, supplemented by local service contracts as required.

**e.** Other responsibilities. Upon a chemical release requiring deployment of the CMA Support Team, the IRFC will:

ANNEX U (CHEMICAL MATERIALS ACTIVITY SUPPORT AND TRANSITION) PCD  
CAIRA Plan

**(1)** Ensure that an initial CER and other critical CAI information (see Appendix I to this Annex) are ready for the transition brief. Information should be available in both hard copy and in a Microsoft PowerPoint slide show for presentation to groups of incoming CMA staff.

**(2)** Provide updated information as it becomes available to local and state authorities, AOC, NRC, AMC, and CMA Operations Center as appropriate, until the CMA designate arrives and receives the local transition brief.

**(3)** Provide initial and continuous support to CMA upon its arrival at the site in coordination with the CMA Logistics Officer. Provide, if available and required, the following assets and facilities to the CMA Support Team:

- (a)** Administrative and logistics personnel
- (b)** Work areas and meeting facilities (See Appendix II to this Annex)
- (c)** Office equipment (copiers, computers, printers, fax machines, etc)
- (d)** Facilities required for handling of classified information
- (e)** Messing and billeting facilities
- (f)** Potable and/or non-potable water
- (g)** Sanitation facilities
- (h)** Laundry facilities
- (i)** Transportation assets
- (j)** Petroleum, oil and lubricants
- (k)** Maintenance support
- (l)** Heavy construction equipment
- (m)** Electrical power
- (n)** Chemical protective clothing
- (o)** Medical services
- (p)** Packaging/shipping materials for munitions and contaminated waste
- (q)** JIC logistic support

**(4)** Document all CAI-related costs.

**(5)** Document all actions taken in response to the chemical release.

**(6)** Provide support for the transition from the IRF to the CMA Support Team.

**(7)** Develop transition briefings for the incoming response force personnel. (See Appendix III below for specific guidance)

**(8)** Provide pertinent documents to the CMA Support team, such as copies of the PCD CAIRA Plan and the PCD Chemical Accident/Incident Recovery Plan, the IRF staff directory, installation and area maps, and other local information.

ANNEX U (CHEMICAL MATERIALS ACTIVITY SUPPORT AND TRANSITION) PCD  
CAIRA Plan

(9) Dispatch personnel to the airport, at which the majority of support team responders will arrive, in order to provide information on safe approach routes around areas affected by the CAI, directions to the CAI site and billets, etc.

(10) Establish an in-processing center for the arriving response personnel away from the CAI site in order to reduce congestion.

(11) Provide financial support for travel advances (if necessary).

5. **SERVICE SUPPORT.** Same as base plan.

6. **COMMAND AND SIGNAL.**

a. **Command.** Same as base plan.

b. **Signal.** Same as base plan.

7. **APPENDICES:**

**APPENDIX I: SUPPLEMENTAL INITIAL INFORMATION**

**APPENDIX II: WORK AREAS**

**APPENDIX III: TRANSITION BRIEFINGS**

APPENDIX I (SUPPLEMENTAL INITIAL INFORMATION) TO ANNEX U (CHEMICAL MATERIALS ACTIVITY SUPPORT AND TRANSITION) TO PCD CAIRA Plan

**APPENDIX I (SUPPLEMENTAL INITIAL INFORMATION) TO ANNEX U (CMA Support Team SUPPORT AND TRANSITION) TO PCD CAIRA PLAN**

In addition to information contained in the initial Chemical Event Report, the IRFC will provide the following information and updates to the Army Operations Center and the AMC and CMA Operations Centers as available and until the CMA Support team is established:

- Nearest Army installation, largest nearby town, and Universal Transverse Mercator (UTM) grid coordinates of both.
- Status of next-of-kin notifications of injured and deceased.
- Status and extent of vapor and liquid hazards on-and-off post, both predicted and actual (if known).
- Property damage on and off PCD.
- Personnel, supplies and equipment, other than organic, to the IRF who have arrived or are enroute.
- Status of news media interest and requirements.
- State and local authorities advised of possible contamination hazards and precautions, include PARs signed.
- Status and extent of surrounding area evacuations.
- Any potential threats to the installation/CAI site.
- Request for, and establishment of restricted airspace to FAA.
- Status of air and ground monitoring.
- Security of the CAI site.
- Actions take to treat, monitor, decontaminate, identify and evacuate casualties.
- Detailed weather forecast.
- Status of communications with hot line to the AOC.
- DOD and non-DOD teams/agencies requested, and their estimated time of arrival (ETA).
- News releases, if any and their outcome.
  - Text of news release, and /or substance of responses to news media queries.
  - Information provided to local mayor(s), county officials and state governor(s).
- Impact of the CAI on the installation's mission capability.
- Memorandum of Understanding (MOU) and/or Memorandum of Agreement (MOA) enacted with local fire, police, state law enforcement, hospitals, or other civil agencies.
- Current status of all outgoing voice and record traffic. Orders disseminated if any to minimize outgoing voice and record traffic.

APPENDIX I (SUPPLEMENTAL INITIAL INFORMATION) TO ANNEX U (CHEMICAL MATERIALS ACTIVITY SUPPORT AND TRANSITION) TO PCD CAIRA Plan

- Status of claims process to include:
  - Establishment of claims center, if any.
  - Implementation of an emergency claims plan that includes request for claims approval authority, the authority to make advanced emergency partial payments and their amounts.
- On-and-off post schematic of boundaries for areas of concern.

**APPENDIX II (WORK AREAS) TO ANNEX U (CHEMICAL MATERIALS ACTIVITY SUPPORT AND TRANSITION) TO PCD CAIRA Plan****APPENDIX II (WORK AREAS) TO ANNEX U (CMA Support Team SUPPORT AND TRANSITION) TO PCD CAIRA PLAN**

The following work areas should be available for the CMA Support Team. They should be sufficient in size to accommodate one shift of the listed responders, and equipped to support their mission functions. The areas are in addition to off-post work areas such as the JIC and claims centers. If staff members are better able to achieve continuity of their operations in their own facilities or post, especially if that enhances efficiency, they should do so. For example, procurement, transportation, security support, personnel, comptroller, engineer, and logistics support functions can continue to be performed in the normal location, if that facility is available. In addition to the consolidated work areas listed below, accommodations must be provided for specialized response teams in appropriate locations, e.g. the MEDCOM Augmentation Team can work in the PCD Occupational Health Clinic if available.

**Command Suite-Bldg 1**

- OSC
- Deputy OSC
- Secretary
- Aide-de-Camp

**Personnel Staff-Bldg 2, Ops Center**

- PCD Commander
- Safety Officer
- Environmental Officer
- Protocol Officer
- Surety Officer

**Public Affairs- Bldg 2, Ops Center**

- Public Affairs Officer
- Public Affairs Augmentees
- Photographers
- Videographers

**Operations Section-Bldg 2, Ops Center**

- Operations Section Chief
- Senior EOD Officer
- Chief Security Officer
- Intelligence Officer
- Evacuation Coordinator
- Liaison Officer

**Planning Section-Bldg 2, Ops Center**

- Planning Section Chief
- Environmental Officer
- Hazard Analyst

APPENDIX II (WORK AREAS) TO ANNEX U (CHEMICAL MATERIALS ACTIVITY  
SUPPORT AND TRANSITION) TO PCD CAIRA Plan

Meteorologists

**Logistics Section-Bldg 2, Ops Center**

Logistics Section Chief  
Logistics Officer  
Human Resource  
Information Management

**Finance and Admin Section-Bldg 1**

Finance and Admin Section Chief  
Procurement Officer  
Personnel Officer

**Building 3**

Facility Engineer  
Historian

**PCD Health Clinic**

CMA Surgeon  
Medical Augmentees

APPENDIX III (TRANSITION BRIEFING) TO ANNEX U (CHEMICAL MATERIALS  
ACTIVITY SUPPORT AND TRANSITION) TO PCD CAIRA Plan

**APPENDIX III (TRANSITION BRIEFING) TO ANNEX U ( CMA Support Team  
SUPPORT AND TRANSITION) TO PCD CAIRA PLAN**

**1. SITUATION.** Same as base plan.

**2. PURPOSE.** To provide for a transition process to integrate the IRF and the CMA Support Team into a single, unified response force.

**3. EXECUTION.**

The transition process begins with the arrival of the Support Team Advance Party and continues through the arrival of follow-on staff and the assumption of command and control of the CAIRA mission by the Support Team. The responders reporting to the CAI site must know the who, what, where, when and how of the CAI occurrence in greater detail than given in initial reports. They will need to know:

**a.** The CAI effects on personnel and property both on-and-off post (including environmental impact) and what PARs were made.

**b.** The existing capability of on-and-off post response forces to cope with the response effort.

**c.** The public affairs impact and ongoing efforts to inform the public and maintain confidence in the Army's ability to respond.

**d.** The status of response actions.

**e.** Anticipated future significant events.

**f.** What reports have been made (i.e. who has been told what and when).

**4. TRANSITION ACTIVITIES.** Variation in transition participants and the relationship between them may be necessary to accommodate the preferences of the Support Team. The transition process occurs essentially within four levels of participants. Each has a need for different information or details of information.

**a. IRFC to Support Team.** A private conference between the two Commanders will likely take place. The Support Team Lead will inform the IRFC of what their relationship will be and the IRFC will provide an overview of the response status and will briefly cover:

(1) Who has been notified, when notification occurred, and what information was contained in the notifications.

(2) The links established between IRFC and higher command levels.

(3) Summary of IRFC relationships with off-post officials and news media.

(4) The mechanics of integration of the IRF into Support Team organizational structure.

**b. IRF Staff to Support Team .** This presentation fills in details from IRFC's overview to the Support Team Lead /OSC, and provides an overview to those Support Team staff members present. The IRF staff will brief the Support Team on the relationship between state and local emergency response efforts and the federal response efforts directly by the IRFC as OSC; and

## APPENDIX III (TRANSITION BRIEFING) TO ANNEX U (CHEMICAL MATERIALS ACTIVITY SUPPORT AND TRANSITION) TO PCD CAIRA Plan

will describe the procedures in place to coordinate the efforts of the different levels of government during the emergency. The briefings must also include details on the location, staff, and communications capabilities of the facilities where these activities take place. The following should be briefed to ensure the Support Team is able to address news media concerns immediately.

- (1) Status of casualties
- (2) Status of chemical agents and munitions involved in the CAI (including inventory and accountability).
- (3) Status of vapor or liquid hazards on-and-off post.
- (4) Status of personnel and equipment, other than organic, to the IRF who have arrived or are en route.
- (5) Status of news media interest and needs.

**c. IRF Staff to Support Team Staff.** These one-on-one encounters enable IRF counterparts to bring Support Team Staff members up to working speed. However, since Team staff members may arrive on-site over the span of a few days, this procedure may recur several times, each time with updated information. The routine will include:

- (1) Explaining specifics of the functional area(s) in greater detail, to include specific features of the local CAIRA plan, and agreements with state and local jurisdictions.
- (2) Orienting of personnel on locations of building/facilities, assigned work areas and supplies.
- (3) Demonstrations of communication and media equipment.

**d. CMA Staff with Off-Post Officials.** While the /OSC and key staff have assumed responsibility for response actions, it was the IRF that established working relationships with the federal, state, county, and other local officials. It is essential that these relationships be maintained and employed to ensure the safety of the public and to coordinate response actions under the National Contingency Plan. During the first few days of CMA Support operations, the /OSC and selected staff members will meet with off-post officials to conduct personal introductions, discuss responsibilities, working relationships, and processes.

### 4. TRANSITION TOPICS

The following are recommended topics for discussion during initial interface of responders already on-site with arriving responders. This information should be automated for briefing purposes and maintained in a current status. Note that time is limited. **Only pertinent topics should be included**, and then, only if the information is correct.

#### CAI Initiation

- When (time/date) and where (specific location of site)
- What (events leading up to, during, and following the CAI)
- Quantity and types of agents/munitions involved
- How and what failures and who is responsible, if known

## APPENDIX III (TRANSITION BRIEFING) TO ANNEX U (CHEMICAL MATERIALS ACTIVITY SUPPORT AND TRANSITION) TO PCD CAIRA Plan

### Casualties

- Dead/Injured/Missing
- Current locations of dead or injured
- Identity and involvement of local/state Coroner in response operations
- Notification of next-of-kin status
- Chaplain support status

### Site Layout (Display maps)

- CAI site and entire installation
- Surrounding communities
- Assigned working areas
- Locations of critical functions:
  - Hotline
  - On Scene Incident Commander Command Room
  - Installation OC
  - State/County/local EOC's
  - JIC
  - Claims Office(s)
  - Billets
  - Relocation Center
  - Defense-controlled areas and NDAs, if any
  - Joint Field Office
  - Manned Traffic Control Points

### Hazards Assessment

- Methods/equipment used (adequacy, reliability/accuracy)
- Types of hazards present
- Agent contamination:
  - Current computer prediction models and surveys
  - Survey efforts status
  - Predictions for future
- Meteorology:
  - Equipment and personnel available for support and current conditions/weather forecast
  - Current and predicted weather that might impact on field operations (excessive heat, cold, wind, lightning, or precipitation)
  - Environmental impact:
    - Environmental damage
    - Threats to plants, animals, livestock and agriculture
    - Endangered species present in area

### Safety

- Site specific orientation of conditions for any responders assigned to work directly with toxic chemicals.
- Status of agent/munitions involved in CAI:

APPENDIX III (TRANSITION BRIEFING) TO ANNEX U (CHEMICAL MATERIALS  
ACTIVITY SUPPORT AND TRANSITION) TO PCD CAIRA Plan

- Render safe/Containerization.
- Accountability/Inventory
- Areas of known contamination/hazards
- Protective clothing/equipment for all responders
- Removal actions taken:
  - Runoff control employed
  - Evaporation control employed
  - Status of decontamination efforts
  - Proposed schedule of operations
- Hazardous waste disposal:
  - Regulatory requirements/Options available
  - Current waste material storage area
  - Supplies needed
- Temporary or permanent storage requirements
- Personnel currently on-site and shortages
- Capability to conduct field operations (day/night/heat/cold)
- Availability of personnel to maintain 24-hour operations:
  - Short term
  - Long term
- Current work schedule/shift change plan
- Areas that are inoperable due to CAI
- Airspace restrictions (how far up and out)

Security

- Current Threat Situation
- Civil Support Operations
- OPSEC requirements
- Traffic Plan (control posts, roadblocks, restricted routes/areas)
- Access Control Procedures:
  - Personnel/equipment status
- Federal, state, local police support:
  - Augmentation requested/required
  - NDA required/established

Medical Support

- Ability of nearest Army medical facility to respond
- Ability of off-post (military or civil) medical facilities to respond
- Need for further augmentation (and type needed)

Communications

- Ability to communicate with on-and-off post areas and higher HQ

## APPENDIX III (TRANSITION BRIEFING) TO ANNEX U (CHEMICAL MATERIALS ACTIVITY SUPPORT AND TRANSITION) TO PCD CAIRA Plan

### Augmentation Team

- Requested personnel and teams, and estimated times of arrival
- Capabilities upon arrival
- Ability to logistically support upon arrival at site

### Equipment/Supplies

- Shortages, current/projected (especially protective clothing)
- Equipment/supplies on hand:
  - Appropriateness for tasks to be performed
  - Adequate to complete tasks correctly
- Capability to launder, test, and maintain PPE

### Legal

- Liability for the chemical event (if known)
- Obligations to deceased, injured, and missing persons
- Environmental damage
- Hazardous waste disposal
- Documentation
- Control and release of chemical event information
- Response actions
- Access control and use of force by security personnel
- Justification for, and operation of, National Defense Area
- Legal review of reports
- DoD vs. DOJ authority for response to criminal/terrorism activity
- Implications of investigations
- Application of criminal statutes

### Claims

- Real property damaged/contaminated (privately owned)
- Claims team augmentation status
- Establishment of Claims Center
- Known CAI-related liability
- Ability to pay claimants expeditiously

### Off-post Response Activity

- Protective action recommendation (PAR):
  - Recommendations made (and rationale)
  - Recommendations considered, but not yet made
  - Off-post actions in response to PAR
  - Status of evacuations (on-post and off-post)
- Federal/state/local officials:
  - Names/title/responsibilities (already in contact with IRF or scheduled to visit on-site)
  - Assessment of working relationships between installation and area federal/state/county/local officials

APPENDIX III (TRANSITION BRIEFING) TO ANNEX U (CHEMICAL MATERIALS  
ACTIVITY SUPPORT AND TRANSITION) TO PCD CAIRA Plan

Assessment of state/county/local response to off-post situation  
Inquiries from, and reports to Congressional officials  
Requests received from Colorado State Governor  
Requests from state/county/local officials for assistance:  
Actions taken/actions being contemplated  
Requests received, not yet considered  
Requests refused (and rationale)

Public Affairs

News media inquiries made so far  
Army release made so far  
Releases made by others (e.g., other than DOD)  
News media reports so far  
Schedule of proposed/anticipated news media events  
Working relationship between installation and local news media  
Establishment of a link with Office of the Secretary of the Army for Public Affairs  
(SAPA)  
Guidance received thus far from SAPA

Hazardous Waste Disposal

Temporary or permanent storage requirements

Reports

Reports prepared and where transmitted (e.g., NRC, AOC)  
Hard copies of all reports furnished to CMA Support Team and staff  
Reports that are due/overdue

Investigations

Underway/anticipated (e.g., safety, aircraft, claims)  
Investigation teams on-site and due-in

## ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

**ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan**

**1. SITUATION.** Same as base plan.

**2. PURPOSE.** This Annex establishes guidelines and responsibilities to be followed in response to a chemical accident or incident (CAI), occurring at the Pueblo Chemical Agent Destruction Pilot Plant (PCAPP) and PCAPP EDS. This Annex applies to all government and contractor employees at the PCAPP and PCAPP EDS sites and all visitors unless stated otherwise. For all PCAPP and PCAPP EDS chemical accidents or incidents, the PCD Commander is the Installation Response Force (IRF) Commander who provides overall command and control of the CAIRA emergency IAW guidelines set forth in AR 50-6. See Annex V-1 for PCAPP EDS information.

**a.** The PCAPP is a Resource Conservation and Recovery Act (RCRA) permitted treatment and disposal facility designed to dispose of chemical agent munitions stored by Pueblo Chemical Depot (PCD). Chemical munitions disposed of at PCAPP contain the blister agent HD and HT.

**b.** During PCAPP systemization, operations and facility closure, the PCAPP Emergency Response Organization (ERO) will respond to emergency conditions resulting from plant upset conditions and other accident/incidents. The PCAPP ERO is composed of distinct and coordinated emergency positions, with support from PCAPP Crisis Management Team (PCMT). These positions and relationships are defined in the PCAPP Emergency Response Plan. The storage and disposal of the chemical munitions are also regulated by Army chemical surety guidelines and reporting procedures for chemical accidents and incidents with the potential to affect the safety and health of personnel, harm the environment, or damage facilities and equipment.

**c.** There may be other hazards associated with CAIs. These are the potential hazards that may have caused the CAI or that may have resulted during the CAI. These hazard conditions include fire, explosions, and structural hazards in or about the incident location. A chemical release or exposure incident should be considered an indicator of a potential multi-hazard event until proven otherwise and the following actions taken:

(1) Ensure the health and safety of personnel within and near PCAPP and protect the environment.

(2) Provide for comprehensive investigation, evaluation, and reporting of all accidents or incidents involving chemical agents.

(3) Minimize damage to facilities and equipment.

(4) Implement responsive and effective procedures to eliminate and remove the source of the chemical event.

(5) Prevent loss, theft, or seizure of chemical agents or munitions.

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d. During a CAI, establish effective response capabilities to the phases of a CAI:

(1) The response phase involves ERO notification, activation, and response to the CAI. The goal of the response is for the ERO to effectively respond to the CAI taking necessary actions to gain control of the CAI.

(2) During the recovery phase, the ERO initiates deliberate, well-planned, and coordinated actions to restore conditions at and in the vicinity of the CAI site to a technically feasible and acceptable state.

### 3. EXECUTION.

a. For all PCAPP chemical accidents or incidents, the PCD Commander is the IRF Commander who provides overall command and control of all PCAPP chemical accidents or incidents.

b. Emergency Response Organization. The PCAPP Emergency Response Organization (ERO) consists of the following:

(1) **PCAPP Emergency Coordinator (EC):** The PCAPP EC is responsible for managing the PCAPP ERO, implementing emergency response activities, and providing PCAPP interface with the PCD Operations Center (OC). The PCAPP EC will report directly to the IRF Commander. The PCAPP EC may delegate responsibilities during a contingency event to the PCAPP Scene Commander, Control Room (CON) Supervisor, and/or other CON personnel. Direction from the CON during a contingency event is the result of PCAPP EC direction or delegation.

(2) **PCAPP Scene Commander (SC):** The PCAPP SC will report directly to the PCAPP EC and acts under his direction. The PCAPP SC will be responsible for the following on-scene (plant) duties: managing the incident, monitoring personnel accountability, and implementing emergency response activities. The PCAPP SC will be either an on-shift PCAPP Area Supervisor or a PCAPP Control Room (CON) Supervisor. Designation of the primary and alternate PCAPP SC will be made daily as part of the Limiting Conditions of Operations (LCOs). The PCAPP SC will convey information between the PCAPP CON and the emergency response team leaders described below.

(a) **PCAPP Decontamination (Decon) Team Leader** – The PCAPP Decon Team Leader will report to the PCAPP SC and will deploy the PCAPP Decon Team, manage setup and operation of the on-scene personnel decontamination station, and monitor personnel for signs of illness and exposure. The PCAPP Decon Team Leader will establish a decontamination line upwind from an airborne chemical agent incident. Wind direction indicators will be located throughout the PCAPP grounds to determine the upwind area.

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(b) PCAPP Medical Response Team Leader – The PCAPP Medical Response Team Leader will coordinate with the PCAPP SC and will provide treatment to injured personnel, transport of injured personnel to appropriate medical facilities, evaluate personnel for signs of illness or agent exposure, and provide appropriate medical treatment.

(c) PCAPP Hazmat Team Leader – The PCAPP Hazmat Team Leader will report to the PCAPP SC and will establish and manage spill containment and cleanup.

(3) **PCAPP Medical Response Team:** The PCAPP Medical Response Team Leader will advise the PCAPP Scene Commander and will coordinate the emergency medical response at the PCAPP. Several mutual aid agreements are in place to provide supplementary medical services, if necessary.

(4) **Control Room Supervisor (CRS):** The PCAPP CRS will report directly to the PCAPP EC and will be responsible for monitoring and controlling plant processes, systems, and equipment. During a contingency event, the CRS can also serve as scene commander. The PCAPP CRS also ensures full accountability of all personnel. If, during a contingency event, the PCAPP CRS is not in the CON, a Control Room Operator will fill this position. Additionally, the PCAPP CRS oversees emergency response activities of the following PCAPP ERO members:

(a) PCAPP Operators -- The PCAPP outside operators and PCAPP CON operators will report to the PCAPP CRS and will assist in the evacuation of personnel from the hazard zone. As directed, they also will coordinate first responder efforts, establish a hazard zone perimeter, control the spread of any contamination, and support post incident cleanup activities.

(b) PCAPP Maintenance Supervisor -- The PCAPP Maintenance Supervisor will report to the PCAPP CRS, coordinates plant system and facility maintenance in the event of an emergency, and ensures personnel and material support is available.

(c) PCAPP Area Wardens -- During a CAI emergency incident, designated employees will report to the PCAPP CRS to serve as Area Wardens. They will manage accountability of personnel reporting to the emergency assembly areas.

(5) **PCAPP Environmental Shift Representative (ESR):** The PCAPP ESR will be on scene with the PCAPP SC and is responsible for providing compliance guidance to the PCAPP SC. The PCAPP SC will provide the PCAPP EC with guidance on maintaining compliance with the environmental requirements. The PCAPP ESR may direct specific operating processes and even direct the shutdown or cessation of facility operations if the activity poses an imminent environmental hazard. In all cases, the PCAPP EC must concur and will ensure that the request is both safe and within the operating parameters of the facility.

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**(6) PCAPP-Field Office (FO) Government Shift Representative:** The PCAPP-Field Office (FO) Government Shift Representative will provide technical advice to the PCAPP EC and notify PCAPP-FO management of contingency events. The PCAPP-FO Shift Representative may direct specific operating processes and even the shutdown or cessation of facility operations, if instructed to do so by the PCAPP Site Project Manager, or designee. In all cases, the PCAPP EC must concur and will ensure that the request is both safe and within the operating parameters of the facility.

**(7) PCAPP Safety Shift Representative:** The PCAPP Safety Shift Representative, on scene with the PCAPP SC, is responsible for providing guidance to the PCAPP SC. The PCAPP SC will advise the PCAPP EC and will monitor personnel safety during emergency response efforts, which includes consulting with operations staff on the development of mitigation activities to ensure personnel safety. The PCAPP Safety Shift Representative may direct specific operating processes and even the shutdown or cessation of facility operations if employees are exposed to an imminent safety or health hazard. In all cases, the PCAPP EC must concur and will ensure that the request is both safe and within the operating parameters of the facility.

**(8) PCAPP Shift Manager:** The PCAPP Shift Manager, in coordination with, or acting as, the PCAPP EC is responsible for directing PCAPP emergency response operations from a location where he/she can best command and control those operations. In most cases, this will be the PCAPP CON located in the Control Support Building (CSB). During PCAPP CAIs, the Shift Manager will:

- (a) Ensure notification of CAIRA emergency within 5 (five) minutes to the PCD OC.
- (b) Ensure the PCAPP ERO is activated to respond to CAIRA emergency.
- (c) Establish and maintain a command post (Control Room/CON) to control CAIRA operations.
- (d) Evaluate CAI and develop a course of action and emergency response action plan.
- (e) Determine what PCAPP emergency response resources are required to effectively respond to the CAIRA emergency.
- (f) Determine if external support is required to augment the PCAPP ERO during a PCAPP CAI.
- (g) Request external resources from PCD if PCAPP resources are insufficient to respond effectively.
- (h) Establish the chemical agent hazard area.
- (i) Develop a plan to control chemical agent contamination.
- (j) Ensure emergency response operations are executed to the maximum extent possible within chemical surety guidelines established in AR 50-6.

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(k) Maintain continuous communication with the PCD OC and IRF Commander.

**(9) Facility/Area Managers and Shift Team Leaders:** Facility/Area Managers and Shift Team Leaders will also assist the PCAPP EC during CAIs by executing protective action directives. Facility/Area Managers and Shift Team Leaders will ensure facility/areas are swept, the directed protective action is executed, and personnel accountability is determined and reported to the CON.

**(10) PCAPP Area Supervisor:** The PCAPP Area Supervisor will become the Scene Commander in the case of an emergency event. Once the PCAPP EC activates emergency responders, the Scene Commander reports directly to the scene but outside and upwind of the hazard zone perimeter, takes control of the activities of first responders, and coordinates the actions of all response teams at the event location. During PCAPP CAIs, the Scene Commander will:

(a) Control and direct all PCAPP emergency response teams.

(b) Integrate PCD and PCAPP emergency response teams in PCAPP emergency response operations as required.

(c) Establish and secure a restricted hazard area around the CAI site with a radius of 50 meters if there is no explosive potential.

(d) Establish staging area(s) near to but outside and upwind of the hazard area.

(e) Focus immediate emergency response effort on saving lives and containing the chemical agent hazard.

(f) Determine the character, exact source, and amount of chemical agent released at the CAI site and report said information to the PCAPP EC.

(g) Ensure the contaminated area is surveyed, marked, and controlled.

(h) Ensure the hazard area is evacuated and establish evacuation perimeter control.

(i) Brief emergency response team leaders on response objectives and tasks.

(j) Ensure emergency response teams respond with the proper level of personnel protective equipment (PPE).

(k) Establish chemical personnel decontamination station (PDS) location in conjunction with the PCAPP HAZMAT Team Leader.

(l) Make requests for additional emergency response teams to the PCAPP EC as required.

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(m) Ensure chemical agent is recovered and accounted for.

(n) Ensure the CAI site is decontaminated.

(o) Preserve the CAI site to the maximum extent possible for accident investigation efforts.

**(11) PCAPP Control Room Operators (CRO):** During emergency operations, the PCAPP CRS directs operations in the Control Room. Control Room Operators (CRO) will support the EC and CRS as they carry out their responsibilities. During CAIs, the CRS or CROs will:

(a) Notify PCAPP personnel and the PCD OC.

(b) Monitor and control plant processes, systems, and equipment.

(c) Ensure communications are established and maintained with operators, maintenance personnel, OSC, PCAPP Incident Management Team (IMT) (if activated), and the PCD OC.

(d) Request PCD OC use of WebPuff hazard analyses of the appropriate Emergency Response Planning Scenarios (ERPS) to determine initial chemical hazard area.

(e) Coordinate ongoing plant operational and maintenance actions that impact emergency response operations with the Shift Superintendent or as Acting On-Scene Commander.

**(12) Emergency Response Teams:** PCAPP emergency responders are comprised of Bechtel Pueblo Team (BPT) with the training and expertise to quickly respond to the scene of an event, assess the situation, and promptly mitigate the emergency conditions. The emergency response special teams that would provide response support during a CAI are the Hazmat Team, Decon Team, Rescue Team, and Paramedics Team.

**(13) PCAPP Incident Management Team (PIMT):** The PCAPP Incident Management Team (PIMT) is a group of PCAPP-based personnel (appointed by the BPT Project Manager) who work together to provide additional support to the IRF Commander, EC, and ERO, when needed. Upon a request being received from the EC the PIMT Chair (or designee) will immediately notify the PIMT, which will convene at the Personnel Support Building (PSB), Copper Mountain conference room, provided it is available for occupancy; otherwise, the PIMT will assemble in an available conference room or classroom.

The PIMT consists, as a minimum, of the following persons:

- |                                 |        |
|---------------------------------|--------|
| • Project Manager               | Chair  |
| • Community Outreach Member     | Member |
| • Procurement Manager           | Member |
| • PCAPP FO Gov't Representative | Member |

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The PIMT is responsible for providing support to the ERO during an emergency event involving PCAPP. During an event, the PIMT takes direction from the PIMT chairperson and integrates its activities with the activities of the PCAPP EC and the PCD OC. The PIMT, by using available management personnel to accomplish emergency response support activities, is ultimately responsible for:

- Directing the BPT as needed to support the EC
- Establishing and maintaining communications with corporate management
- Providing senior level interface with the ACWA and the PCD.

**(14) Public Affairs (PA):** Public Affairs will be managed and controlled by the IRF Commander during a CAI. Public Affairs will be coordinated, focused, “single-voice” effort using the collective public affairs and information resources available from PCD and PCAPP.

**4. SERVICE SUPPORT.** In the event of a CAI at PCAPP, the following will apply:

**a.** Prior to conducting routine operations, PCD OC Hazard Analysts will evaluate ERPS applicable to the specific demilitarization operation. Prior to each munition campaign, the PCD OC will update the hazard analysis program with the munitions type/configuration, agent type (HD/HT), and other source data for the associated ERPS. The ERPS-predicted hazards, affected by current meteorological conditions will be monitored continuously in the PCD OC. The PCD OC will use these ERPS and associated hazard predictions as they use maximum credible events (MCEs) for storage operations. This provides an effective tool for the PCD OC to develop responsive protective action recommendations (PARs) to local Emergency Medical Agencies (EMAs) within the ten-minute standard.

**(1)** At PCD, CAIs can occur during the storage, transportation, or demilitarization of chemical munitions. In each case, the PCD OC must be notified of the emergency within 5 (five) minutes. The PCD OC will then make notifications, determine and disseminate protective action decisions (PADs), and activate CAIRA resources.

**(2)** If the IRF Commander determines that PCAPP augmentation support is required for CAIs, PCD emergency response and support teams will activate and respond in accordance with established support agreements.

**(3)** For CAIs occurring at the PCAPP, the PCAPP CON will report CAI information to the PCD OC within 5 (five) minutes using the direct PCAPP CON-PCD OC Hot-Line Phone or report all available information at the time of the initial notification with the expectation that updates will be provided as appropriate. The CON also notifies the Shift Manager who becomes the PCAPP EC, and implements the applicable contingency procedures. Radios using the appropriate radio talk groups will be the backup mode to communicate this information. The following information will be provided by the CON:

- (a)** CAI location

## ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

- (b) Source of agent release
- (c) Number of personnel injured and/or contaminated
- (d) If fire is involved
- (e) Chemical agent (HD or HT) involved
- (f) Type of munitions involved
- (g) Number of explosions, if any, and number of munitions involved, if known
- (h) Emergency response actions taken (masked, warned personnel, evacuated area, etc.)
- (i) Name of the PCAPP CON Operator calling

(4) The CON then determines and communicates the initial appropriate protective actions to on-site personnel. The CON also serves as the PCAPP incident command post and, therefore, notifies and activates emergency response teams when directed by the PCAPP EC. When discovering or recognizing that a CAI exists, the observer or first responder will immediately call the CON and provide the following information or report all available information at the time of the initial notification with the expectation that updates will be provided as appropriate:

- (a) CAI exact location
- (b) Source of chemical agent release
- (c) Number of personnel injured and/or contaminated
- (d) If fire is involved
- (e) Chemical agent (HD or HT) involved
- (f) Type of munitions involved
- (g) Number of explosions, if any, and number of munitions involved, if known
- (h) Emergency response actions taken (masked, warned personnel, evacuated area, etc.)
- (i) Caller name, location, and phone number

(5) During munition transport to PCAPP, when the Modified Ammunition Van (MAV) is within the PCD Chemical Limited Area, emergency response actions will remain with PCD, Chemical Operations personnel, and will be executed as outlined in this CAIRA Plan. The OC

will request assistance of the PCAPP CON if the PCAPP HAZMAT Team is required to provide assistance. PCAPP emergency response teams will render assistance as required.

## ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

**(6)** During munition transport to PCAPP, when the MAV is within the PCAPP Chemical Limited Area, PCAPP emergency response teams will assume responsibility for initial emergency response. The PCAPP CON will notify the PCD OC if additional assistance is required. PCD emergency response personnel will provide assistance as required.

**(7)** Upon notification of a suspected chemical release to atmosphere, PCD OC personnel will calculate the time for a potential plume to reach the involved PCAPP perimeter monitoring station(s). The Depot Area Air Monitoring System (DAAMS) tube from PCAPP perimeter monitoring station(s) will be collected as soon as the tail of the suspected plume passes the PCAPP perimeter monitoring station. The PCD Commander or designated representative will be notified of the DAAMS tube analysis results.

**(8)** In the event of chemical agent accident or incident, PCAPP site liaison/support personnel will report to their CAIRA duty stations in the PCD OC. Personnel who report to the PCD OC in a liaison/support capacity are a PCAPP-FO (government) representative and the BPT Emergency Preparedness Manager or designee. Additional PCAPP site project and plant management personnel may, report to the PCD OC, as required.

**(9)** Protective actions such as sheltering or evacuation will be made in accordance with PCAPP and PCD procedures.

**(10)** The assessment process continues until the CAI is mitigated, the chemical agent hazard is contained or eliminated, and the CAI site is restored to a technically acceptable condition through an effective recovery process.

**(a)** During or after a CAI, the installation commander is ultimately responsible for all restoration operations within their purview. Although day-to-day oversight and actual execution of this program may be delegated to others, the Commander remains the final authority for all decisions and actions. Because of safety, environmental, logistical, and security concerns, planning and managing recovery operations require a total PCD and PCAPP staff effort. During CAIRA events, numerous governmental agencies may be involved in recovery operations, especially if it involves remedial operations outside PCD boundaries.

**(b)** Many of the same resources used during a CAIRA response are used during recovery operations. Emergency response teams may be used to assist in recovery operations such as clean up, decontamination, or other remedial operations. Many times during recovery operations, it may be necessary to reenter hazardous or contaminated areas. Reentry operations must be planned and executed carefully following proper safety and protection requirements.

**(c)** Recovery operations are more deliberate and are generally not as urgent as response operations. There is time to plan and coordinate recovery tasks prior to implementation. The goal is to return the CAI site to a technically achievable and acceptable condition, based on compliance with regulatory and Installation requirements so that normal PCAPP operations can resume.

## ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

(d) Before normal PCAPP operations may be resumed, the PCAPP-FO Site Project Manager and BPT Project Manager must satisfy RCRA hazardous waste requirements and verify the emergency response capability has recovered and are prepared to support future operations. Once these requirements are met, the BPT Plant Manager must ensure all LCOs are met so that plant operations can resume. LCOs delineate the number of trained and certified emergency response team personnel that must be available on shift to conduct emergency response operations.

(e) The Installation Commander may authorize reentry to areas affected by the emergency event if an immediate threat to life and health no longer exists. Reentry operations generally occur during early stages of recovery operations. Reentry operations may be required to complete recovery tasks to restore PCAPP facilities to their pre-emergency state. Reentry may be authorized into the CAI site to investigate the accident/incident and determine cause, to perform cleanup or other restoration actions, to return evacuated personnel to work areas, and to support resumption of plant operations.

## 5. COMMAND AND SIGNAL.

**a. Command.** PCD Emergency Response is under the direction of the Plans, Operations and Training Division (POTD); PCAPP ERO operational control rests with the BPT plant manager.

**b. Signal.** Same as base plan.

## APPENDIX I TO ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

**APPENDIX I (PCAPP-EDS RESPONSE) to ANNEX V (PCAPP CAIRA RESPONSE)  
PCD CAIRA PLAN****1. SITUATION**

a. Two Explosive Destruction System (EDS) units will be located at the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) EDS site and will be used to treat or destroy:

- (1) Over packed munitions;
- (2) Miscellaneous items (ignition cartridges, propellant) containing mustard agent (distilled sulfur mustard [HD]/mustard-T mixture [HT]); and
- (3) Reject chemical agent munitions or contaminated bursters generated from PCAPP operations.

b. The EDS units will be deployed to support the goals of:

- (1) Completing the destruction of the PCD inventory of chemical agent munitions and other items in compliance with the Chemical Weapons Convention (CWC) and Public Law;
- (2) Maintaining continuity of U.S. chemical destruction operations; and
- (3) Conducting treatment/destruction activities in a safe, environmentally acceptable and cost-effective manner.

2. **PURPOSE.** Establish guidelines and responsibilities for a Chemical Accident or Incident (CAI) occurring at the EDS site. This Annex applies to all government, contractor and visitor personnel supporting the PCAPP- EDS site.

a. There may be other hazards associated with CAIs, including fire, explosions and structural hazards in or about the incident location. A chemical release or exposure incident should be considered an indicator of a potential multi-hazard event until proven otherwise and the following actions taken:

- (1) Ensure health and safety of personnel within and near the PCAPP- EDS site and protect the environment.
- (2) Provide for comprehensive investigation, evaluation, and reporting of all accidents or incidents involving chemical agents.
- (3) Minimize damage to facilities and equipment.
- (4) Implement responsive and effective procedures to eliminate the source of the event.
- (5) Prevent loss, theft, or seizure of chemical agents or munitions.

**3. EXECUTION.**

a. PCAPP-EDS site personnel will notify the PCD OC regarding any non-surety emergency, chemical event or unusual occurrence that has potential to impact other PCD directorates or the off-post community. For hazardous waste material spills or releases, the OC notifies the Crisis Management Team to report to the OC. See Annex A for the CAIRA Response Organization.

## APPENDIX I TO ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

b. Protective actions such as sheltering or evacuation will be made in accordance with PCD procedures.

c. Spills or Releases within PCAPP-EDS Engineering Controls.

(1) Incidental releases or spills occurring within engineering controls, will be managed by EDS site personnel using the EDS Resource Conservation and Recovery Act (RCRA) Contingency Plan (Section G). An incidental release is a release of hazardous waste/materials or waste constituents, including chemical agent, where the substance can be absorbed, neutralized, contained, or otherwise controlled by personnel in the immediate release area using emergency equipment on-hand. The PCD Operations Center will be notified of any spill or release.

(2) The PCAPP EDS RCMD Site Manager will be responsible for ensuring the appropriate response procedures are followed.

(3) The EDS Command Post will be notified if any emergency or spill release that threatens public health or environment occurs.

b. Spills or Releases Outside EDS Engineering Controls

(1) Should an incident involving chemical agent occur outside engineering controls, the PCD Operations Center will be notified of any spill or release. The PCD Operations Center upon notification will implement the PCD CAIRA Plan. The PCD CAIRA Plan provides procedures for evacuation, containment, decontamination, cleanup, recovery, and remedial operations relating to a chemical agent release.

(2) For spills or releases of non-chemical agent hazardous wastes or materials outside engineering controls, the PCD ISCP will be implemented. The ISCP identifies resources, equipment, personnel, and procedures to be used to prevent oil or non-agent-related hazardous material/waste spills from reaching surface and subsurface water.

(3) During munition transport to PCAPP- EDS, emergency response actions will remain with PCD and will be executed as outlined in this CAIRA Plan.

(4) If decontamination of terrain is required, decontamination measures will follow procedures specified in the current PCD ISCP.

(5) If the spill or release is a reportable spill or a release above the reportable quantity, notification will be made to the PCD OC. The On-Scene Coordinator (OSC) will evaluate the release and make additional notifications in accordance with the PCD ISCP, as required.

c. Evacuation routes from the PCAPP-EDS site will be posted onsite. If a wider area needs to be evacuated or the installation needs to be evacuated, procedures for evacuation (Annex F, PCD Installation Emergency Management Plan) will be implemented, and the installation will coordinate with local officials, as required.

d. Before normal PCAPP-EDS operations may be resumed, the PCAPP EDS RCMD Site Manager must satisfy RCRA hazardous waste requirements and verify the emergency response capability has recovered and are prepared to support future operations. Once these requirements are met, the PCAPP-EDS Project General Manager must ensure all Limiting Conditions of Operation (LCO) are met so that operations can resume. LCO delineate the number of trained and certified emergency response team personnel that must be available on shift to conduct emergency response operations.

## APPENDIX I TO ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

4. **SERVICE SUPPORT.** See Base Plan.

5. **COMMAND AND SIGNAL**

a. Command

(1) For all chemical accidents or incidents, the PCD Commander is the Incident Response Force (IRF) Commander and the On-Scene Coordinator (OSC) who provides overall command and control of the CAIRA emergency IAW guidelines set forth in AR 50-6. The Installation Commander may authorize reentry to areas affected by the emergency event if an immediate threat to life and health no longer exists.

(2) The PCD Fire Chief is normally designated as the On Scene Incident Commander (OSIC) with authority to commit resources needed to manage emergency situations and coordinating all operations at the accident site. The Fire and Emergency Services Department serves as the emergency response team for all incidents involving industrial and/or chemical facilities.

b. Signal

PCD OC and the PCAPP and EDS control rooms will share information via hotline regarding non-surety emergencies, chemical events and unusual occurrences.

(1) PCAPP-EDS Site Communications

(a) Internal communications of personnel between various trailers will consist of throat microphones, hand-held radios, headsets, and cell phones. Throat microphones and headset equipment will also be made available when personnel are required to use self-contained breathing apparatus (SCBA) equipment or supplied air, and the “two-man rule” will be invoked during operations involving surety material.

(b) Non-routine operating conditions, including detection of the release of chemical agent above the established alarm level will be conveyed to site personnel using this internal communication system.

(c) Hotline communications will be established between the PCAPP-EDS control room and the PCD OC. Land lines and/or cell phones will be the primary external communication equipment used to summon emergency assistance from PCD security, police, and fire department and emergency response teams. Hand-held radios and cell phones may also be used to summon external assistance in an emergency.

(2) Notification. Additionally, when a chemical agent, hazardous waste/hazardous material accident/incident emergency occurs at the PCAPP-EDS site, these procedures will be followed:

(a) The discoverer of the incident will immediately notify the PCAPP EDS RCMD Site Manager or designee of the incident by vocal command (for example, person to person, telephone, or radio).

(b) PCAPP EDS RCMD Site Manager or designee will visually assess the incident and notify and provide input to the PCD OC.

## APPENDIX I TO ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

(c) PCAPP-EDS site personnel and visitors will be notified of an emergency by an audible alarm and/or vocal command. Individuals visiting the PCAPP-EDS site will be escorted by personnel who are familiar with site-specific emergency notification procedures.

(d) Upon notification of an emergency, all PCAPP-EDS processing and support operations will continue until items being processed have been safely secured. Once the items are secured, PCAPP-EDS processing operations will cease.

(e) The OSC and PCAPP EDS RCMD Site Manager will evaluate the incident. The OSC will determine if local authorities should be contacted to request assistance or evacuate the local area. This procedure is in accordance with the PCD CAIRA Plan or ISCP. The OSC will also notify all appropriate local and state agencies as necessary, based on the extent of the incident. The PCD ISCP describes the process PCD employs for emergency situations and notifying appropriate state or local agencies with designated response roles.

## ANNEX W (DEFINITIONS) PCD CAIRA Plan

**ANNEX W (DEFINITIONS) PCD CAIRA Plan****SECTION I, TERMS:**

**AUGMENTATION FORCE (AF).** Additional personnel (or units) who are organized, trained, armed, equipped and capable of assisting initial forces as required.

**BLISTER AGENT.** A chemical agent that injures the eyes and lungs and burns or blisters the skin.

**BUDDY-AID.** The administration of aid to a person exhibiting severe chemical agent poisoning symptoms who is unable to help himself.

**CHEMICAL ACCIDENT/INCIDENT (CAI).** A term used to refer to a chemical event involving chemical surety material.

a. **Chemical Accident.** Resulting from non-deliberate acts where safety is of primary concern.

b. **Chemical Incident.** Resulting from deliberate acts (terrorism or criminal) where security is of primary concern.

**CHEMICAL ACCIDENT/INCIDENT RESPONSE AND ASSISTANCE (CAIRA).** Plans and operations in response to a CAI taken to save lives, preserve health and safety, secure surety materiel, protect property and provide for controlled release of information.

**CHEMICAL ACCIDENT/INCIDENT OPERATIONAL PHASES.** There are three phases within CAIRA operations:

a. **Readiness Phase.** A continuous phase that takes place until a chemical event occurs. Emergency response forces prepare and coordinate response plans, establish organizations to execute those plans, train personnel and organizations to the required level of proficiency, evaluate response organization ability to execute plans, and educate the public to the potential threat and to emergency response procedures.

b. **Response Phase.** The phase initiated at the onset of a chemical event. Emergency response forces take those actions necessary to gain control of the CAI site to include saving lives, preserving health and safety, containing and rendering safe hazardous materials, protecting the environment, securing CSM and government property, and promoting public confidence in the Army's ability to conduct emergency response operations. For the purposes of this plan, this phase is roughly equivalent to removal, as defined by the NCP.

c. **Recovery Phase.** A timeline between the response phase and the recovery phase is not as distinct as between the readiness and response phases. During the recovery phase, emergency response forces initiate operations to restore conditions at or in the vicinity of the CAI site to a technically feasible and acceptable state. Restoration or remedial actions (see the NCP) are the primary activities conducted during this phase.

## ANNEX W (DEFINITIONS) PCD CAIRA PLAN

**CHEMICAL ACCIDENT/INCIDENT SITE.** The location of the chemical event where a security concern or chemical agent contamination concern exists, including all areas in close proximity to the contamination. (NOTE: The term “on-site” equates to the actual location of the CAI site and not to “on-post”.)

**CHEMICAL AGENT.** A chemical compound intended for use (to include experimental compounds) in military operations to kill, seriously injure, or incapacitate a person through its chemical properties. Excluded are Research, Development, Test and Evaluation (RDTE) dilute solutions, riot control agents, chemical defoliants and herbicides, smoke, flame and incendiaries and industrial chemicals.

**CHEMICAL EVENT.** A chemical event encompasses chemical surety material accidents, incidents and other circumstances where there is a confirmed or likely release to the environment, exposure of personnel above the STEL for the chemical agent involved, threat to the security of chemical surety material, or event of concern to the local commander. The anticipated response to a chemical event is the activation of all or a select portion of the IRF.

**CHEMICAL PERSONNEL RELIABILITY PROGRAM (CPRP).** The program established to ensure that personnel assigned to positions which involve access to or responsibility for the security of CSM are emotionally stable, loyal to the United States, trustworthy, physically fit, and fully trained to perform assigned duties.

**CHEMICAL STOCKPILE EMERGENCY PREPAREDNESS PROGRAM (CSEPP).** The joint program between the Department of the Army (DA) and the Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA) designed to enhance emergency preparedness at and in the communities surrounding Army chemical surety installations where demilitarization of the chemical agent stockpile will take place. A 03 August 1988 Memorandum of Agreement (MOA) between the Assistant Secretary of the Army (Installation, Logistics, and Environment) and FEMA established CSEPP.

**CHEMICAL SURETY.** A system of safety and control measures designed to provide protection to the local population, workers, and the environment by ensuring that chemical agent operations are conducted safely; that chemical agents are secure; and that personnel involved in those operations meet the highest standards of reliability.

**CHEMICAL SURETY MATERIAL (CSM).** Chemical agents and their associated weapon systems, or storage and shipping containers that are either adopted or being considered for military use. Consult AR 50-6 for specific details.

**CLEAN AREAS.** Those areas whose environments are free of liquid agent contamination and which have been monitored to verify that air concentrations are below the Airborne Exposure Limit.

**DECONTAMINATING MATERIAL.** Any substance used to chemically destroy, physically remove, seal, or otherwise make harmless a chemical agent.

**DECONTAMINATION TEAM.** An emergency response team designed to enter the CAI site after the completion of initial emergency response procedures. The Decontamination Team

## ANNEX W (DEFINITIONS) PCD CAIRA PLAN

determines the extent of contamination, containerizes any leaking munitions and decontaminates all equipment and contaminated areas.

**DOWNWIND HAZARD ZONE.** For a given set of chemical release and meteorological conditions, this is the specific area in which chemical agent levels exceed established health and safety limits.

**DURESS SYSTEM.** A method by which personnel who control entry and escort visitors into a chemical limited and/or exclusion area can communicate covertly a threatening situation to other operating or security personnel.

**ENTRY CONTROL FACILITY.** Part of the perimeter security system and the point from which personnel and vehicle control and badge operations are conducted.

**ESSENTIAL ELEMENTS OF INFORMATION (EEI).** Critical items of information regarding the situation at an accident/incident site needed by the IRF Commander to make a logical decision on the appropriate response actions. EEI include but are not limited to the following:

- Location of accident/incident.
- What happened (fire, explosion, leak, etc.)
- Type of agent and number of munitions involved.
- Extent of injuries.
- Actions taken to mitigate hazard(s) (spill covered, igloo door closed, etc.)
- Weather conditions.

**EXCLUSION AREA.** The area immediately surrounding one or more receptacles in which chemical agents are contained. Normally, the boundaries of an exclusion area are the walls, floor and ceiling of a storage structure, secure container or a barrier that establishes the boundary of the exclusion area (such as an igloo or fence). In the absence of positive preventive measures, access into the area constitutes access to the chemical agent.

**EXPLOSIVE ORDNANCE DISPOSAL (EOD).** Detection, identification, field evaluation, rendering safe, recovery and final disposal of unexploded explosive ordnance or munitions.

**HOTLINE.** The downwind end of personnel decontamination operations. All personnel working in the contaminated area and all equipment used in the operation must enter and leave through this control point.

**INCIDENT ACTION PLAN.** Per the National Incident Framework and the National Incident Management System, provides a concise and coherent means of capturing and communicating the overall incident priorities, objectives, and strategies in the contexts of both operational and support activities.

**INITIAL RESPONSE FORCE (IRF).** An emergency actions organization tasked to provide first response to a CAI at an installation assigned a chemical surety mission or in the public domain. Under the command of the installation commander or the commander of the nearest Army installation, the IRF is composed of command and control elements and emergency teams

## ANNEX W (DEFINITIONS) PCD CAIRA PLAN

capable of providing emergency medical services and initiating those actions necessary to prevent, minimize, or mitigate hazards to public health and safety or to the environment.

**INTRUSION DETECTION SYSTEM (IDS)**. A security system consisting of a sensor(s) capable of detecting one or more types of phenomena, signal media, enunciator(s) and energy source, for signaling the entry or attempted entry of a person or other target into the area protected by the system to alert Security personnel.

**JOINT INFORMATION CENTER (JIC)**. A facility established to coordinate all Public Affairs activities, to include federal, state and county agencies in the event of a chemical accident/incident.

**LEAKING MUNITION**. Munitions from which there has been confirmed detection of chemical agent outside the munitions body or bulk storage container.

**LIMITED AREA**. The designated area immediately surrounding one or more exclusion areas. Normally, the area between the boundaries of the exclusion areas and the perimeter boundary (such as the inner fence at a storage depot) or inside of a laboratory room where chemical surety material is stored in chemical secure containers.

**NATIONAL DEFENSE AREA (NDA)**. An area established on non-federal lands located within the United States, its possessions or its territories, for the purpose of safeguarding classified defense information, or protecting DOD equipment and materiel.

**NEUTRALIZATION**. The act of altering the chemical, physical and toxicological properties to render the chemical agent ineffective for use as intended.

**ON-SCENE COORDINATOR (OSC)**. A federal official predesignated to coordinate and direct federal responses under the NCP. (The IRF Commander is the DA OSC for a CAI involving CSM.)

**ON SCENE INCIDENT COMMANDER (OSIC)**. The official, as described in 29 CFR 1910.120(q)(6)(v), who is in charge of field operations during a CAI response. At PCD, this is usually the Senior Fire Officer on-site.

**PERSONNEL DECONTAMINATION STATION (PDS)**. A control point at the hotline designed to systematically down-dress and shower personnel leaving the CAI site. This procedure serves to eliminate the possibility of any spread of contamination that may have occurred while performing required CAI functions.

**PHONE NETWORK 911**. The depot emergency telephone system which, when activated by Security, contacts the Occupational Health Clinic, Fire Department, and the OC. This is not the same as the public (off-post) 911 system.

**RELEASE**. Spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (to include the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous

## ANNEX W (DEFINITIONS) PCD CAIRA PLAN

substance, pollutant or contaminant). For purposes of the NCP, release also means threat of release.

**REMEDIAL PROJECT MANAGER**. The official designated by the lead agency (in the case of a CAI at PCD, DOD) to coordinate, monitor, or direct remedial or other response actions under subpart E of the NCP.

**REMOVAL**. Removal of oil or hazardous substances from the water and shorelines, or taking of such other actions as may be necessary to minimize or mitigate damage to public health, welfare, or the environment. As defined by section 101(23) of CERCLA, remove or removal means:

- a. Cleanup or removal of released hazardous substances from the environment.
- b. Actions necessary taken in the event of threat of release of hazardous substances into the environment.
- c. Actions necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances.
- d. Disposal of removed material.
- e. Taking any other actions as may be necessary to prevent, minimize, or mitigate damage to public health or welfare, or to the environment, which may otherwise result from a release or threat of release. This term includes security fencing or other measures which limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under section 104(b) of CERCLA, and any emergency assistance that may be provided under the Disaster Relief Act of 1974. Also includes the enforcement activities related thereto.

**RENDER SAFE PROCEDURES (RSP)**. That portion of explosive ordnance disposal procedures which involve the application of special explosive ordnance disposal methods and tools which cause the interruption of functions or separation of essential components of unexploded explosive ordnance and which prevent unacceptable detonation. These procedures are to be performed by properly trained EOD personnel only, per AR 75-15.

**RUNNING ROUTE**. The route established by the PCD Fire Department to be used by all emergency response teams en route to the chemical accident/incident site. This route is used to ensure an upwind approach.

**STAGING AREA**. An assembly area established for CAI response teams to gather and coordinate response actions.

**TWO-PERSON CONCEPT**. A system designed to prohibit access by an individual to chemical agent by requiring the presence at all times of at least two authorized personnel, each capable of performing first aid in case of exposure to chemical agent or detecting incorrect or unauthorized procedures with respect to the task being performed. Each person must be familiar with applicable safety and security requirements. For a more detailed listing of Definitions reference AR 50-6.

## ANNEX W (DEFINITIONS) PCD CAIRA PLAN

**SECTION II, ABBREVIATIONS:**

<b>A&amp;N</b>	Alert and Notification
<b>ACWA</b>	Assembled Chemical Weapons Alternatives
<b>AEGLs</b>	Acute Exposure Guideline Levels
<b>AEL</b>	Airborne exposure limits
<b>AF</b>	Augmentation Force
<b>AMC</b>	United States Army Materiel Command
<b>AOC</b>	Army Operations Center
<b>AR</b>	Army Regulation
<b>AT/FP</b>	Antiterrorism/Force Protection
<b>CAI</b>	Chemical Accident/Incident
<b>CAIRA</b>	Chemical Accident/Incident Response and Assistance
<b>CAIRAP</b>	Chemical Accident/Incident Response and Assistance Plan
<b>CBERS</b>	Chemical Biological Event Reporting System
<b>CBRNE</b>	Chemical, biological, radiological, nuclear, and high yield explosive
<b>CENL</b>	Chemical Event Notification Level
<b>CER</b>	Chemical Event Report
<b>CERCLA</b>	Comprehensive Environmental Response, Compensation, and Liability Act
<b>CFR</b>	Codes of Federal Regulations
<b>CLA</b>	Chemical Limited Area
<b>CMA</b>	Chemical Materials Activity
<b>CSEPP</b>	Chemical Stockpile Emergency Preparedness Program
<b>CSM</b>	Chemical Surety Material
<b>DA</b>	Department of the Army
<b>DA Pam</b>	Department of the Army Pamphlet
<b>DDESB</b>	Department of Defense Explosive Safety Board
<b>DECON</b>	Decontamination
<b>DHS</b>	Department of Homeland Security
<b>DOD</b>	Department of Defense
<b>DOSC</b>	Deputy On-Scene Coordinator
<b>EACH</b>	Evans Army Community Hospital
<b>EDS</b>	Explosive Destruction System
<b>EI</b>	Essential Elements of Information
<b>EMT</b>	Emergency Medical Technician
<b>EOC</b>	Emergency Operations Center
<b>EOD</b>	Explosive Ordnance Disposal
<b>EPA</b>	Environmental Protection Agency
<b>ERP</b>	Emergency Response Plan
<b>ETA</b>	Estimated Time of Arrival
<b>FAX</b>	Facsimile
<b>FEMA</b>	Federal Emergency Management Agency

## ANNEX W (DEFINITIONS) PCD CAIRA PLAN

<b>FBI</b>	Federal Bureau of Investigation
<b>FORSCOM</b>	United States Army Forces Command
<b>FRC</b>	Federal Response Center
<b>IAP</b>	Incident Action Plans
<b>IAW</b>	In accordance with
<b>IC</b>	Incident Commander
<b>ICS</b>	Incident Command System
<b>IRF</b>	Initial Response Force
<b>IRFC</b>	Initial Response Force Commander
<b>JIC</b>	Joint Information Center
<b>JIS</b>	Joint Information System
<b>JONO</b>	Job Order Number
<b>JPM-E</b>	Joint Project Manager for Elimination
<b>MAA</b>	Mutual Aid Agreement
<b>MAT</b>	Medical Augmentation Team
<b>MILSTRIP</b>	Military Standard Requisitioning and Issue Procedures
<b>MOA</b>	Memorandum of Agreement
<b>MRICD</b>	United States Army Medical Research Institute of Chemical Defense
<b>MRT</b>	Medical Response Team
<b>NCP</b>	National Oil and Hazardous Substances Pollution Contingency Plan aka National Contingency Plan
<b>NDA</b>	National Defense Area
<b>NIMS</b>	National Incident Management System
<b>NOK</b>	Next of Kin
<b>NRC</b>	National Response Center
<b>NRF</b>	National Response Framework
<b>OC</b>	Operations Center
<b>OCP</b>	Operation Control Point
<b>OCPA</b>	Office of the (Army) Chief of Public Affairs
<b>OHC</b>	Occupational Health Clinic
<b>OPSEC</b>	Operations Security
<b>OSC</b>	On-Scene Coordinator
<b>OSHA</b>	Occupational Safety and Health Administration
<b>OSIC</b>	On Scene Incident Commander
<b>PAD</b>	Protective Action Decision
<b>PAO</b>	Public Affairs Officer
<b>PAR</b>	Protective Action Recommendation
<b>PCAPP</b>	Pueblo Chemical Agent-Destruction Pilot Plant
<b>PCAPP EDS</b>	Pueblo Chemical Agent-Destruction Pilot Plant Explosive Destruction System
<b>PCD</b>	Pueblo Chemical Depot

## ANNEX W (DEFINITIONS) PCD CAIRA PLAN

<b>PDS</b>	Personnel Decontamination Station
<b>PPE</b>	Personal Protective Equipment
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>RPM</b>	Remedial Project Manager
<b>RRT</b>	Regional Response Team
<b>RQ</b>	Reportable Quantity
<b>RSP</b>	Render Safe Procedures
<b>SARA</b>	Superfund Authorization and Reauthorization Act
<b>SCP</b>	Spill Contingency Plan
<b>SOP</b>	Standing Operating Procedure
<b>SPCCP</b>	Spill Prevention, Control and Countermeasures Plan
<b>SSCC</b>	Site Security Control Center
<b>TAR</b>	Tone Alert Radios
<b>USAEC</b>	United States Army Environmental Center
<b>USANCA</b>	United States Army Nuclear and Combating Weapons of Mass Destruction Agency
<b>USC</b>	United States Code
<b>VIP</b>	Very Important Person

## ANNEX X (REFERENCES) PCD CAIRA Plan

**ANNEX X (REFERENCES) PCD CAIRA Plan**

29 CFR 1910.120, Occupational Safety and Health Regulations, General Industry Hazardous Waste Operations and Emergency Response.

40 CFR 300, Subject: National Oil and Hazardous Substance Pollution Contingency Plan; Final Rule.

AMC Memorandum, from Gary Motsek, G-3, *Establishing Security Perimeters for Chemical Accidents or Incidents*, March 16, 2006.

AMC Memorandum, from Mr. Frank Belcastro, Acting director CMA Operations, *Establishing Security Perimeters for Chemical Accidents or Incidents*, April 27, 2006

AMC-R 385-1, Safety Manual.

AR 10-16, U.S. Army Nuclear And Combating Weapons Of Mass Destruction Agency.

AR 11-34, The Army Respiratory Protection Program.

AR 190-11, Physical Security of Arms, Ammunition and Explosives.

AR 190-14, Carrying of Firearms and Use of Force for IAW Enforcement and Security Duties.

AR 190-59, Chemical Agent Security Program.

AR 27-20, Claims.

AR 350-28, Army Exercises.

AR 360-1, The Army Public Affairs Program.

AR 380-67, The Department of the Army Personnel Security Program.

AR 380-86, Classification of Former Chemical Warfare, Chemical and Biological Defense, and Nuclear, Biological Contamination Survivability Information.

AR 385-10, The Army Safety Program.

AR 40-13, Medical Support - Nuclear/Chemical Accidents and Incidents.

AR 420-1, Army Facilities Management

AR 50-6, Chemical Surety.

AR 525-13 Military Operations Antiterrorism.

## ANNEX X (REFERENCES) PCD CAIRA PLAN

AR 525-27 Emergency Management.

AR 75-15, Responsibilities and Procedures for Explosive Ordnance Disposal.

DA Pam 27-162, Legal Services Claims.

DA Pam 385-10, Army Safety Program,

DA Pam 385-30, Mishap Risk Management

DA Pam 385-40, Army Accident Investigations And Reporting

DA Pam 385-61, Toxic Chemical Agent Safety Standards

DA Pam 385-64, Ammunition and Explosives Safety Standards

DA PAM 525-27, Army Emergency Management Program

Interin Guidance on Occupational Health Practices for the Evaluation and Control of Occupational Exposures to Nerve Agents GA, GB, GD, GF and VX and Mustard Agents H, HD and HT (Memorandum, SAIE-ZX, 23 Jan 2013).

DoD 5210.65, Minimum Security Standards for Safeguarding Chemical Agents.

DoDD 3025.1, Military Support to Civil Authorities (MSCA).

DoDD 5030.41, Oil and Hazardous Substances Pollution Prevention and Contingency Program.

DoDD 5200.8, Security of DoD Installations and Resources.

DODI 6055.17, DoD Installation Emergency Management (IEM) Program

Homeland Security Presidential Directive 5, February 28, 2003.

PCAPP Construction Phase Emergency Response and Contingency Plan

PCD Chemical Accident/Incident Recovery Plan

PCD Installation Emergency Management Plan

PCD Physical Security Plan

PCD Policy #12, Authority to Declare a Chemical Event

PCD Policy #6, Operational Reporting

PCD R 385-12, Safety and Occupational Health Program

PCD R 385-507, Prevention of Heat and Cold Related Injuries/Illnesses

ANNEX X (REFERENCES) PCD CAIRA PLAN

PCD R 40-20, Respiratory Protection Program

PCD R 50-3, Site Specific Monitoring Plan

PCD R 50-4, Equipment Decontamination Plan

PCD SOP PU-0000-R-491, Real Time Monitoring Systems Technical Operating Procedures

PCD SOP PU-0000-M-486, Chemical Operations

PCD SOP PU-0000-W-465, Toxic Chemical Laboratory Analytical Operating Procedures

PCD SOP PU -0000-M-302, Emergency Response.

PCD SOP PU-0000-M-501, Protective Equipment

U.S. Army Materiel Command (AMC) Emergency Response Plan (ERP)

ANNEX Y (DISTRIBUTION) TO PCD - CAIRAP

**ANNEX Y (DISTRIBUTION) to PCD – CAIRAP**

**ORGANIZATION COPIES**

Commander

**U.S. Army Nuclear and Combating Weapons of Mass Destruction Agency**

ATTN: ATNA-OP

Building 2073

7150 Heller Loop, Suite 101

Springfield, VA 22150-3198

1

Commander

**U.S. Army Materiel Command**

ATTN: AMCOPS-SSO

7612 Cardinal Road

Redstone Arsenal, AL 35898

1

Director

**U.S. Army Chemical Materials Activity**

ATTN: AMSCM-CS (Mr. Richard Brletich)

E4585 Hoadley Road

Aberdeen Proving Ground, MD 21010-5424

3

Commander

**Blue Grass Chemical Activity**

ATTN: CMBG-CO

Bldg. S-56, 431 Battlefield Memorial Highway

Richmond, KY 40475

1

**FEMA, Region VIII**

ATTN: CSEPP

Denver Federal Center

Building 710

Box 25267

Denver, CO 80225-0267

1

**Colorado Division of Emergency Management**

9195 East Mineral Avenue

Suite 200

Centennial, CO 80112

1

**Pueblo County Emergency Services Bureau**

320 W. 10th Street

Pueblo, CO 81003-2995

1

## ANNEX Y (DISTRIBUTION) TO PCD CAIRAP

**Colorado Department of Public Health and Environment**

4300 Cherry Creek Dr South  
 Denver, CO 80246-1530

3

**Regional Response Team**

EPA Region VIII  
 1595 Wynkoop Street  
 Mail Code 8EPR-SA  
 Denver, CO 80202-1129

1

**Pueblo Chemical Depot:**

Commander	2
Deputy Commander	1
Surety Office	1
On Scene Incident Commander	1
Chemical Surety and Compliance Office	2
Chemical Operations Division	5
Public Affairs Office	1
Treaty Compliance Office	1
Occupational Health Clinic	1
Public Works Division	1
Budget Resource Management Office	1
Operations Officer	2
Environmental Management Office	1
Information Management Office	1
Security & Law Enforcement Division	1
PCAPP	2

## ANNEX Z (HAZARD ANALYSIS) TO PCD - CAIRAP

**ANNEX Z (HAZARD ANALYSIS) to PCD – CAIRAP**

(This HA, and the HA's listed in the PCD SOP's 302, 486, and 491 will be assessed during CAIRA operations)

1 OPERATION	2 HAZARD	3 EFFECT OF HAZARD Personnel, Equipment & Facility	4 CAUSE OF HAZARD Condition/Action	5 HAZARD CATEGORY WITHOUT PREVENTIVE MEASURES			6 PREVENTIVE MEASURES	7 HAZARD CATEGORY WITH PREVENTIVE MEASURES		
				HS	HP	RAC		HS	HP	RAC
Exercise Players and Evaluators conducting standard operations in warm to hot weather.	Heat Strain Heat Stress Heat Stroke	Mild to Severe physical and mental symptoms of heat related illness.	High Temperatures resulting in dehydration and other heat related stressors	II	B	High 2	Training and briefings Hydration – Available liquids Work and rest cycles Cooling Vests Shade Medical Surveillance Physical Conditioning	II	E	Low 4
Exercise Players and Evaluators conducting standard operations.	Slips, Trips, and Falls	Mild to severe physical stresses, strains, and injuries.	Lack of situational awareness  In a hurry  Uneven surfaces.  Slippery surfaces  Obstacles in working areas	III	B	M 3	Safety briefings Slow down and be observant Clear working areas of trip hazards Plan actions in advance Use proper footwear Practice situation awareness and composite risk management at all times.	III	D	Low 4
Exercise Players and Evaluators conducting	Back, shoulder, and related strains and sprains.	Mild to severe physical strains and injuries.	Lifting, bending, and twisting improperly while moving materials and other	III	B	M 3	Safety awareness briefings  Two man rule when lifting heavy objects	III	D	Low 4

## ANNEX Z (HAZARD ANALYSIS) TO PCD CAIRAP

1 OPERATION	2 HAZARD	3 EFFECT OF HAZARD Personnel, Equipment & Facility	4 CAUSE OF HAZARD Condition/Action	5 HAZARD CATEGORY WITHOUT PREVENTIVE MEASURES			6 PREVENTIVE MEASURES	7 HAZARD CATEGORY WITH PREVENTIVE MEASURES		
				HS	HP	RAC		HS	HP	RAC
standard operations.			material handling tasks.				Use of material handling equipment Proper lifting techniques Planning lift and movement of items Adherence to basic ergonomic principles			
Exercise Players and Evaluators conducting standard operations	Actual chemical agent exposure to Mustard Agent HD, HT as a result of agent leakage, explosion, fire.	Mild to severe physical symptoms and injuries as a result of exposure to agent liquid, aerosols, or vapor.	Leakage, explosion, or fire involving the chemical agent stockpile.	II	D	M 3	Chemical agent safety/health training Personal protective equipment (masks) Decontamination procedures Evacuation procedures and plans Medical assistance and care Agent monitoring Standard Operating Procedures Buddy System & CPR/First Aid	II	E	Low 4
Exercise Players and Evaluators conducting	Lightning and Thunderstorms	Mild to severe physical harm.	Thunderstorms in the late afternoon in Rock Mountain environment.	I	D	H 2	Monitor weather reports Safety Awareness briefings Lightning detection	I	E	Low 4

## ANNEX Z (HAZARD ANALYSIS) TO PCD CAIRAP

1 OPERATION	2 HAZARD	3 EFFECT OF HAZARD Personnel, Equipment & Facility	4 CAUSE OF HAZARD Condition/Action	5 HAZARD CATEGORY WITHOUT PREVENTIVE MEASURES			6 PREVENTIVE MEASURES	7 HAZARD CATEGORY WITH PREVENTIVE MEASURES		
				HS	HP	RAC		HS	HP	RAC
standard operations							instrumentation Stop work procedures Go to protective buildings/areas as directed			
Exercise Players and Evaluators conducting standard operations	Traffic Mishaps	Mild to Severe physical harm Mild to Severe property and equipment damage	Driving too fast for conditions Lack of situational awareness Failure to adhere to regulations Failure to monitor for wildlife Use of electronic devices	II	D	M 3	License and training – insurance Safety Awareness briefings Drive posted speed limit Drive at speed dictated by road conditions Watch for wildlife Do not use cellular phones or related devices Extra care when backing Park, chock, and lock as required Inspect and maintain vehicles Mandatory seat belt use Special licensing and training for emergency vehicle operators. Guides when backing large vehicles.	II	E	Low 4

## ANNEX Z (HAZARD ANALYSIS) TO PCD CAIRAP

1 OPERATION	2 HAZARD	3 EFFECT OF HAZARD Personnel, Equipment & Facility	4 CAUSE OF HAZARD Condition/Action	5 HAZARD CATEGORY WITHOUT PREVENTIVE MEASURES			6 PREVENTIVE MEASURES	7 HAZARD CATEGORY WITH PREVENTIVE MEASURES		
				HS	HP	RAC		HS	HP	RAC
Exercise Players and Evaluators conducting standard operations	Hantavirus	Mild, severe, or possible fatality due to viral illness (water on lungs).	Infection of hantavirus after contact with rodent urine, feces, nests, etc.	I	E	M 3	Safety Awareness briefings Avoid disturbing rodents nests Avoid rodents and their feces Emergency medical treatment	I	E	Low 4
Exercise Players and Evaluators conducting standard operations	Bubonic Plague	Mild or severe physical symptoms due to disease.	Contact with fleas carrying plague that are on prairie dogs.	II	D	M 3	Safety Awareness briefings Avoid prairie dogs and their burrows Avoid dead animals including prairie dogs Practice good hygiene (showering after work) Emergency medical treatment	II	E	Low 5
Exercise Players and Evaluators conducting standard operations	West Nile Virus	Mild or severe physical symptoms due to disease	Contact with mosquitoes carrying the virus	II	D	M 3	Safety Awareness briefings Avoid mosquitoes when possible Use DEET or other deterrent Stay indoors when possible if mosquitoes are active Where long sleeves and other covering when mosquitoes are active	II	E	Low 5

## ANNEX Z (HAZARD ANALYSIS) TO PCD CAIRAP

1 OPERATION	2 HAZARD	3 EFFECT OF HAZARD Personnel, Equipment & Facility	4 CAUSE OF HAZARD Condition/Action	5 HAZARD CATEGORY WITHOUT PREVENTIVE MEASURES			6 PREVENTIVE MEASURES	7 HAZARD CATEGORY WITH PREVENTIVE MEASURES		
				HS	HP	RAC		HS	HP	RAC
Exercise Players and Evaluators conducting standard operations	Rattlesnakes	Mild or severe physical symptoms from snake venom	Bitten by rattlesnake	II	D	M 3	Safety Awareness briefings Situational Awareness Watch where you place hands Do not lift items in the prairie Know characteristics of rattlesnake Do not bother snakes Where boots when walking in prairie Get medical attention if bitten	II	E	Low 4
Exercise Players and Evaluators conducting standard operations	Hazardous Insects	Mild or severe physical symptoms.	Bitten by bees, wasps, hornets, black widow spiders, scorpions, tarantulas, or other insects common to the Colorado prairie.	II	D	M 3	Safety Awareness briefings Situational Awareness Avoid insects Do not wear bright colors or perfumes Use insect repellent if necessary Be extra cautious and keep others informed if allergic to insect bites Get medical attention if bitten	II	E	Low 4

## ANNEX Z (HAZARD ANALYSIS) TO PCD CAIRAP

1 OPERATION	2 HAZARD	3 EFFECT OF HAZARD Personnel, Equipment & Facility	4 CAUSE OF HAZARD Condition/Action	5 HAZARD CATEGORY WITHOUT PREVENTIVE MEASURES			6 PREVENTIVE MEASURES	7 HAZARD CATEGORY WITH PREVENTIVE MEASURES		
				HS	HP	RAC		HS	HP	RAC
Exercise Players and Evaluators conducting standard operations	Sunburn, Wind, and Dust	Mild to Moderate physical symptoms	Bright sun, high winds, and blowing dust.	III	B	M 3	Wear UV blocking sunglasses and eye protection from dust. Wear adequate sunscreen and reapply as necessary. Use 15 or greater sun block. Wear hats and long sleeves as appropriate.	III	D	L 4
Exercise Players and Evaluators conducting standard operations	Unexploded Ordnance	Mild to Fatality	Initiating unexploded ordnance	I	D	H 2	Safety Awareness briefings Do not touch unidentified objects Follow three R rule of Recognize, Retreat, and Report Do not touch or disturb unidentified objects Situational Awareness	I	E	L 5
Exercise Players and Evaluators conducting standard operations	Range Fires and General Fire Hazards	Mild to Severe personal injuries and property damage.	Improper smoking or use of flame or heat producing devices initiate fire.	II	D	M 3	Safety Awareness briefings Designated smoking areas No flame producing devices in Limited Area Hot Work Permits Avoid driving vehicles over brush – Stay on roadways	II	E	L 5

## ANNEX Z (HAZARD ANALYSIS) TO PCD CAIRAP

1 OPERATION	2 HAZARD	3 EFFECT OF HAZARD Personnel, Equipment & Facility	4 CAUSE OF HAZARD Condition/Action	5 HAZARD CATEGORY WITHOUT PREVENTIVE MEASURES			6 PREVENTIVE MEASURES	7 HAZARD CATEGORY WITH PREVENTIVE MEASURES		
				HS	HP	RAC		HS	HP	RAC
							when possible Do not throw lighted material out of vehicles – Do not smoke in government vehicles  Be aware of location of portable fire extinguishers and fire evacuation routes.			
Exercise Players and Evaluators conducting standard operations	Noise	Minor injury, lost workday accident.	Working with or around air compressors, generators, or other noise hazard areas that exceed hearing standards that could result in an occupational hearing loss.	III	C	Med 3	Training employees on hearing conservation and work processes where the use of hearing protection is mandated. Post warning signs “Hearing Protection Required Beyond this Point”. Adhere to PCD-R 40-1.	III	D	Low 4
Exercise Players and Evaluators conducting standard operations	Lightning	Death or permanent total disability.	Personnel working outdoors during lightning storms, resulting lightning strikes injuring or killing personnel.	I	D	High 2	Lighting protection and storm warning procedures will be conducted in accordance with PCD Disaster Control Plan.	I	E	Med 3 De minim is

## ANNEX Z (HAZARD ANALYSIS) TO PCD CAIRAP

1 OPERATION	2 HAZARD	3 EFFECT OF HAZARD Personnel, Equipment & Facility	4 CAUSE OF HAZARD Condition/Action	5 HAZARD CATEGORY WITHOUT PREVENTIVE MEASURES			6 PREVENTIVE MEASURES	7 HAZARD CATEGORY WITH PREVENTIVE MEASURES		
				HS	HP	RAC		HS	HP	RAC
Exercise Players and Evaluators conducting standard operations	Motor Vehicle Operations	Death or permanent total disability.	Vehicle crash due to mechanical equipment failure during vehicle operations injuring operator and/or passengers.	I	D	High 2	Perform daily (documented) vehicle pre- operations checks. Report defective or damaged vehicle components, equipment items immediately for corrective action, maintenance prior to operation of the vehicle. Mandatory use of seat belts for operator and or passengers.	I	E	Med 3 De minim is
		Death or permanent total disability.	Reckless driving, speeding causing loss of vehicle control (crash) injuring operator and/or passengers.	I	D	High 2	Ensure that vehicle operators have a valid government driver's license. Ensure that vehicle operators have completed the Army's Motor Vehicle Accident Avoidance Course. Follow posted speed limits at all times. Mandatory use of seat belts for operator and or passengers. Ground guides will be utilized for all vehicles/forklifts while backing-up and positioning during set setup.	I	E	Med 3 De minim is

## ANNEX Z (HAZARD ANALYSIS) TO PCD CAIRAP

1 OPERATION	2 HAZARD	3 EFFECT OF HAZARD Personnel, Equipment & Facility	4 CAUSE OF HAZARD Condition/Action	5 HAZARD CATEGORY WITHOUT PREVENTIVE MEASURES			6 PREVENTIVE MEASURES	7 HAZARD CATEGORY WITH PREVENTIVE MEASURES		
				HS	HP	RAC		HS	HP	RAC
		Death or permanent total disability.	Vehicle striking wild life (crash) crossing/on PCD roadways in route to and from ammunition storage sites.	I	D	High 2	Be vigilante for PCD wild life at all times during vehicle operations. Maintain posted speed limits. Be extra cautious during dawn & dusk, limited visibility or night time vehicle operations. Do not swerve the vehicle in an attempt to miss the animal. Mandatory use of seat belts for operator and or passengers.	I	E	Med 3 De minimis
		Death or permanent total disability.	Vehicle crash due to physiological stress, fatigue.	I	D	High 2	Utilize assistant drivers and work/rest cycles.	I	E	Med 3 De minimis
Exercise Players and Evaluators conducting standard operations	Motor Vehicle Operations under adverse weather conditions.	Death or permanent total disability.	High winds, wet roads, icy or snow pack roads causing loss of vehicle control injuring operator and/or passengers.	I	D	High 2	Drive with extreme caution during high winds or in wet, rainy, icy, or snow conditions. Perform daily (documented) vehicle pre-operations checks. Report defective or damaged vehicle components, equipment items	I	E	Med 3 De minimis

ANNEX Z (HAZARD ANALYSIS) TO PCD CAIRAP

1 OPERATION	2 HAZARD	3 EFFECT OF HAZARD Personnel, Equipment & Facility	4 CAUSE OF HAZARD Condition/Action	5 HAZARD CATEGORY WITHOUT PREVENTIVE MEASURES			6 PREVENTIVE MEASURES	7 HAZARD CATEGORY WITH PREVENTIVE MEASURES		
				HS	HP	RAC		HS	HP	RAC
							immediately for corrective action, and maintenance prior to operation of the vehicle. Mandatory use of seat belts for operator and or passengers. Engage vehicle 4X4 if equipped.			

**APPENDIX 4-5**  
**CHEMICAL ACCIDENT/INCIDENT RECOVERY PLAN**  
**(CAIRA RECOVERY PLAN)**  
**PUEBLO CHEMICAL DEPOT**  
**PUEBLO, COLORADO**



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# **CHEMICAL ACCIDENT/INCIDENT RECOVERY PLAN**

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**July 2013**

PUEBLO CHEMICAL DEPOT  
DEPARTMENT OF THE ARMY

UNCLASSIFIED



# ***SUMMARY of CHANGE***

**Chemical Accident/Incident Recovery Plan**

**June 2013**

**This plan -**

- **Supersedes:  
Chemical Accident/Incident Recovery Plan, dated January 2012**
- **Revised all Division and Office names in accordance with the PCD reorganization dated December 2012**
- **Changed emergency response procedures IAW updated CAIRA, Emergency Response SOPs, and Contingency plans**
- **Revised Table of Contents**
- **Revised text**



**DEPARTMENT OF THE ARMY  
PUEBLO CHEMICAL DEPOT  
45825 HIGHWAY 96 EAST  
PUEBLO, CO 81006**

PCD CHEMICAL ACCIDENT/INCIDENT RECOVERY PLAN

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## 1.0 Introduction

Accidental or intentional releases of a hazardous material or substances (e.g., oil, gas, cleaning solvents), and/or chemical surety materiel can occur without warning, but the type of response needed varies depending on the chemical or materiel released. Hazardous material spills or releases, or a release of chemical agent, can result from accidents or from deliberate acts of terrorism and/or criminal activity.

Spill and mitigation responses for hazardous material or substance releases are detailed in Pueblo Chemical Depot (PCD) Installation Emergency Management Plan, Annex N, and the Resource Conservation and Recovery Act (RCRA) Hazardous Waste Permit, #CO-02-08-08-01, Attachment 4, Sections 4.1, Oil and Hazardous Substance Spill Prevention, Control, and Countermeasures Plan, and 4.2 Installation Spill Contingency Plan (dated 7 Sept 2002 to 7 Sept 2012). These plans are published elsewhere and are not discussed in this document.

The procedures to be followed in event of a spill or emergency that involves mustard agent are described in the PCD Chemical Accident or Incident Response and Assistance Plan (CAIRAP). The CAIRAP covers the policies, plans and procedures that are used prior to a Chemical Accident or Incident (CAI) event, and during the initial response phase of the CAI. This document, the CAI Recovery Plan, describes the policies and procedures to be used during the last phase of the CAI: final cleanup, remediation, and restoration of the site to original its original condition.

## 1.1 Definitions

“Removal” and “remedy”/“remedial action” are precisely defined in the NCP, Section 300.5, and their meanings are set and agreed upon. However, “response”, “re-entry”, “recovery”, and “restoration” are not used with consistency or precision throughout Army guidance and other Federal Emergency Planning documents. To maintain consistency and improve clarity, this CAI Recovery Plan will use the same definitions for these terms as specified in the July 2012 CAIRAP:

- “Response” applies to efforts to react to an accident or incident in order to find hazards and mitigate and/or eliminate their threats to workers and the public. A response is not complete until all hazards have indeed been located and removed.
- “Re-entry” in this plan applies to gaining access to an accident site for the purpose of moving involved munitions to another storage site.
- “Recovery” means to return to the condition that existed before the accident or incident, and
- “Restoration” means a return to a former, original, normal, or unimpaired condition (e.g., restoration of interrupted services or of damaged buildings, equipment, or other infrastructure).

Despite these differences and nuances in meaning, this plan will link “removal” with “response”, and “remedial actions” with “recovery” and “restoration”, in so far as practicable.

## 1.2 Chemical Accidents or Incidents

Initial actions taken in response to a CAI are described in the CAIRAP. The response to a CAI is planned and executed in three phases: the Readiness Phase, the Response Phase, and the Recovery Phase.

The CAIRAP specifies the policies and procedures to be used during the Readiness and Response phases. The Readiness phase is an ongoing, continuous phase that takes place before a chemical event occurs. Before a CAI occurs, emergency response forces prepare and coordinate response plans, establish organizations to execute those plans, train personnel and organizations to the required level of proficiency, evaluate response organization ability to execute plans, and educate the public to the potential threat and emergency response procedures. To help maintain readiness, PCD plans CAI response activities and integrates Chemical Stockpile Emergency Preparedness Program (CSEPP) initiatives.

The Response Phase is initiated at the onset of a chemical event. During this phase, emergency response forces take all actions necessary to gain control of the CAI site, including saving lives, preserving health and safety, and containing and rendering safe hazardous materials and chemical agents. Promoting public confidence in the Army's ability to conduct emergency response operations is also part of the Response Phase. The CAIRAP documents the requirements for this phase.

The CAIRA Recovery Plan is the guidance document for remedial activities at a CAI site. The principal operational goal of the Recovery Phase is to define and delineate remedial action requirements, following the neutralization and removal of chemical surety material and other hazardous materials released during, or subsequent to, the chemical event and to return the chemical accident/incident site to technically achievable and politically acceptable conditions--this includes meeting environmental regulatory requirements and ensuring the health and safety of the surrounding population. Restoration and/or remedial actions are the primary activities conducted during this phase.

It is important to understand that, so long as any hazardous materials remain in the environment, all attempts and actions to remove them are part of the "removal" phase and not part of remedial actions. Because of the very time-consuming administrative burdens that are part of the remedial action process, it is essential not to declare transition to remedial actions and recovery prematurely - that is, before removal has been completed. As a result, there is no single point in time when response actions terminate and recovery phase actions begin--initial responses and incident recovery operations may occur simultaneously.

### **1.3 Recovery Phase**

The recovery phase of a CAI commences with the start of operations to restore conditions at or near the CAI site. This plan includes reentry and restoration of a CAI area and covers the period from when the final actions of the response phase are initiated until the affected area can be re-occupied without protective equipment and with no short- or long-term health risks. This phase includes the initiation of remedial actions, if any are required; and, in coordination with other federal, state and local agencies, conducting an analysis of follow-on assessment activities to support off-post authority decision making. Both Department of the Army (DA) and the United States Environmental Protection Agency (EPA) must approve CAI restoration operations. If DA and EPA do not agree, the EPA has final authority. All remedial action operations must be consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) found at 40 Code of Federal Regulations (CFR) 300, and must be coordinated with other government agencies including the State of Colorado and local governmental entities.

Recovery team membership will be established during the later stages of response to a CAI. Primary and alternate team members will be appointed by the PCD commander for all emergency response positions and each assigned person will be under the supervision of their designated team captain or leader for the duration of the CAI emergency response support. The PCD Fire Chief is the On-Scene Incident Commander (OSIC), and will be responsible for coordinating the response and executing plans in the field. PCD recovery operations will be conducted in accordance with Army Regulation (AR) 50-6, DA Pamphlet 385-61, and DA PAM 40-173, 40 CFR 300 and AR 200-1.

The PCD Commander is ultimately responsible for conducting remedial action and restoration operations during a CAI and subsequent remedial operations in accordance with the NCP. An Initial Response Force (IRF) will be stood up at the beginning of a CAI event and may continue until recovery is complete. The IRF will stand-down their response elements only when response actions are completed.

Monitoring will continue during removal and recovery/remedial action activities to ensure that all hazardous materials are found and removed, and that public access areas remain “clean” long-term. The Environmental Management Office (EMO) will advise the PCD Commander of proper procedures and steps to take during remedial action operations to comply with applicable, relevant, and appropriate environmental requirements.

### **1.4 Authority**

The Commander, PCD, shall be the commander and federal On-Scene Coordinator (OSC) for all releases of chemical agents on PCD. The OSC directs response efforts and coordinates all other efforts at the scene of a discharge or release. The role and general responsibilities of the OSC are delineated under NCP §300.120. The PCD Commander may delegate duties as necessary to other recovery personnel.

When a chemical release is strictly from a Department of defense (DoD) facility, the DoD agency has the lead. In the unlikely event that PCD releases agent to the waters of the US, as defined in the Clean Water Act (CWA), the lead agency will be the Environmental Protection Agency (EPA). In all cases, The US Army Corps of Engineers will provide assistance to active Army installations conducting chemical agent cleanup operations. Subject matter experts will advise the PCD commander as to the appropriate classification of the CAI remedial site and appropriate supporting agencies, but the OSC determines whether or not a CAI site restoration will be conducted as a Response Action under CERCLA, 42 USC 9601 et. seq., or by agreement or permit (e.g., the RCRA permit).

Site evaluations for recovery actions should be conducted with the PCD response teams after the CAI has been contained, covered with plastic sheeting, and decontaminated if possible and after personnel in the area have been evacuated. Spill and recovery operations involving mustard agent will be conducted IAW applicable existing standing operating procedures (SOPs), PCD regulations (PCD-Rs), and DA Pam 385-61. In the absence of an applicable existing SOP and as requirements dictate, a recovery-specific SOP may be developed prior to initiating extended recovery operations.

## **2.0 Site Description**

PCD is located in Pueblo County, in the southeastern portion of the State of Colorado and east of Pueblo, Colorado. The population centers nearest PCD are the town of Avondale, the Transportation Technology Center, and the Airport Industrial Park. The depot is located on approximately 23,000 acres of rolling prairie north of the Arkansas River. According to the United States Census Bureau, in 2012 the estimated population of Pueblo County was 160,852, and in 2011, 107,577 persons lived within Pueblo city limits.

### **2.1 Munitions Stored at PCD**

The Munitions Storage Area is protected by a double row of fencing. All munitions are stored in covered storage structures called igloos. The minimum distance from an igloo to a depot boundary is 0.43 miles, which corresponds to the distance from any igloo in the northernmost section of the Chemical Munitions Storage Area to the northern boundary of the depot.

At one time, PCD stored 8.3 percent of the original (31,500 tons) unitary chemical munitions stockpile. There are three types of munitions stored at PCD: 155mm and 105mm projectiles and 4.2-inch mortars. These munitions contain chemical agents HD or HT, which are blister agents also known as mustard.

### **2.2 Depot Mission**

PCD's current mission is the safe storage and protection of the chemical weapons stockpile and preparing for depot closure under Base Realignment and Closure (BRAC). PCD is also the location of Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP), a facility built to demilitarize mustard-containing munitions and render them inert.

### **2.3 Meteorological Data**

The climate in the PCD area can be characterized as dry and continental, typified by low humidity, abundant sunshine, low precipitation, and large diurnal temperature fluctuations. Temperatures above 90°F are very common, and temperatures above 100°F occur. The average annual precipitation is about 11 inches, most of which falls from mid-spring through mid-fall as precipitation from thunderstorms. Snowfall may occur from fall through winter, and temperatures below 0°F occur occasionally.

The wind direction near the Munitions Storage Area follows both a seasonal and a diurnal pattern. Strong winds usually blow from the north and west-northwest and are most common in late winter and early spring. Diurnal variations in wind direction occur throughout the year. Usually an up-valley prevailing wind from the east-southeast occurs during the day, and a down-valley wind comes from the west at night.

### **2.4 Topography**

Except for the southeast portion of the depot boundary, PCD is characterized by low topographic relief, with terrain sloping generally downward to the east. Because of the absence of distinct topographical features, terrain would have only a minor influence on the dispersion of a chemical agent vapor plume.

The Arkansas River is located several miles south of the Munitions Storage Area. The small water surface area of the river and the terrain elevations are not significant enough to affect general wind patterns, except in the immediate area of the river. Because of its large distance from the Munitions Storage Area, the river is expected to have minimal impact on a chemical plume.

## **2.5 Natural Resources at PCD**

A complete and detailed description of the natural resources contained within PCD's boundary is available in the *Pueblo Chemical Depot Integrated Natural Resources Management Plan and Environmental Assessment* (INRMP). Jointly published by the depot's EMO and the U.S. Fish & Wildlife Service, the INRMP provides a multi-year plan for integrating natural resource management with the depot's military mission.

## **3.0 Description of Hazards**

Chemical agent may be released due to leakage from aging munitions or by accident while munitions are being transported to and from igloos or facilities. Agent releases could be created by such events as munitions tipping over, forklift accidents, chemical spills, fires, or explosion.

Although liquid releases of agent will typically be limited to within PCD boundaries, explosions, fires, and high temperatures or windy conditions could result in a vapor cloud that increases the distance of the downwind hazard. However, under all but the most severe chemical events (i.e., events with consequences in excess of the MCE for PCD's current storage mission), it is unlikely that local communities and facilities will be affected by a CAI release.

## **4.0 Roles and Responsibilities**

This section describes the roles and responsibilities of essential PCD staff during recovery operations. Additional staff may be required during recovery operations depending upon the remedial requirements of the site.

### **4.1 Installation Commander**

The PCD Commander is the DoD OSC. The Commander is authorized by Headquarters, Department of Army (HQDA) to represent the Army at the scene of the release and has the authority to command and control all response and recovery elements. Response duties are detailed in the CAIRAP. Recovery phase responsibilities are defined below:

- As the OSC, the PCD Commander: directs (as authorized by the NCP at 40 CFR 300.322) private, state, or federal actions to remove the discharge or to mitigate or prevent the threat of discharges posing or potentially posing a substantial threat to public health or welfare.
- Notifies and consults with appropriate local, state and federal agencies.
- Directs recovery and remediation efforts.
- Determines whether CAI site remediation requirements are to be performed under CERCLA or RCRA regulations after consultation with appropriate local, state and federal agencies.
- Collects and documents factual information concerning the discharge or release, including, but not limited to, the following:

## PCD CAIRA Recovery Plan

- source and cause;
  - identification of potentially responsible parties;
  - nature, amount, location, direction, and time of discharge;
  - pathways to human and environmental exposure;
  - potential impact on human health, welfare, and safety;
  - potential or actual impacts to the environment, natural resources, and property;
  - priorities for protecting human health and welfare and the environment;
  - and estimated cost of the response.
- Determines whether removal or remedial actions are necessary.
  - Maintains official records of all decisions and actions taken.

Operational command of Army forces or elements remains under the appropriate Army commander throughout recovery operations. Long-term protective actions will be identified, coordinated, and implemented, and the IRF Commander must continue to assist in protecting the public from chemical and any other hazards or damage resulting from the recovery operations and remedy. Nonessential protective measures will be terminated by the IRF Commander as operational conditions permit. The OSC will determine when the IRF can stand-down once response activities are complete.

### **4.2 Installation Deputy Commander**

The Installation Deputy Commander is second in command and directly responsible for operations and support under the direction of the Installation Commander. In the absence of the PCD Commander, the PCD Deputy Commander (or other delegated and trained staff member) shall be designated as Deputy OSC in accordance with (IAW) the Emergency Response Duties memorandum.

The Installation Deputy Commander's primary interface is with higher headquarters and with outside agencies not on-site. The Deputy Commander will coordinate with the Operations Section Chief, Planning Section Chief, Logistic Section Chief and Finance & Administrative Section Chief to ensure operations are effective, verify all suspenses are met, and coordinate the accommodation of installation evacuees.

#### **4.2.1 Chief of Staff**

During CAI Recovery operations, the Chief of Staff is responsible for directing and coordinating required support and assistance from the Public Affairs Office, Chemical Surety and Compliance Office, Budget and Human Resource Office, Safety and Occupational Health Office, and the Publications Management and Document Control Office. Although these organizations play a substantial role during a CAI event and the initial response, during the recovery phase, their support is only required on an as-needed basis. The EMO, with regulatory concurrence, will identify and communicate to the Chief of Staff, or appropriate delegate, specific organizational support requirements as remedy operations progress.

#### **4.2.1.1 Public Affairs Officer**

The PCD Public Affairs Officer (PAO) is responsible for communicating with the public or media during a CAI Response and the Recovery Phase. The PAO evaluates probable reactions from the media and public. Additionally, the PAO, acting under the direction of and in concert with the PCD Commander, is responsible for the following:

- Release appropriate information to the news media after review and approval by the Commander;
- Maintain effective relations with local and state officials and appropriate civilian agencies.

#### **4.2.1.2 Budget and Human Resource Office**

The Budget and Human Resource Office (BHRO) provides the funding and financial backing for a CAI recovery event. All cleanup and remedial activities must be funded before work begins. EMO will work with BHRO personnel to assure funding is available to cover recovery operation expenditures

#### **4.2.1.3 Safety and Occupational Health Office**

During recovery operations, Safety and Occupational Health (SOH) personnel will:

- Monitor procedures in the recovery process and provide technical advice and guidance for the safety of personnel.
- Advise the Commander and Operations Center immediately in the event of an unsafe or potentially unsafe act, procedure, or condition.
- Assist in post-event investigation.
- Verify proper use of Personal Protective Equipment (PPE).
- Make necessary immediate and follow-up safety reports. Safety reports require concurrence of the Chief of Chemical Operations, the Chief of EMO, and the approval of the Commander.

#### **4.2.2 Directorate of Mission Operations**

The Directorate of Mission Operations is responsible for providing coordination and assistance to recovery operations by the Division of Chemical Operations, the Plans, Operations and Training Division, Ammo Surveillance Office, and Treaty Compliance Office. During the CAI recovery, support and assistance from these groups is on an as-needed basis. EMO will coordinate necessary resources and activities with the Director of Mission Operations.

##### **4.2.2.1 Ammunition Surveillance Office**

The Ammunition Surveillance Office (ASO) personnel perform many functions that include, but are not limited to, assessment of munitions serviceability, implementation, assisting and monitoring of regulatory explosive and chemical safety programs, technical assistance to the Surety Officer and Commander, assignment of decontamination certification, and verification of chemical surety materiel destruction or demilitarization. ASO will:

- Provide technical aid onsite for CAI investigations.

- Advise on technical matters affecting explosive safety.
- Ensure operations comply with explosive safety regulations.
- Verify that the proposed method of recovery/decontamination is compatible with current DA guidance.
- Ensure overpack containers have a current inspection and test.
- Ensure operations involving handling, storing, shipping, maintenance, and destruction of ammunition and explosives are conducted safely and in compliance with written procedures.
- Ensure transport vehicles used for transportation of ammunition and explosives are safe, are suitable for such use, and have a current inspection. Ensure only CSM qualified personnel, to include the Explosives Ordnance Detachment (EOD), Technical Escort Unit (TEU), and certified DA civilian members of the IRF, perform the recovery operations of CSM munitions or containers.

#### **4.2.2.2 Chief, Chemical Operations Division**

The Chief of Chemical Operations provides immediate CAI field response and oversight to accomplish initial entry, agent containment, decontamination, and initial safety functions. The Chief ensures that all events causing a CAI and all actions taken to control, confine, and neutralize the situation are documented and recorded and provided to the PCD Document Tracking Center (DTC). The Division has trained personnel and monitoring equipment that can be utilized in the recovery phase of the operation.

#### **4.2.2.3 Plans, Operations and Training Division**

Personnel from the Plans, Operations, and Training Division (POTD) support response to, and recovery from, a CAI. POTD also supports recovery field operations from the PCD Operations Center (OC). OC Hazard Analysts produce chemical hazard plots, monitor recovery activities, provide periodic meteorological updates, and document significant field activities during recovery operations. All documentation provided by the OC must be tracked and entered into the DTC.

### **4.2.3 Directorate of Base Operations**

The Directorate of Base Operations provides CAI recovery phase support through the Logistics Division, the Division of Public Works (DPW), the PCD Fire Department, and the Security and Law Enforcement Division.

#### **4.2.3.1 Logistics Division**

Personnel from the Logistics Division ensure all equipment to be used in a CAI is in proper working order and available to support recovery and remediation of contaminated soils and materials. Equipment such as a backhoe, a tractor, a grader, cranes, forklifts, dump trucks, and fire department equipment may be required during remedial activities. Small items such as shovels or gloves can also be obtained from the Logistics Division. All equipment that becomes contaminated during recovery and remediation must be decontaminated using locally approved procedures and current accepted decontamination procedures, or be disposed of as waste in

accordance with DA Pam 385-61, Chapter 5. Waste associated with chemical agent facilities and operations will be managed, stored, and shipped in accordance with applicable federal, state, or local laws and regulations, and must not be released from government control.

#### **4.2.3.2 Division of Public Works**

DPW provides personnel and services to assist in a CAI event on an as-needed basis. DPW personnel request and obligate funding necessary to cover recovery operation expenditures.

#### **4.2.3.3 Security and Law Enforcement Division**

During recovery operations, Security and Law Enforcement personnel are responsible for the following specific actions:

- Assess the situation and determine security requirements.
- Control entry into the recovery site, seal off roads, and establish traffic control points (if necessary).
- Perform a running count of personnel entering/exiting recovery site.
- Maintain mutual assistance agreements with local law enforcement agencies.

#### **4.2.3.4 PCD Fire Department**

During recovery operations, PCD fire personnel are responsible for the following specific actions:

- Extinguish fires within PCD boundaries. The Fire Chief or Senior Fire Officer is responsible for all fire-fighting operations.
- Recall off-duty fire fighters if necessary to protect PCD while on-duty fire fighters respond during the recovery process.
- Maintain mutual aid agreements with the Transportation Technology Center, the Pueblo County Rural Fire Department, and local Fire districts and departments.

#### **4.2.4 Environmental Management Office**

The Chief, EMO provides planning and technical assistance during recovery operations. EMO staff plan the remediation, identify materials to be used in the remediation process, and provide equipment such as drums, containers, and spill kits. EMO establishes storage or staging areas for recovered material (if needed) with the concurrence of the Commander, the Safety and Occupational Health Office, and the Chief of Chemical Operations. EMO also makes necessary arrangements for long-term storage for larger spills, if practical.

EMO personnel work with the Commander to ensure site restoration plans and actions comply with the appropriate standards, and ensure the National Response Center (NRC), EPA, and the Colorado Division of Public Health and Environment (CDPHE) have been notified.

Responding and recovering from a CAI requires a high level of regulatory involvement and documentation. EMO is responsible for

- Assessing the extent of contamination at the CAI location and preparing an estimated impact report of the contamination to public facilities;
- Coordinating recovery operations with state, federal, and local officials to comply with appropriate environmental requirements;
- Developing and maintaining the administration record and storing documentation to comply with Federal and State regulations;
- Providing document control through the DTC;
- Preparing all required environmental reports, including CAI restoration and remedial work plans, site investigation documents, and any other required documents.

### **4.3 External Remedial Support**

In the unlikely event that a CAI event cannot be handled by solely by PCD personnel, or agent is dispersed beyond the depot boundaries, the OSC can request support from local emergency response personnel from the City of Pueblo, Pueblo County, Colorado state agencies, and other federal agencies (e.g., Federal Emergency Management Agency (FEMA)). Most often, incidents are managed effectively at the local level and remedial activities are coordinated with local and state regulatory personnel. However, some incidents that may require a collaborative approach that includes personnel from:

- Multiple jurisdictions,
- A combination of specialties or disciplines,
- Several levels of government,
- Nongovernmental organizations, and
- The private sector.

In these instances, the National Incident Management System, or NIMS, provides the foundation needed to ensure that diverse organizations can work together. NIMS integrates best practices into a comprehensive, standardized framework that is flexible enough to be applicable across the full spectrum of potential incidents, regardless of cause, size, location, or complexity. Using NIMS allows diverse organizations to work together to prepare for, prevent, respond to, recover from, and mitigate the effects of incidents.

NIMS is a dynamic program with a consistent, nationwide, systematic approach. NIMS represents a core set of doctrines, concepts, principles, terminology, and organizational processes that enables effective, efficient, and collaborative incident management. Building on the foundation provided by existing emergency management and incident response systems used by jurisdictions, organizations, and functional disciplines at all levels, NIMS integrates best practices into a comprehensive, standardized, framework. These best practices lay the groundwork for the components of NIMS and provide the mechanisms for the further development and refinement of national standards, guidelines, protocols, systems, and technologies.

## **5.0 Health and Safety**

Personnel responding to hazardous material incidents and CAI may encounter a wide range of physical and chemical hazards. The United States Occupational Safety and Health Administration (OSHA) regulations govern health and safety during hazardous waste operations and during emergency responses to hazardous substance releases (29 CFR 1910.120). Other documents that govern the recovery operations and health and safety include (but are not limited to) DA PAM 385-61, AR 385-10, AR 50-6, PCD Installation Emergency Management Plan, PCD SOP 302(Emergency Response), PCD RCRA Hazardous Waste Permit, and the CAIRAP. To ensure the safety of recovery personnel, recovery operations will be conducted in accordance with these documents and procedures.

In absence of an applicable existing SOP and as requirements dictate, a recovery-specific SOP may be developed prior to initiating extended recovery operations. Additionally, depending upon the magnitude of the CAI and the recovery efforts, a site-specific safety and health plan may also be developed.

### **5.1 Medical Surveillance Program**

In compliance with applicable OSHA requirements and IAW DA PAM 385-61, PCD personnel involved in field recovery operations are medically screened prior to their deployment to the field. The following activities are components in PCD's medical surveillance program:

- Pre-employment medical examinations to establish the individual's state of health, baseline physiological data, and ability to wear personal protective equipment.
- Periodic medical examinations performed annually or more often as determined by the Installation Competent Medical Authority.
- Termination examinations conducted at the end of employment.
- Permanent maintenance of all personnel medical records.

### **5.2 Emergency Medical Care and Treatment**

Personnel involved in recovery operations at PCD, at a minimum, receive the following emergency medical training:

- Basic first aid and emergency lifesaving (cardiopulmonary resuscitation - CPR)
- Annual refresher training for first aid and emergency lifesaving (CPR)
- Limited emergency medical procedures

### **5.3 Health and Safety Training**

All personnel who may be involved in the recovery process and who could be exposed to hazardous substances or other health hazards receive health and safety training IAW OSHA requirements as delineated in 29 CFR 1910.120, *Hazardous Waste Operations and Emergency Response* (HAZWOPER) (specifically § (q)(6)). PCD personnel meeting the above criteria have completed a 40-hour HAZWOPER training course, and an 8-hour annual refresher course. In addition, supervisory personnel must complete at least eight additional hours of specialized training on such topics as the depot's safety and health program, spill containment program, and

health hazard monitoring procedures and techniques. Only properly trained and qualified personnel will be involved in recovery operations.

#### **5.4 Personal Protective Equipment**

An assessment of the recovery effort will be conducted to determine the required PPE needed prior to implementing operations. Proper PPE to be worn by individuals responding to the cleanup and recovery will be coordinated through the Operations Center with guidance from EMO, Safety and Occupational Health Office, Industrial Hygienist, ASO, and the Fire Department. Approval authority for the required PPE level is the Commander. All personnel will be properly trained and qualified prior to wearing PPE.

#### **6.0 Sampling Procedures**

Environmental sampling is used to determine where agent has been released and deposited so that it may be removed, destroyed, or quarantined and to determine whether and when people may safely return to their workplaces or homes after an evacuation. In areas where no contamination is found, restrictions will be lifted and arrangements will be made for evacuees to return as soon as possible. Decision-makers and planners should understand that obtaining accurate and reliable sample results is paramount. Sampling must be conducted in accordance with applicable federal, state, and county regulatory standards.

The objective of this section is to present a method by which an accident-specific sampling plan can be generated when required. Having an approved sampling methodology in place will reduce the preparation time of an accident-specific plan.

#### **6.1 PCD Daily Operations Support**

The PCD Operations Center (OC) supports daily operations by identifying the predicted downwind hazards associated with each day's operations, and ensuring those downwind hazard predictions and forecasted weather are coordinated with Pueblo County Emergency Operations Center (EOC) and the Colorado Division of Emergency Management. Before recovery and remedial operations at a CAI site, the following activities occur:

- Checks of critical communications and decontamination and detection equipment are completed prior to the start of any operations involving toxic chemical munitions.
- Operations to be conducted are identified.
- Downwind hazard distances for planning operations and determining whether operations may proceed are generated by approved hazard prediction software and techniques.
- Meteorological data and forecasts are evaluated to determine the Operation Control Point (OCP) and emergency response and evacuation routes to be used in the event of a CAI.

##### **6.1.1 Factors Affecting Downwind Hazard.**

Depending on the circumstances, the downwind hazard caused by a CAI can change dramatically. Factors contributing to the distance of the downwind hazard associated with a particular CAI are:

- *Type of Agent Released:* PCD stores vesicant, or blistering, agents HD and HT. Different types of chemical agents have differing vapor pressures (HD and HT MSDS). The more volatile the agent, the greater the distance associated with the downwind hazard.
- *Structure of the munitions and/or containers:* Agent can be released from the munitions' casing either by failure of the casing or by detonation.
- *Type of Release:* Chemical agents can be released during a spill, fire or explosion. The amount of heat or explosive energy available to vaporize agent and/or generate aerosols and lift a plume into the atmosphere affects the distance of the downwind hazard.
- *Duration of Release:* For agent releases involving fires and evaporative emissions from puddles, the quantity of agent released to the atmosphere depends on the duration of the release. The longer the duration, the more agent released, and the more agent released, the greater the downwind hazard.
- *Meteorological Conditions:* The wind direction, wind speed, humidity, and mixing height all contribute to the distance of the downwind hazard. Differing meteorological conditions can have vastly differing effects on the distance associated with the downwind hazard.
- *Size of the Contaminated Area (for Spills):* When the CAI involves a spill, the larger the area of the spill, the greater the amount of agent that could be released into the air and the greater the downwind hazard distance.

### **6.1.2 Assumptions Affecting Downwind Hazard Factors.**

The downwind hazard factors require the following assumptions to facilitate development of a sampling plan:

- *Affected Area:* The affected area is contaminated either directly by liquid agent or indirectly by vapor and aerosol/particulate deposition. The area contaminated by liquid deposition will be readily discernible, while the area potentially contaminated by vapor and aerosol/particulate deposition will not. The area affected by vapor and aerosol/particulate deposition will be generally defined by the plume path projections generated by dispersion modeling. Sampling teams, deployed to the field, will approximate the affected area and the distance of the downwind hazard through sampling results.
- *Liquid Deposition:* Liquid contamination is not expected outside the Chemical Munitions Storage Area. Areas contaminated by liquid deposition will be known because they are located at the source of the agent release. These areas will have a very high level of contamination. Areas exposed to liquid deposition will be sampled to determine the nature and extent of contamination, to verify the effectiveness of removal procedures, and to determine the requirements for further remediation.
- *Vapor Deposition:* The areas contaminated by vapor deposition may be very large, and will require sampling of various environmental (and architectural) media. The purpose of this sampling is to determine the locations (hot spots), and levels of contamination caused by vapor deposition prior to any remediation efforts.
- *Surface Contamination:* If possible, sampling of environmental media following a CAI should occur in a timeframe such that migration of agents from the surfaces onto which they were deposited into the subsurface strata will not have occurred.

- *Sample Priority:* Sampling efforts will be prioritized depending on the extent/type of the CAI.

## 6.2 Sample Locations and Densities

The following procedure is to be used to determine where and how many samples should be taken following a CAI:

- *Determine the Boundaries of the Affected Area:* Determine approximate boundaries of the affected area by reviewing the downwind hazard area plot generated by the OC, field indicators (dead animals or unexplained discolored vegetation), and/or plume transit models.
- *Determine Areas of Liquid Deposition:* Categorize regions within the actual affected area by the type of deposition that has occurred. Areas of liquid deposition will be those where agent spilled onto the ground from a leaking munition or the area surrounding the point of detonation or burning of ammunition.
- *Determine Differing Land Uses:* Within the affected area, identify and categorize areas based on land use.
- *Determine Size of Differing Land Use Area:* Determine the size of each land use class in acres.
- *Determine Number of Samples:* Use Table 1 (see Appendix A) to determine the sample density based on the land use and the method of contamination deposited. Divide the area for each land use by the appropriate sample density.
- *Determine Sample Locations and Grid Spacing:* Grid spacing for each differing area of land use within the actual affected area can be determined by using Table 2 (see Appendix A).

An example calculation showing how to determine sample locations and density for CAI recovery operation is provided in Appendix B.

The sampling teams will ensure that the sample points are not in the shadow of any objects in the prevailing wind direction at the time of the CAI. The area should be open to the sun, precipitation, and wind. Avoid areas sheltered by vegetation, landscape, and manmade structures. The goal is to sample from a location open to particulates settling out from the air. The actual sample collection point will be as close as possible to the proposed location.

The immediate area from which the sample is being taken and other pertinent sample information will be recorded in a logbook. The sampling points will be located using a geographic positioning system (GPS) or best possible map description and recorded

Samples will be collected from required media using the procedures described in Appendix C. Samples must meet the collection criteria required by the State of Colorado, and US EPA, and quality assurance and quality control criteria as specified by regulatory requirements.

## 7.0 Notifications

Notification requirements are established in accordance with the CAIRAP. Teams will coordinate with the OC to monitor the recovery operations and progress. The OC Environmental Representative will prepare the NRC Report (found and submitted on-line at <http://www.nrc.uscg.mil/nrchp.html>) and the Spill Report-Other OC representatives will prepare

other required reports. All required documents will be tracked in the DTC by EMO. A list of organizations that may be notified and coordinated with during recovery operations is found in Appendix G.

### **7.1 Small Spills (110 Gallons or Less)**

The most probable event at PCD during routine operations is a spill during movement or transportation of chemical rounds from one igloo to another, while investigating leaking munitions, or movement for possible reconfiguration. At any one time, the maximum quantity that can be transported is four pallets (192 rounds) of 4.2-in mortars, which is less than 110 gallons of agent.

### **7.2 Large Spills (More Than 110 Gallons)**

In the event of a large spill or explosion where a large area has been contaminated and PCD does not have the capability to recover for reentry, PCD will follow the procedures outlined in the CAIRAP for requesting assistance. Assistance requested may include EOD support, an Augmentation Force to support activities, and/or medical assistance through Medical Department Activity (MEDDAC).

When practical, steps shall be taken to cover the affected areas with an agent-resistant liner and to surround the spill with absorbent material such as pigs. Control of access (e.g., placement of roadblocks or barricades) into the affected area must be established in order to prevent risk of further exposure to human health or the environment. Notification procedures in accordance with the CAIRAP will be implemented.

## **8.0 Remediation and Site Recovery Operations**

The recovery phase of a CAI begins during the response phase, after the injured and all personnel at risk have been removed to a location of safety and the accident site has been stabilized (leaking munitions have been covered, and potentially compromised munitions have been rendered safe.) The recovery phase continues until the affected area has been returned to a state where it may be re-occupied without protective clothing and the risk to human life and health has been mitigated.

### **8.1 Remedial Operations**

The primary goal of remedial operations is to return the CAI site to technically achievable and acceptable conditions. Cleanup standards will be determined in accordance with applicable federal, state, and local regulations and in coordination with the proper authorities. The principle objective of remediation is removal of the hazard to a level where unrestricted access is permitted and the resumption of use of the affected area is accomplished.

### **8.2 Removal of Contaminated Soil and Debris**

After hazard evaluations have been determined and sampling of the affected area has been completed, the decontamination and support teams can begin removal and containerization of contaminated soils and other materials associated with cleanup operations, such as PPE, equipment, or decontamination water. Equipment such as shovels or rakes will be available from the PCD tool crib for small spills. Heavy equipment such as a front-end loader, backhoe, or dump truck is available for larger spills. Contaminated concrete will be decontaminated using a

High Test Hypochlorite (HTH) or bleach solution. As long as the concrete can be decontaminated such that monitoring results are negative for agent, it will not be removed. All removal operations procedures will be in accordance with PCD SOP *PU-0000-M-302, Emergency Response*.

### **8.3 Transportation and Storage**

The containerized (drummed) material will be transported in accordance with PCD SOP *PU-0000-M-302, Emergency Response*. If the amount of contaminated soil does not exceed permit requirements, the material will be stored in a permitted igloo as directed by EMO. If quantities exceed permit requirements, EMO will request an emergency storage permit from the state. EMO will identify storage or staging areas for temporary storage of the drums with concurrence from the Chemical Operations Division and the Fire Department, until an appropriate site can be permitted for long-term storage. EMO will coordinate the request with appropriate federal, state, and local authorities and obtain all required permits.

### **8.4 Confirmation Sampling/Analysis**

Confirmation sampling and analysis of the area are performed by Chemical Operations Division personnel. Sample analysis is accomplished using multiple methodologies, such as Depot Area Air Monitoring System (DAAMS) IAW SOP *PU-0000-W-465, Toxic Chemical Laboratory Analytical Operating Procedures*, or Miniature Continuous Air Monitoring System (MINICAMS) IAW SOP *PU-0000-R-491, Near Real Time Monitoring Systems Technical Operating Procedures*.

### **8.5 Completion Report**

Following completion of the recovery operations, EMO will prepare a completion report in coordination with the other PCD divisions and offices, to include a summary of the CAI, actions taken, sampling events and results, and conclusions. All documentation will be entered into DTC by EMO personnel to maintain the administrative record in accordance with legal and regulatory requirements

PCD CAIRA Recovery Plan

The proponent of this manual is the Environmental Management Office, Pueblo Chemical Depot. Users are invited to send comments and suggested improvements to: Pueblo Chemical Depot, Environmental Management Office, 45825 East Highway 96, Pueblo, CO 81006.

OFFICIAL:

MICHAEL S. QUINN  
LTC, CM  
Commanding

**APPENDIX A  
TABLES**

**Table 1: Prioritization of Sample Gathering and Sample Density Based on Land Use**

Priority	Land Use	Media Contaminated	Type of Sample to be Collected	Maximum Sample Density (ft <sup>2</sup> /sample)	
				Liquid Deposition	Vapor Deposition
<b>1</b>	Residential & Commercial	Soil Water	Surface Surface	40	45,000
				40	45,000
<b>2</b>	Agricultural (Cultivated or Range Land)	Soil Water	Surface Surface, Subsurface	80	90,000
				80	90,000
<b>3</b>	Undeveloped	Soil	Surface	120	135,000

**Table 2: Number of Samples & Sample Location Spacing Based on a Hexagonal Grid Pattern**

	Number of Samples (a)	Distance Between Adjacent Sample Points (b)	Distance Between Successive Rows (c)
1	7	.87r	.75r
2	19	.48r	.42r
3	37	.30r	.26r
4	61	.24r	.21r
5	91	.19r	.16r
6	127	.16r	.14r
7	169	.14r	.12r
8	217	.12r	.11r
9	271	.11r	.095r
10	331	.10r	.086r
11	397	.09r	.079r
12	469	.08r	.072r
13	547	.077r	.067r

Notes:

r = radius

a Number of Samples =  $1 + 2n + 2(n+1) + 2(n+2) + 2(n+3) + \dots + 2(n+n)$

b Distance =  $1/n$

c Distance =  $.886s$

## APPENDIX B

### EXAMPLE CALCULATION

#### DETERMINING SAMPLE LOCATIONS AND DENSITY AT CAI SITE

For the purposes of this example, several assumptions will be made:

1. The contaminated area is a result of vapor disposition.
2. The identity and categorization of land use is cultivated agricultural soil.
3. The size of the sampling area is a circle with a radius of 500 feet (or 1000 feet diameter). The area (A) of this circle is  $\pi r^2$  or 3.14 times 250,000 or 785,398 square feet.

Steps to determine sample location and sample density:

1. On Table 2, find the maximum sample density for cultivated agricultural soil under the vapor deposition column. This number is 90,000.
2. To determine the number of samples, divide the area (785,398 sq. ft.) by 90,000. This equals 8.73.
3. On Table 2 (see Appendix A, Number of Samples Column), select the number of samples that is closest to the number of samples calculated in step 2 (8.73). That number is 7. Therefore, the number of samples to be taken within the 500-foot radius circle is seven (7).
4. Next, on Table 2, refer to the Distance between Adjacent Sample Points column and find the figure that corresponds to the number of samples (7). The figure is 0.87r. The distance between adjacent sample points is 0.87r or 0.87 times 500 feet, which is 435 feet.
5. Then refer to the Distance between Successive Rows column and find the function that corresponds to the number of samples (7). The distance between successive rows is 0.75r times or 0.75 X 500 feet, which is 375 feet.

## APPENDIX C

### SAMPLING METHODOLOGY

The principle objective of recovery is the removal of the hazard to a level where unrestricted access is permitted and the resumption of use of the affected area is accomplished. To ensure that the affected area is no longer a hazard, sampling and monitoring is required during the recovery phase. Depending on the scope of the CAI event, numerous types of monitoring may be used: air monitoring; water sampling (in the unlikely event that a release enters a surface water body); and/or sediment and soil sampling. Samples may also be collected from structures and buildings if exposed to agent. Confirmation samples are collected once the contaminant has been removed from the site and the remedy has been completed.

#### **Air Monitoring**

Air monitoring that is conducted at a CAI recovery site will be in compliance with will be conducted in accordance with PCD R 50-3, Site Specific Monitoring Plan, and PCD SOP PU-0000-R-491. Air monitoring will be performed on an as-needed basis and depends on whether or not personnel may be exposed to the release during the remedial action. Information obtained from monitoring will be used to ensure that PCD cleanup operations are being conducted properly. Monitoring will be performed using instruments selected to detect and quantify the specific chemical encountered at its associated monitoring level. Continuous air monitoring methods are used for both fixed site and mobile air monitoring requirements. All instrumentation used will be as specified in the appropriate Army and PCD regulations and SOPs.

#### Historical Monitoring

At PCD, the Depot Area Air Monitoring System (DAAMS) will be used for historical monitoring purposes. Historical monitoring is performed to measure very low concentrations of airborne analytes within a structure or area. Sampling is accomplished by the collection of an air sample over an extended period of time (usually the duration of a workday) and subsequent analysis is conducted offline. Historical monitoring is designed to trigger activities to investigate the source of contamination that may be found below the quantification limit of the near real-time (NRT) monitor. All historical samples must be analyzed within 72 hours of sampling termination.

#### NRT Monitoring

Near Real Time (NRT) monitoring is conducted in areas where contamination is likely or possible, to determine airborne chemical concentration in the shortest amount of time at the monitoring level, commensurate with engineering controls and worker protection. An NRT monitoring system has the capability to automatically collect, analyze, and report/display the results within 15 minutes when chemicals are present at or above the exposure limit concentration. At PCD, the Miniature Continuous Air Monitoring System (MINICAMS®) will be used for NRT monitoring.

#### Confirmation Monitoring

Confirmation monitoring is performed to validate or invalidate a positive measurement from either an NRT or historical method. Confirmation air sampling is accomplished by collecting an

air sample at approximately the same sample location as the NRT monitor or historical sample location. Confirmation monitoring is used for informational, qualitative, and/or quantification data reporting purposes in the event of a chemical material release.

### **Water Sampling Methods**

Agent in water may result in a surface film or sink to the bottom. When a surface film is suspected or visible, the water surface should be sampled. Otherwise, a water sample should be taken near the bottom of the body of water. All water sample containers will be 40 milliliter (ml) wide mouth glass vials with a Teflon®-lined cap and septum.

#### Surface Water Sampling

Surface-water samples should be collected by lowering an open, pre-cleaned (triple hexane rinsed), glass sample vial horizontally into the water at the designated sample collection point. As water begins to run into the vial, slowly turn the vial upright, keeping the lip just under the surface so that only surface water is collected. Ensure that there are no air bubbles in the sample vial. Lift the vial out of the water, wipe the outside with a disposable wiping cloth (paper towels) and cap the vial. Label the vial, put the vial in a self-sealable plastic bag, and put the container in an ice chest containing ice (to keep the sample at about 4° C). Disposable wiping cloth will be placed in plastic bag for disposition. Sample collection data (e.g., location, date, time, and sampler) should be entered in a logbook and on a chain-of-custody form (DD1222).

#### Subsurface Water Sampling

Water near the bottom of the body of water should be sampled by lowering a sealed vial to the required depth, removing the vial cap, allowing the vial to fill and removing the vial upright from the water. Transfer the subsurface sample into a pre-cleaned (triple hexane-rinsed) glass vial, cap it, label it, and place it into a self-sealing plastic bag and into an ice chest containing ice (to keep the sample at about 4°C). Initial collection vials will be placed in a plastic bag for disposition. The sample collection data should be entered into the field logbook and on the chain-of-custody form (DD1222).

### **Soil and Sediment Sampling**

All soil and sediment samples collected during and after the CAI remedial action will be IAW the PCD Chemical Data Acquisition Plan (CDAP), Revision 3, dated December 2005 and per EMO SOP. The number of samples and their location will be determined by EMO and will be specific to the CAI site. EMO may develop a site Sampling and Analysis Plan if necessary. However, some specific elements of the sampling are detailed below.

The first sampling point will be at the center of the circular area. The next point will be to either side of the center point until the center row is complete. Samples will then be taken along the rows on both sides of the center row until the entire area is sampled.

1. At each sampling point measure off a square 50 centimeters (cm) on a side. The soil to be sampled will all come from a one (1) centimeter depth within this area for this particular point.
2. Mark the ground at the corners of the square with the trowel to serve as reference points.
3. Remove any vegetation, debris, and gravel-size soil from the square with the trowel.

## PCD CAIRA Recovery Plan

4. Scrape the soil from the edges of the square into the middle forming a pile. Be careful not to exceed sampling a depth greater than 1 cm.
5. Scrape up samples with a trowel and put directly into a pre-labeled, self-sealing, plastic bag.
6. Fill the pre-labeled bags  $\frac{1}{4}$  full and seal tightly to eliminate loss of volatiles.
7. Place the bags into an ice chest containing ice (to keep the sample at about 4°C). Sample collection data should be entered in a logbook and on a chain-of-custody form (DD1222).
8. Identify one corner of all soil sample locations on the ground with a wooden stake and florescent flag pin.

### Equipment Needed

The following list of equipment and supplies are typically required to conduct field-sampling activities.

1. Clean (triple water rinsed) stainless-steel hand trowel or spoon
2. Measuring tape
3. 40 ml glass vials with Teflon®-lined cap/septum for water samples
4. Self-sealing plastic (Ziploc™) freezer bags (1-quart size) for water vials
5. Self-sealing plastic (Ziploc™) freezer bags (1-quart size) for soil samples
6. Sample labels
7. Waterproof marker
8. Tape
9. Disposable wipes/towels
10. Ice and ice cooler/ice chest for sample storage
11. PPE will be Level A Protective Ensemble or as deemed appropriate by the OSC.
12. Wooden stakes
13. Caution tape
14. Bleach for cleaning sample equipment
15. Waste containers with hazardous waste labels to collect contaminated samples/equipment
16. Plastic bags to collect sampling waste
17. Chain of Custody Forms (DD1222)
18. Logbook
19. 500-gram scale
20. 50-cm x 50-cm (2500cm<sup>2</sup>) template
21. GPS and/or map

**APPENDIX D  
ACRONYMS**

A	Area
AR	Army Regulation
ATSDR	Agency for Toxic Substances and Disease Registry
BRAC	Base Realignment and Closure
C	Celsius
CAI	Chemical Accident/Incident
CAIRA	Chemical Accident/Incident Response and Assistance
CAIRAP	Chemical Accident/Incident Response and Assistance Plan
CDPHE	Colorado Department of Public Health and Environment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
cm	Centimeter
CPR	cardiopulmonary resuscitation
CRS	Colorado Revised Statutes
CSEPP	Chemical Stockpile Emergency Preparedness Program
CSM	Chemical Surety Materiel
CWA	Clean Water Act
DA	Department of the Army
DAAMS	Depot Area Air Monitoring System
DA PAM	Department of the Army Pamphlet
DFO	Disaster Field Office
DoD	Department of Defense
DPW	Directorate of Public Works
DCS	Document Control System
EMO	Environmental Management Office
EOD	Explosive Ordnance Detachment
EPA	U. S. Environmental Protection Agency
F	Fahrenheit
FEMA	Federal Emergency Management Agency
Ft <sup>2</sup>	square feet
GPS	Global Positioning System
HAZWOPER	Hazardous Waste Operations and Emergency Response
HD	Distilled Mustard or bis(2-chloroethyl) sulfide
HT	Mixture of HD and bis[2-(2-chloroethylthio)ethyl]ether
HTH	High Test Hypochlorite
HQDA	Headquarters, Department of the Army
IAW	in accordance with
INRMP	Integrated Natural Resources Management Plan
IRF	Initial Response Force
JIC	Joint Information Center
MCE	Maximum Credible Event
MEDDAC	U. S. Army Medical Department Activity

## PCD CAIRA Recovery Plan

MINICAMS	Miniature Continuous Air Monitoring System
ml	milliliter(s)
NCP	National Contingency Plan
NIMS	National Incident Management System
NRC	National Response Center
OC	Operations Center
OSC	On-Scene Coordinator
OSHA	Occupational Safety and Health Administration
OSIC	On-Scene Incident Commander
PAO	Public Affairs Officer
PCAPP	Pueblo Chemical Agent-Destruction Pilot Plant
PCD	Pueblo Chemical Depot
PPE	Personal Protective Equipment
QASAS	Quality Assurance Specialist Ammunition Surveillance
R	Regulation
RCRA	Resource Conservation and Recovery Act
RPM	Remedial Project Manager
RRT	Regional Response Team
SARA	Superfund Amendments and Reauthorization Act of 1986
SOP	Standing Operating Procedure
TEU	Technical Escort Unit
TM	Technical Manual
USC	United State Code

**APPENDIX E  
REFERENCES**

- 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response
- 40 CFR 300, Subject: National Oil and Hazardous Substance Pollution Contingency Plan; Final Rule
- 33 USC 1251, et seq. Clean Water Act, 1972
- AR 50-6, Chemical Surety, 28 October 2008
- AR 200-1, Environmental Protection and Enhancement, 13 December 2007
- AR 385-10, The Army Safety Program, 23 August 2007
- Chemical Accident Incident Response and Assistance Plan (CAIRAP), July 2012
- DA PAM 40-173, Occupational Health Guidelines for the Evaluation and Control of Occupational Exposure to Mustard Agents H, HD and HT, 3 June 2003
- DA PAM 385-61, Toxic Chemical Agent Safety Standards, 13 November 2012
- Material Safety Data Sheet, Distilled Mustard (HD), US Army Edgewood Chemical biological Center, 14 February 2013
- Material Safety Data Sheet, Poison (HT), US Army Edgewood Chemical biological Center, 14 February 2013
- Memorandum for all PCD Employees, 2013-0075, Appointment-Emergency Response Duties, 2 May 2013
- PCD Hazardous Waste Management Plan, January 2012
- PCD Integrated Natural Resources Management Plan and Environmental Assessment
- PCD Physical Security Plan, 17 February 2012
- PCD Surety Management Plan, April 2011
- PCD-R 50-3, Site Specific Monitoring Plan, February 2013
- PCD-R 385-507, Prevention of Heat and Cold Related Injuries/Illnesses, July 2012
- PCD SOP PU-0000-M-302, Emergency Response, 25 February 2013
- PCD SOP PU-0000-W-465, Toxic Chemical Laboratory Analytical Operating Procedures, 4 February 2013
- PCD SOP PU-0000-R-491, Near Real Time Monitoring Systems, 25 February 2013
- Resource, Conservation, and Recovery Act, Hazardous Waste Permit, Pueblo Chemical Depot, Permit Number CO-02-08-08-01, 7 September 2012

**APPENDIX F  
COLORADO STATE AUTHORITIES**

The following summary of relevant statutes from the State of Colorado Revised Statutes is extracted from the EPA's *Region 8 Regional Contingency Plan*

**1. State Legal Authorities Related to Spill Response**

(a) Colorado Revised Statutes (CRS), Sections 25-8-601,605,606, and 608 state, in part, that “any person engaged in any operations...which results in a spill or discharge of oil or other substance which may cause pollution of the waters of the state...must notify the Division (Water Quality Division of the Department of Health) of such discharge. The EPA is the OSC for spills that affect waters of the state. Any person who fails to notify the Division shall be punished by a fine of not more than \$10,000 or by imprisonment...for not more than one year or by both. If the Division determines...that there exists a violation...the Division may issue a cease and desist order. The Division may issue orders to any person to clean up any material that...has accidentally or purposely been dumped, spilled, or otherwise deposited in or near state waters that may pollute them. Any person who violates any provisions of any permit...cease and desist order or clean up order shall be subject to a civil penalty of not more than \$10,000 per day for each day during which such violation occurs.”

(b) CRS, Sections 28-2-103 and 105 state, in part, that “Disaster means occurrence or eminent threat of wide spread or severe damage, injury...oil spill or other water contamination requiring emergency action to avoid danger or damage.

In addition to any other powers conferred upon the Governor by law, the Governor may utilize all available resources of the state government as reasonably necessary to cope with disaster emergency...The Division (Emergency Services Division of the Department of Military Affairs) shall cooperate with the federal government and any public or private agency or entity in achieving any purpose of this article and implement programs for disaster provisions, preparation, and response and recovery.”

(c) CRS, 1967 Supp-Sec.5, 100-2-29 and Sec. 6, 100-30 state, in part, that “It is the duty of the State Inspector of Oils, whenever the Inspector has reasonable and probable grounds to believe that a hazardous or dangerous condition exists, due to deterioration of fuel produce storage and piping facilities which are endangering human and environmental life, to...order the person or persons responsible for the hazardous or dangerous condition to take corrective measures within a reasonable period of time to alleviate or eliminate the conditions, and if the measures are not taken within such time, the Inspector may have to alleviate or eliminate the same. Plans for all installations utilizing liquid fuel products and storage containers or...over 1500 gallons... capacity shall be submitted to the State Inspector of Oil for his approval before construction thereof begins. The plan shall include: provisions for extended protection against underground leaks due to corrosion...and high groundwater tables, containment of liquid or fuel in the event of damage to fuel dispensers and intended pumping, and provisions for safety of human and environmental life.”

- (d) CRS, Sec. 33-6-104 states, in part, that “The Division of Wildlife or any officer directed by such division and charged with the enforcement of this title may bring and maintain a civil action to recover possession of any wildlife taken, killed, injured...or recover the value thereof against any person in possession or exercising control over the same.” Sec 33-6-118 states, in part, that “unless permitted by law or by the Division of Wildlife it is unlawful for any person to use toxicants, poisons, drugs, for the purpose of having...wounding, injuring, or harassing any wildlife...any person who violates any of the provisions of this section is guilty of a misdemeanor, and, upon conviction thereof, shall be punished as provided for in Sec. 33-6-127.”

**APPENDIX G  
NOTIFICATIONS/CONTACTS LISTS**

In the unlikely event of a CAI, PCD is responsible for notifying local officials, as well as state and federal agencies. In addition, the Commander, as the Federal On-Scene Coordinator, maintains close coordination with officials at the three levels of government. To facilitate rapid and regular coordination the following contact information must be maintained and periodically verified for accuracy.

**1. Local Official Notification/Contacts List (Area code 719 unless otherwise noted)**

**Pueblo County Government**

Board of Commissioners	583-6000
Emergency Services	911
County Attorney	583-6630
County Coroner	584-9900
County Sheriff	583-6125
Rural Fire	948-4646

**Pueblo City Government**

City Council	553-2655
Airport Administration	553-2760
Fire Department	553-2830
Police Department	553-2538

**Health and Medical**

City/County Health Department	583-4300
Parkview Episcopal Medical Center	584-4000
St. Mary-Corwin Regional Medical Center	557-4000
American Medical Response (Ambulance)	545-1226

**2. State Of Colorado and EPA Notification/Contacts List**

PRIMARY SPILL NOTIFICATION #:	(303) 692-2000
Toll Free 24-Hour	(877) 518-5608
EPA – Region 8	(800) 227-8917
National Response Center	(800) 424-8802



**APPENDIX 4-6**  
**CHEMICAL AGENT ACUTE EXPOSURE GUIDELINE LEVELS (AEGLS)**  
**PUEBLO CHEMICAL DEPOT**  
**PUEBLO, COLORADO**



Table 1. Chemical Agent Air Standards Status Table: Existing and Proposed Standards as of 4/5/03 POC: V. Hauschild

Media- AIR	Standard Name	Population	Exposure Scenario	H/HD/HT	GA (Tabun)	GB (Sarin)	GD/GF	VX	Lewisite	Notes/ Status
Airborne Exposure Limits (AELs) mg/m <sup>3</sup>	IDLH (Immediately Danger to Life/health)	civilian/ DoD worker 30-min	1 time exposure	NA 2 <sup>d,l</sup>	0.2 <sup>a,c</sup> 0.1 <sup>e,n</sup>	0.2 <sup>a,c</sup> 0.1 <sup>e,n</sup>	0.06 <sup>a,c</sup> 0.05 <sup>e,n</sup>	0.02 <sup>a,c</sup> 0.01 <sup>f,h</sup>	NA NA	-- Existing criteria in RED/GREEN are current listed in 1990 and 97 DA pams - the IDLH, WPL, STEL, and GPL values in BLACK are from Final Army technical re-evaluation reports and are currently being staffed (Feb April 03) in the draft Jan 03 revision of DA pams 40-8 and 40-173 (RED values show where changes are to existing values) -- *STEL is new proposed standard not previously established NOTE: CDC had proposed modifications to 11 new nerve agents AELs (in BLACK) in the Federal Register in Jan 8 2002; 67 FR: 894-90 However, the Army non-concurred with the CD modifications (see reference k). As of 4/03 n final CDC position has been documented. - No re-evaluation of Lewisite has been performed. Lewisite values are based on detection limits; no true IDLH exists (AR 385-Table 2-2, 2-3)
	*STEL (Short Term Exposure Limit)	civilian/DoD worker	occasional 15-minute exposure (4x ea day)	0.003 <sup>d,l</sup> 5-min	0.0004 <sup>e,h</sup>	0.0004 <sup>e,h</sup>	0.0002 <sup>e,h</sup>	0.00004 <sup>f,h</sup>	NA NA	
	WPL (Worker Population Limit)	civilian/DoD worker	8-hr, daily/ 30-yr. Time-weighted average 12-hr	0.003 <sup>b,c,g</sup> 0.0004 <sup>d,l</sup> (0.00002) <sup>e</sup>	0.0001 <sup>a,c,g</sup> 0.0001 <sup>e,h</sup>	0.0001 <sup>a,c,g</sup> 0.0001 <sup>e,h</sup>	0.00003 <sup>a,c,g</sup> 0.00003 <sup>e,n</sup>	0.00001 <sup>a,c,g</sup> 0.00001 <sup>f,h</sup>	0.003 <sup>c</sup>	
	GPL (General Population Limit)	civilian population	24-hr/daily, lifetime time-weighted avg.	0.0001 <sup>b,c,g</sup> 0.00002 <sup>d,l</sup>	0.000003 <sup>a,c</sup> 0.000003 <sup>e,h</sup>	0.000003 <sup>a,c</sup> 0.000003 <sup>e,h</sup>	0.000001 <sup>a,c</sup> 0.000001 <sup>e,h</sup>	0.000001 <sup>a,c,g</sup> 0.0000003 <sup>f,h</sup>	0.003 <sup>c</sup>	
NRC/EPA AEGLs mg/m <sup>3</sup>	Acute Exposure Guideline Levels	Emergency/ Accident scenario	1 time exposure :	HD	GA	GB	GD/GF	VX	L	
	AEGL - LEVEL 1 Potential minor discomfort or noticeable effects; reversible	civilian population	10 MIN:	0.40	0.0069	0.0069	0.0035	0.00057	NA	see ref L Final Sulfur Mustard AEGLs have been published by National Research Council (NRC) Committee on Toxicology (COT) (to be available on <a href="http://www.nap.edu">www.nap.edu</a> ) as of 4/03; (Final values include some minor changes those that were initially proposed in the Federal Register in 2000)  (no changes to values in this Table - Sept 02 Table had final values)
			30 MIN:	0.13	0.0040	0.0040	0.0020	0.00033	"	
			1 HR:	0.067	0.0028	0.0028	0.0014	0.00017	"	
			4 HR:	0.017	0.0014	0.0014	0.00070	0.00010	"	
			8HR:	0.0083	0.0010	0.0010	0.00050	0.000071	"	
	AEGL- LEVEL 2 Level where more obvious effects begin; Potentially impacting functional abilities or ability to escape; Potential delayed recovery	civilian population	10 MIN:	0.60	0.087	0.087	0.044	0.0072	"	
			30 MIN:	0.20	0.050	0.050	0.025	0.0042	"	
			1 HR:	0.10	0.035	0.035	0.018	0.0029	"	
			4 HR:	0.025	0.017	0.017	0.0085	0.0015	"	
8HR:			0.013	0.013	0.013	0.0065	0.00104	"		
AEGL - LEVEL 3 Life threatening; Level of potential initial fatalities	civilian population	10 MIN:	3.9	0.76	0.38	0.38	0.029	"		
		30 MIN:	2.7	0.38	0.19	0.19	0.015	"		
		1 HR:	2.1	0.26	0.13	0.13	0.010	"		
		4 HR:	0.53	0.14	0.070	0.070	0.0052	"		
		8HR:	0.27	0.10	0.051	0.051	0.0038	"		
MEGs mg/m <sup>3</sup>	Military Exposure Guidelines (Air)	Effect level	Exposure duration	HD	GA	GB	GD/GF	VX	L	CHPPM-recommended values for certain Force Health Protection applications - Based on AEGLs, plus a MEG for 24-hr exposures (ref m). Considered conservative but appropriate for diverse military population with some genetically susceptible individuals just as in general population - However, additional (military specific) interim toxicity criteria are also available for certain applications (see references n, o)
	** NOTE: refer to AEGLs above; for durations > 24 hrs additional guidelines are provided:	None-minimal	1time -24 hour	(0.003)	(0.0003)	(0.0003)	(0.0002)	(0.000027)	NA	
		None-minimal	See AEGL 1 durations and associated values above values						0.003	
		Significant	See AEGL 2 durations and associated values above values						NA	
	Severe	See AEGL 3 durations and associated values above values						0.003		



**APPENDIX 4-7**  
**(ANNEXES P AND R OF CAIRA PLAN)**  
**CONTAMINATION CONTROL AND REMEDIAL ACTIONS**  
**PUEBLO CHEMICAL DEPOT**  
**PUEBLO, COLORADO**



## CONTAMINATION CONTROL (Annex P Of CAIRA Plan)

1. **SITUATION.** Same as base plan.
2. **PURPOSE.** To provide guidance for contamination control while responding to a chemical event, to provide policy for limiting chemical hazards during a CAI, and to define a coordinated response to contain any hazards spills that occur.
3. **EXECUTION - HAZARD DETERMINATION**
  - a. During the initial assessment of a CAI, the specific chemicals released and the severity of the hazards must be determined. Chemical agent hazards can be identified either by a visual observation of containers, labels, records, etc., or by analytical methods. Additionally, visual observation should be used to detect releases of other materials, e.g., spills of gasoline, diesel fuel, oil, and decontamination materials used by the operating crew, before leaving the CAI site.
  - b. **Containment of Chemical Agent.**
    - (1) If possible, the point source of the chemical agent hazard should be contained as soon as possible (as long as personnel are not endangered).
      - (a) The initial response to a CAI is the responsibility of the operating crew at the site, if it is within their capabilities.
      - (b) In the absence of an operating crew at the site, the Decontamination Team will provide the first response to a CAI, in coordination with the OC and at the direction of the OSIC.
    - (2) **Remedial Action.** See Below

**c. Decontamination Team**

- (1) The Decontamination Team will be the first to enter the accident site area following evacuation of any operating crew members, unless there has been an explosion or there is the potential for explosion. In that case, the initial entry party will be an EOD Team.
- (2) The Decontamination Team will mitigate the spread of hazards as rapidly as possible using the M12A1 Decontaminating Apparatus, plastic covers, spill pillows, and any other means available, with the goal of preventing hazards from (1) traveling beyond the installation boundary and (2) traveling beyond the confines of the CLA.
- (3) The Decontamination Team will remove and containerize contaminated soils and/or solutions, as well as any other materials (PPE, equipment, etc.) resulting from the CAI. This includes not only hazardous materials released during the chemical event itself, but also hazardous materials released during attempts to mitigate the toxic chemical hazard(s) (e.g., decontaminants). Once hazardous materials are containerized, the Decontamination Team will transport the containers with the contaminated materials to the appropriate permitted igloo.
- (4) The PCD Environmental Management Office must be notified when wastes are generated, and will perform the appropriate storage and labeling decision-making.
- (5) For more detailed information on contamination control reference consult the most current versions of **SOP# PU-0000-M-302**

**d. Environmental Representative will:**

- (1) Provide environmental assistance to assess the extent of contamination and determine estimated impact on public facilities, while assuring compliance with appropriate federal and state regulations.

- (2) Identify materials used to concentrate, neutralize, collect, disperse, or remove hazardous substances which may be discharged during response to a CAI.
- (3) Maintain a history of all decontaminating solutions or materials used in response to CAI, and advise the IRFC on efforts to use hazardous decontaminating solutions or materials during the removal process.
- (4) Upon initiation of a chemical event, make necessary immediate and follow-on environmental reports. Reports will not be dispatched without concurrence with the OC Operations Officer and approval by the IRFC.

4. **SERVICE SUPPORT.** Same as base plan.

5. **COMMAND AND SIGNAL**

a. **Command.** Same as base plan.

b. **Signal.** Same as base plan.

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## **REMEDIAL ACTION OPERATIONS (Annex R of CAIRA Plan)**

- 1. SITUATION.** Same as base plan.
  
- 2. PURPOSE.** To define and delineate remedial action requirements, following the neutralization and removal of chemical surety material and other hazardous materials released during or subsequent to the chemical event, to return the chemical accident/incident site to technically achievable and acceptable conditions. The CAIRA Recovery Plan (**Appendix B** of this Contingency Plan) is the guidance document for recovery operations.
  
- 3. EXECUTION**
  - a. Concept of Operations.**
    - (1)** Remedial actions will be conducted only when necessary (e.g., if a long-term assessment and restoration effort is needed). It is important to understand that, so long as any hazardous materials remain in the environment, all attempts and actions to remove them are part of the “removal” phase and not part of remedial actions. Because of the very time-consuming administrative burdens that are part of the remedial action process, it is essential not to declare transition to remedial actions and recovery prematurely – that is, before removal has been completed. Doing so could increase risks to workers and the public by slowing the process of removing remaining hazards. Furthermore, it is possible that complete accomplishment of the removal process will render a remedial action phase unnecessary.
  
    - (2)** The Remedial Project Manager (RPM), if appointed, is ultimately responsible for all remedial action/restoration operations. The DoD shall appoint an RPM responsible for taking all remedial actions pursuant to the National Contingency Plan (NCP). The RPM must secure and approve funding, approve projected remedial/corrective actions, negotiate with local authorities, submit notifications/reports to regulatory authorities and to the public, gain public involvement, and implement response plans. Additionally, the RPM coordinates, directs and reviews the work of other agencies and contractors to ensure

compliance with the NCP, Record of Decision, consent decree administrative order and other agency plans applicable to the response.

- (3) Most remedial action operations are not emergency situations that require immediate action. More likely, remedial operations will be long-term operations that could last from several months to several years.
- (4) If the RPM is not the PCD Commander, the PCD Commander will cooperate with, and give support to, the RPM as much as possible.
- (5) The U.S. Army Corps of Engineers will provide assistance to active Army installations that are conducting chemical agent clean up operations.

#### **4. COORDINATION**

The PCD Commander may require technical assistance for remedial activities. This technical assistance may be provided by the United States Army Environmental Center (USAEC) or by contractors.

#### **5. SERVICE SUPPORT**

In an effort to comply with all federal, state, and local laws and regulations, cooperation between the military and other government agencies is imperative.

- a. All remedial action operations must be consistent with the NCP.
- b. Remedial action operations must also be coordinated with other government agencies including the USEPA, the State of Colorado, and local governmental entities.
- c. The coordinating agencies will depend upon the classification of the remedial site. A determination will be made as to whether to conduct site restoration as a Response Action under CERCLA, 42 USC 9601 et. seq. or by agreement/permit (e.g., the Resource Conservation and Recovery Act (RCRA) permit). When a chemical release is strictly from a DoD facility, the DoD is the lead agency.

- d.** During the remedial action process, the PCD Environmental Management Office will maintain communication with the following:
  - (1) CMA Risk Management and Environmental Office
  - (2) USEPA
  - (3) State of Colorado
  - (4) Pueblo County
  
- e.** The Environmental Management Office will advise the PCD Commander of proper procedures and steps to take during remedial action operations to comply with all environmental regulations including CERCLA, the Superfund Authorization and Reauthorization Act (SARA), the RCRA and the NCP.

**6. COMMAND AND SIGNAL.**

- a. Command.** Same as base plan.
  
- b. Signal.** Same as base plan.

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**APPENDIX 4-8**  
**(ANNEX Q OF CAIRA PLAN)**  
**REMOVAL OPERATIONS**  
**PUEBLO CHEMICAL DEPOT**  
**PUEBLO, COLORADO**

## **REMOVAL OPERATIONS** (Annex Q of CAIRA Plan)

- 1. SITUATION.** Same as base plan.
- 2. PURPOSE.** To identify procedures to remove chemical agent and other hazardous materials resulting from an event involving the discharge of chemical agent to the environment, which may pose potential health threats to people or the environment.
- 3. EXECUTION**
  - a.** The CAIRA Plan provides guidance for overall response to a CAI.
  - b.** Decontamination of the site will be achieved by neutralizing or removing the agent and other hazardous materials involved in the CAI or were used in the response. Detailed decontamination procedures are set forth in the latest revision and change of PCD **SOP PU-0000-M-302**, Emergency Response.
  - c.** All requirements of 40 CFR 300 will be fulfilled.
- 4. COORDINATION.** IAW the NCP, the OSC directs response/removal efforts and coordinates all other efforts at the scene of a release. The OSC for a chemical agent release on PCD is the PCD Commander or his designated representative.
- 5. SERVICE SUPPORT.** Same as base plan.
- 6. COMMAND AND SIGNAL.**
  - a. Command.** Same as base plan.
  - b. Signal.** Same as base plan.

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**APPENDIX 4-9**  
**EVACUATION PLAN AND MAP**  
**CONFIDENTIAL – NOT FOR PUBLIC RELEASE**  
**PUEBLO CHEMICAL DEPOT**  
**PUEBLO, COLORADO**



**APPENDIX 4-10**  
**PCAPP CAIRA RESPONSE (ANNEX V OF PCD CAIRA PLAN) AND PCAPP-EDS**  
**RESPONSE (APPENDIX I TO ANNEX V OF PCD CAIRA PLAN)**  
**PUEBLO CHEMICAL DEPOT**  
**PUEBLO, COLORADO**



## ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

**ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan**

**1. SITUATION.** Same as base plan.

**2. PURPOSE.** This Annex establishes guidelines and responsibilities to be followed in response to a chemical accident or incident (CAI), occurring at the Pueblo Chemical Agent Destruction Pilot Plant (PCAPP) and PCAPP EDS. This Annex applies to all government and contractor employees at the PCAPP and PCAPP EDS sites and all visitors unless stated otherwise. For all PCAPP and PCAPP EDS chemical accidents or incidents, the PCD Commander is the Installation Response Force (IRF) Commander who provides overall command and control of the CAIRA emergency IAW guidelines set forth in AR 50-6. See Annex V-1 for PCAPP EDS information.

**a.** The PCAPP is a Resource Conservation and Recovery Act (RCRA) permitted treatment and disposal facility designed to dispose of chemical agent munitions stored by Pueblo Chemical Depot (PCD). Chemical munitions disposed of at PCAPP contain the blister agent HD and HT.

**b.** During PCAPP systemization, operations and facility closure, the PCAPP Emergency Response Organization (ERO) will respond to emergency conditions resulting from plant upset conditions and other accident/incidents. The PCAPP ERO is composed of distinct and coordinated emergency positions, with support from PCAPP Crisis Management Team (PCMT). These positions and relationships are defined in the PCAPP Emergency Response Plan. The storage and disposal of the chemical munitions are also regulated by Army chemical surety guidelines and reporting procedures for chemical accidents and incidents with the potential to affect the safety and health of personnel, harm the environment, or damage facilities and equipment.

**c.** There may be other hazards associated with CAIs. These are the potential hazards that may have caused the CAI or that may have resulted during the CAI. These hazard conditions include fire, explosions, and structural hazards in or about the incident location. A chemical release or exposure incident should be considered an indicator of a potential multi-hazard event until proven otherwise and the following actions taken:

(1) Ensure the health and safety of personnel within and near PCAPP and protect the environment.

(2) Provide for comprehensive investigation, evaluation, and reporting of all accidents or incidents involving chemical agents.

(3) Minimize damage to facilities and equipment.

(4) Implement responsive and effective procedures to eliminate and remove the source of the chemical event.

(5) Prevent loss, theft, or seizure of chemical agents or munitions.

## ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

d. During a CAI, establish effective response capabilities to the phases of a CAI:

(1) The response phase involves ERO notification, activation, and response to the CAI. The goal of the response is for the ERO to effectively respond to the CAI taking necessary actions to gain control of the CAI.

(2) During the recovery phase, the ERO initiates deliberate, well-planned, and coordinated actions to restore conditions at and in the vicinity of the CAI site to a technically feasible and acceptable state.

### 3. EXECUTION.

a. For all PCAPP chemical accidents or incidents, the PCD Commander is the IRF Commander who provides overall command and control of all PCAPP chemical accidents or incidents.

b. Emergency Response Organization. The PCAPP Emergency Response Organization (ERO) consists of the following:

(1) **PCAPP Emergency Coordinator (EC):** The PCAPP EC is responsible for managing the PCAPP ERO, implementing emergency response activities, and providing PCAPP interface with the PCD Operations Center (OC). The PCAPP EC will report directly to the IRF Commander. The PCAPP EC may delegate responsibilities during a contingency event to the PCAPP Scene Commander, Control Room (CON) Supervisor, and/or other CON personnel. Direction from the CON during a contingency event is the result of PCAPP EC direction or delegation.

(2) **PCAPP Scene Commander (SC):** The PCAPP SC will report directly to the PCAPP EC and acts under his direction. The PCAPP SC will be responsible for the following on-scene (plant) duties: managing the incident, monitoring personnel accountability, and implementing emergency response activities. The PCAPP SC will be either an on-shift PCAPP Area Supervisor or a PCAPP Control Room (CON) Supervisor. Designation of the primary and alternate PCAPP SC will be made daily as part of the Limiting Conditions of Operations (LCOs). The PCAPP SC and will convey information between the PCAPP CON and the emergency response team leaders described below.

(a) PCAPP Decontamination (Decon) Team Leader – The PCAPP Decon Team Leader will report to the PCAPP SC and will deploy the PCAPP Decon Team, manage setup and operation of the on-scene personnel decontamination station, and monitor personnel for signs of illness and exposure. The PCAPP Decon Team Leader will establish a decontamination line upwind from an airborne chemical agent incident. Wind direction indicators will be located throughout the PCAPP grounds to determine the upwind area.

## ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

(b) PCAPP Medical Response Team Leader – The PCAPP Medical Response Team Leader will coordinate with the PCAPP SC and will provide treatment to injured personnel, transport of injured personnel to appropriate medical facilities, evaluate personnel for signs of illness or agent exposure, and provide appropriate medical treatment.

(c) PCAPP Hazmat Team Leader – The PCAPP Hazmat Team Leader will report to the PCAPP SC and will establish and manage spill containment and cleanup.

(3) **PCAPP Medical Response Team:** The PCAPP Medical Response Team Leader will advise the PCAPP Scene Commander and will coordinate the emergency medical response at the PCAPP. Several mutual aid agreements are in place to provide supplementary medical services, if necessary.

(4) **Control Room Supervisor (CRS):** The PCAPP CRS will report directly to the PCAPP EC and will be responsible for monitoring and controlling plant processes, systems, and equipment. During a contingency event, the CRS can also serve as scene commander. The PCAPP CRS also ensures full accountability of all personnel. If, during a contingency event, the PCAPP CRS is not in the CON, a Control Room Operator will fill this position. Additionally, the PCAPP CRS oversees emergency response activities of the following PCAPP ERO members:

(a) PCAPP Operators -- The PCAPP outside operators and PCAPP CON operators will report to the PCAPP CRS and will assist in the evacuation of personnel from the hazard zone. As directed, they also will coordinate first responder efforts, establish a hazard zone perimeter, control the spread of any contamination, and support post incident cleanup activities.

(b) PCAPP Maintenance Supervisor -- The PCAPP Maintenance Supervisor will report to the PCAPP CRS, coordinates plant system and facility maintenance in the event of an emergency, and ensures personnel and material support is available.

(c) PCAPP Area Wardens -- During a CAI emergency incident, designated employees will report to the PCAPP CRS to serve as Area Wardens. They will manage accountability of personnel reporting to the emergency assembly areas.

(5) **PCAPP Environmental Shift Representative (ESR):** The PCAPP ESR will be on scene with the PCAPP SC and is responsible for providing compliance guidance to the PCAPP SC. The PCAPP SC will provide the PCAPP EC with guidance on maintaining compliance with the environmental requirements. The PCAPP ESR may direct specific operating processes and even direct the shutdown or cessation of facility operations if the activity poses an imminent environmental hazard. In all cases, the PCAPP EC must concur and will ensure that the request is both safe and within the operating parameters of the facility.

## ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

**(6) PCAPP-Field Office (FO) Government Shift Representative:** The PCAPP-Field Office (FO) Government Shift Representative will provide technical advice to the PCAPP EC and notify PCAPP-FO management of contingency events. The PCAPP-FO Shift Representative may direct specific operating processes and even the shutdown or cessation of facility operations, if instructed to do so by the PCAPP Site Project Manager, or designee. In all cases, the PCAPP EC must concur and will ensure that the request is both safe and within the operating parameters of the facility.

**(7) PCAPP Safety Shift Representative:** The PCAPP Safety Shift Representative, on scene with the PCAPP SC, is responsible for providing guidance to the PCAPP SC. The PCAPP SC will advise the PCAPP EC and will monitor personnel safety during emergency response efforts, which includes consulting with operations staff on the development of mitigation activities to ensure personnel safety. The PCAPP Safety Shift Representative may direct specific operating processes and even the shutdown or cessation of facility operations if employees are exposed to an imminent safety or health hazard. In all cases, the PCAPP EC must concur and will ensure that the request is both safe and within the operating parameters of the facility.

**(8) PCAPP Shift Manager:** The PCAPP Shift Manager, in coordination with, or acting as, the PCAPP EC is responsible for directing PCAPP emergency response operations from a location where he/she can best command and control those operations. In most cases, this will be the PCAPP CON located in the Control Support Building (CSB). During PCAPP CAIs, the Shift Manager will:

- (a) Ensure notification of CAIRA emergency within 5 (five) minutes to the PCD OC.
- (b) Ensure the PCAPP ERO is activated to respond to CAIRA emergency.
- (c) Establish and maintain a command post (Control Room/CON) to control CAIRA operations.
- (d) Evaluate CAI and develop a course of action and emergency response action plan.
- (e) Determine what PCAPP emergency response resources are required to effectively respond to the CAIRA emergency.
- (f) Determine if external support is required to augment the PCAPP ERO during a PCAPP CAI.
- (g) Request external resources from PCD if PCAPP resources are insufficient to respond effectively.
- (h) Establish the chemical agent hazard area.
- (i) Develop a plan to control chemical agent contamination.
- (j) Ensure emergency response operations are executed to the maximum extent possible within chemical surety guidelines established in AR 50-6.

## ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

(k) Maintain continuous communication with the PCD OC and IRF Commander.

**(9) Facility/Area Managers and Shift Team Leaders:** Facility/Area Managers and Shift Team Leaders will also assist the PCAPP EC during CAIs by executing protective action directives. Facility/Area Managers and Shift Team Leaders will ensure facility/areas are swept, the directed protective action is executed, and personnel accountability is determined and reported to the CON.

**(10) PCAPP Area Supervisor:** The PCAPP Area Supervisor will become the Scene Commander in the case of an emergency event. Once the PCAPP EC activates emergency responders, the Scene Commander reports directly to the scene but outside and upwind of the hazard zone perimeter, takes control of the activities of first responders, and coordinates the actions of all response teams at the event location. During PCAPP CAIs, the Scene Commander will:

- (a) Control and direct all PCAPP emergency response teams.
- (b) Integrate PCD and PCAPP emergency response teams in PCAPP emergency response operations as required.
- (c) Establish and secure a restricted hazard area around the CAI site with a radius of 50 meters if there is no explosive potential.
- (d) Establish staging area(s) near to but outside and upwind of the hazard area.
- (e) Focus immediate emergency response effort on saving lives and containing the chemical agent hazard.
- (f) Determine the character, exact source, and amount of chemical agent released at the CAI site and report said information to the PCAPP EC.
- (g) Ensure the contaminated area is surveyed, marked, and controlled.
- (h) Ensure the hazard area is evacuated and establish evacuation perimeter control.
- (i) Brief emergency response team leaders on response objectives and tasks.
- (j) Ensure emergency response teams respond with the proper level of personnel protective equipment (PPE).
- (k) Establish chemical personnel decontamination station (PDS) location in conjunction with the PCAPP HAZMAT Team Leader.
- (l) Make requests for additional emergency response teams to the PCAPP EC as required.

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- (m) Ensure chemical agent is recovered and accounted for.
- (n) Ensure the CAI site is decontaminated.
- (o) Preserve the CAI site to the maximum extent possible for accident investigation efforts.

**(11) PCAPP Control Room Operators (CRO):** During emergency operations, the PCAPP CRS directs operations in the Control Room. Control Room Operators (CRO) will support the EC and CRS as they carry out their responsibilities. During CAIs, the CRS or CROs will:

- (a) Notify PCAPP personnel and the PCD OC.
- (b) Monitor and control plant processes, systems, and equipment.
- (c) Ensure communications are established and maintained with operators, maintenance personnel, OSC, PCAPP Incident Management Team (IMT) (if activated), and the PCD OC.
- (d) Request PCD OC use of WebPuff hazard analyses of the appropriate Emergency Response Planning Scenarios (ERPS) to determine initial chemical hazard area.
- (e) Coordinate ongoing plant operational and maintenance actions that impact emergency response operations with the Shift Superintendent or as Acting On-Scene Commander.

**(12) Emergency Response Teams:** PCAPP emergency responders are comprised of Bechtel Pueblo Team (BPT) with the training and expertise to quickly respond to the scene of an event, assess the situation, and promptly mitigate the emergency conditions. The emergency response special teams that would provide response support during a CAI are the Hazmat Team, Decon Team, Rescue Team, and Paramedics Team.

**(13) PCAPP Incident Management Team (PIMT):** The PCAPP Incident Management Team (PIMT) is a group of PCAPP-based personnel (appointed by the BPT Project Manager) who work together to provide additional support to the IRF Commander, EC, and ERO, when needed. Upon a request being received from the EC the PIMT Chair (or designee) will immediately notify the PIMT, which will convene at the Personnel Support Building (PSB), Copper Mountain conference room, provided it is available for occupancy; otherwise, the PIMT will assemble in an available conference room or classroom.

The PIMT consists, as a minimum, of the following persons:

- |                                 |        |
|---------------------------------|--------|
| • Project Manager               | Chair  |
| • Community Outreach Member     | Member |
| • Procurement Manager           | Member |
| • PCAPP FO Gov't Representative | Member |

## ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

The PIMT is responsible for providing support to the ERO during an emergency event involving PCAPP. During an event, the PIMT takes direction from the PIMT chairperson and integrates its activities with the activities of the PCAPP EC and the PCD OC. The PIMT, by using available management personnel to accomplish emergency response support activities, is ultimately responsible for:

- Directing the BPT as needed to support the EC
- Establishing and maintaining communications with corporate management
- Providing senior level interface with the ACWA and the PCD.

**(14) Public Affairs (PA):** Public Affairs will be managed and controlled by the IRF Commander during a CAI. Public Affairs will be coordinated, focused, “single-voice” effort using the collective public affairs and information resources available from PCD and PCAPP.

**4. SERVICE SUPPORT.** In the event of a CAI at PCAPP, the following will apply:

**a.** Prior to conducting routine operations, PCD OC Hazard Analysts will evaluate ERPS applicable to the specific demilitarization operation. Prior to each munition campaign, the PCD OC will update the hazard analysis program with the munitions type/configuration, agent type (HD/HT), and other source data for the associated ERPS. The ERPS-predicted hazards, affected by current meteorological conditions will be monitored continuously in the PCD OC. The PCD OC will use these ERPS and associated hazard predictions as they use maximum credible events (MCEs) for storage operations. This provides an effective tool for the PCD OC to develop responsive protective action recommendations (PARs) to local Emergency Medical Agencies (EMAs) within the ten-minute standard.

**(1)** At PCD, CAIs can occur during the storage, transportation, or demilitarization of chemical munitions. In each case, the PCD OC must be notified of the emergency within 5 (five) minutes. The PCD OC will then make notifications, determine and disseminate protective action decisions (PADs), and activate CAIRA resources.

**(2)** If the IRF Commander determines that PCAPP augmentation support is required for CAIs, PCD emergency response and support teams will activate and respond in accordance with established support agreements.

**(3)** For CAIs occurring at the PCAPP, the PCAPP CON will report CAI information to the PCD OC within 5 (five) minutes using the direct PCAPP CON-PCD OC Hot-Line Phone or report all available information at the time of the initial notification with the expectation that updates will be provided as appropriate. The CON also notifies the Shift Manager who becomes the PCAPP EC, and implements the applicable contingency procedures. Radios using the appropriate radio talk groups will be the backup mode to communicate this information. The following information will be provided by the CON:

- (a)** CAI location

## ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

- (b) Source of agent release
- (c) Number of personnel injured and/or contaminated
- (d) If fire is involved
- (e) Chemical agent (HD or HT) involved
- (f) Type of munitions involved
- (g) Number of explosions, if any, and number of munitions involved, if known
- (h) Emergency response actions taken (masked, warned personnel, evacuated area, etc.)
- (i) Name of the PCAPP CON Operator calling

(4) The CON then determines and communicates the initial appropriate protective actions to on-site personnel. The CON also serves as the PCAPP incident command post and, therefore, notifies and activates emergency response teams when directed by the PCAPP EC. When discovering or recognizing that a CAI exists, the observer or first responder will immediately call the CON and provide the following information or report all available information at the time of the initial notification with the expectation that updates will be provided as appropriate:

- (a) CAI exact location
- (b) Source of chemical agent release
- (c) Number of personnel injured and/or contaminated
- (d) If fire is involved
- (e) Chemical agent (HD or HT) involved
- (f) Type of munitions involved
- (g) Number of explosions, if any, and number of munitions involved, if known
- (h) Emergency response actions taken (masked, warned personnel, evacuated area, etc.)
- (i) Caller name, location, and phone number

(5) During munition transport to PCAPP, when the Modified Ammunition Van (MAV) is within the PCD Chemical Limited Area, emergency response actions will remain with PCD, Chemical Operations personnel, and will be executed as outlined in this CAIRA Plan. The OC

will request assistance of the PCAPP CON if the PCAPP HAZMAT Team is required to provide assistance. PCAPP emergency response teams will render assistance as required.

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(6) During munition transport to PCAPP, when the MAV is within the PCAPP Chemical Limited Area, PCAPP emergency response teams will assume responsibility for initial emergency response. The PCAPP CON will notify the PCD OC if additional assistance is required. PCD emergency response personnel will provide assistance as required.

(7) Upon notification of a suspected chemical release to atmosphere, PCD OC personnel will calculate the time for a potential plume to reach the involved PCAPP perimeter monitoring station(s). The Depot Area Air Monitoring System (DAAMS) tube from PCAPP perimeter monitoring station(s) will be collected as soon as the tail of the suspected plume passes the PCAPP perimeter monitoring station. The PCD Commander or designated representative will be notified of the DAAMS tube analysis results.

(8) In the event of chemical agent accident or incident, PCAPP site liaison/support personnel will report to their CAIRA duty stations in the PCD OC. Personnel who report to the PCD OC in a liaison/support capacity are a PCAPP-FO (government) representative and the BPT Emergency Preparedness Manager or designee. Additional PCAPP site project and plant management personnel may, report to the PCD OC, as required.

(9) Protective actions such as sheltering or evacuation will be made in accordance with PCAPP and PCD procedures.

(10) The assessment process continues until the CAI is mitigated, the chemical agent hazard is contained or eliminated, and the CAI site is restored to a technically acceptable condition through an effective recovery process.

(a) During or after a CAI, the installation commander is ultimately responsible for all restoration operations within their purview. Although day-to-day oversight and actual execution of this program may be delegated to others, the Commander remains the final authority for all decisions and actions. Because of safety, environmental, logistical, and security concerns, planning and managing recovery operations require a total PCD and PCAPP staff effort. During CAIRA events, numerous governmental agencies may be involved in recovery operations, especially if it involves remedial operations outside PCD boundaries.

(b) Many of the same resources used during a CAIRA response are used during recovery operations. Emergency response teams may be used to assist in recovery operations such as clean up, decontamination, or other remedial operations. Many times during recovery operations, it may be necessary to reenter hazardous or contaminated areas. Reentry operations must be planned and executed carefully following proper safety and protection requirements.

(c) Recovery operations are more deliberate and are generally not as urgent as response operations. There is time to plan and coordinate recovery tasks prior to implementation. The goal is to return the CAI site to a technically achievable and acceptable condition, based on compliance with regulatory and Installation requirements so that normal PCAPP operations can resume.

## ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

(d) Before normal PCAPP operations may be resumed, the PCAPP-FO Site Project Manager and BPT Project Manager must satisfy RCRA hazardous waste requirements and verify the emergency response capability has recovered and are prepared to support future operations. Once these requirements are met, the BPT Plant Manager must ensure all LCOs are met so that plant operations can resume. LCOs delineate the number of trained and certified emergency response team personnel that must be available on shift to conduct emergency response operations.

(e) The Installation Commander may authorize reentry to areas affected by the emergency event if an immediate threat to life and health no longer exists. Reentry operations generally occur during early stages of recovery operations. Reentry operations may be required to complete recovery tasks to restore PCAPP facilities to their pre-emergency state. Reentry may be authorized into the CAI site to investigate the accident/incident and determine cause, to perform cleanup or other restoration actions, to return evacuated personnel to work areas, and to support resumption of plant operations.

**5. COMMAND AND SIGNAL.**

**a. Command.** PCD Emergency Response is under the direction of the Plans, Operations and Training Division (POTD); PCAPP ERO operational control rests with the BPT plant manager.

**b. Signal.** Same as base plan.

## APPENDIX I TO ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

**APPENDIX I (PCAPP-EDS RESPONSE) to ANNEX V (PCAPP CAIRA RESPONSE)  
PCD CAIRA PLAN****1. SITUATION**

a. Two Explosive Destruction System (EDS) units will be located at the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) EDS site and will be used to treat or destroy:

- (1) Over packed munitions;
- (2) Miscellaneous items (ignition cartridges, propellant) containing mustard agent (distilled sulfur mustard [HD]/mustard-T mixture [HT]); and
- (3) Reject chemical agent munitions or contaminated bursters generated from PCAPP operations.

b. The EDS units will be deployed to support the goals of:

- (1) Completing the destruction of the PCD inventory of chemical agent munitions and other items in compliance with the Chemical Weapons Convention (CWC) and Public Law;
- (2) Maintaining continuity of U.S. chemical destruction operations; and
- (3) Conducting treatment/destruction activities in a safe, environmentally acceptable and cost-effective manner.

**2. PURPOSE.** Establish guidelines and responsibilities for a Chemical Accident or Incident (CAI) occurring at the EDS site. This Annex applies to all government, contractor and visitor personnel supporting the PCAPP- EDS site.

a. There may be other hazards associated with CAIs, including fire, explosions and structural hazards in or about the incident location. A chemical release or exposure incident should be considered an indicator of a potential multi-hazard event until proven otherwise and the following actions taken:

- (1) Ensure health and safety of personnel within and near the PCAPP- EDS site and protect the environment.
- (2) Provide for comprehensive investigation, evaluation, and reporting of all accidents or incidents involving chemical agents.
- (3) Minimize damage to facilities and equipment.
- (4) Implement responsive and effective procedures to eliminate the source of the event.
- (5) Prevent loss, theft, or seizure of chemical agents or munitions.

**3. EXECUTION.**

a. PCAPP-EDS site personnel will notify the PCD OC regarding any non-surety emergency, chemical event or unusual occurrence that has potential to impact other PCD directorates or the off-post community. For hazardous waste material spills or releases, the OC notifies the Crisis Management Team to report to the OC. See Annex A for the CAIRA Response Organization.

## APPENDIX I TO ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

b. Protective actions such as sheltering or evacuation will be made in accordance with PCD procedures.

c. Spills or Releases within PCAPP-EDS Engineering Controls.

(1) Incidental releases or spills occurring within engineering controls, will be managed by EDS site personnel using the EDS Resource Conservation and Recovery Act (RCRA) Contingency Plan (Section G). An incidental release is a release of hazardous waste/materials or waste constituents, including chemical agent, where the substance can be absorbed, neutralized, contained, or otherwise controlled by personnel in the immediate release area using emergency equipment on-hand. The PCD Operations Center will be notified of any spill or release.

(2) The PCAPP EDS RCMD Site Manager will be responsible for ensuring the appropriate response procedures are followed.

(3) The EDS Command Post will be notified if any emergency or spill release that threatens public health or environment occurs.

b. Spills or Releases Outside EDS Engineering Controls

(1) Should an incident involving chemical agent occur outside engineering controls, the PCD Operations Center will be notified of any spill or release. The PCD Operations Center upon notification will implement the PCD CAIRA Plan. The PCD CAIRA Plan provides procedures for evacuation, containment, decontamination, cleanup, recovery, and remedial operations relating to a chemical agent release.

(2) For spills or releases of non-chemical agent hazardous wastes or materials outside engineering controls, the PCD ISCP will be implemented. The ISCP identifies resources, equipment, personnel, and procedures to be used to prevent oil or non-agent-related hazardous material/waste spills from reaching surface and subsurface water.

(3) During munition transport to PCAPP-EDS, emergency response actions will remain with PCD and will be executed as outlined in this CAIRA Plan.

(4) If decontamination of terrain is required, decontamination measures will follow procedures specified in the current PCD ISCP.

(5) If the spill or release is a reportable spill or a release above the reportable quantity, notification will be made to the PCD OC. The On-Scene Coordinator (OSC) will evaluate the release and make additional notifications in accordance with the PCD ISCP, as required.

c. Evacuation routes from the PCAPP-EDS site will be posted onsite. If a wider area needs to be evacuated or the installation needs to be evacuated, procedures for evacuation (Annex F, PCD Installation Emergency Management Plan) will be implemented, and the installation will coordinate with local officials, as required.

d. Before normal PCAPP-EDS operations may be resumed, the PCAPP EDS RCMD Site Manager must satisfy RCRA hazardous waste requirements and verify the emergency response capability has recovered and are prepared to support future operations. Once these requirements are met, the PCAPP-EDS Project General Manager must ensure all Limiting Conditions of Operation (LCO) are met so that operations can resume. LCO delineate the number of trained and certified emergency response team personnel that must be available on shift to conduct emergency response operations.

## APPENDIX I TO ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

4. **SERVICE SUPPORT.** See Base Plan.

5. **COMMAND AND SIGNAL**

a. Command

(1) For all chemical accidents or incidents, the PCD Commander is the Incident Response Force (IRF) Commander and the On-Scene Coordinator (OSC) who provides overall command and control of the CAIRA emergency IAW guidelines set forth in AR 50-6. The Installation Commander may authorize reentry to areas affected by the emergency event if an immediate threat to life and health no longer exists.

(2) The PCD Fire Chief is normally designated as the On Scene Incident Commander (OSIC) with authority to commit resources needed to manage emergency situations and coordinating all operations at the accident site. The Fire and Emergency Services Department serves as the emergency response team for all incidents involving industrial and/or chemical facilities.

b. Signal

PCD OC and the PCAPP and EDS control rooms will share information via hotline regarding non-surety emergencies, chemical events and unusual occurrences.

(1) PCAPP-EDS Site Communications

(a) Internal communications of personnel between various trailers will consist of throat microphones, hand-held radios, headsets, and cell phones. Throat microphones and headset equipment will also be made available when personnel are required to use self-contained breathing apparatus (SCBA) equipment or supplied air, and the "two-man rule" will be invoked during operations involving surety material.

(b) Non-routine operating conditions, including detection of the release of chemical agent above the established alarm level will be conveyed to site personnel using this internal communication system.

(c) Hotline communications will be established between the PCAPP-EDS control room and the PCD OC. Land lines and/or cell phones will be the primary external communication equipment used to summon emergency assistance from PCD security, police, and fire department and emergency response teams. Hand-held radios and cell phones may also be used to summon external assistance in an emergency.

(2) Notification. Additionally, when a chemical agent, hazardous waste/hazardous material accident/incident emergency occurs at the PCAPP-EDS site, these procedures will be followed:

(a) The discoverer of the incident will immediately notify the PCAPP EDS RCMD Site Manager or designee of the incident by vocal command (for example, person to person, telephone, or radio).

(b) PCAPP EDS RCMD Site Manager or designee will visually assess the incident and notify and provide input to the PCD OC.

APPENDIX I TO ANNEX V (PCAPP CAIRA RESPONSE) PCD CAIRA Plan

(c) PCAPP-EDS site personnel and visitors will be notified of an emergency by an audible alarm and/or vocal command. Individuals visiting the PCAPP-EDS site will be escorted by personnel who are familiar with site-specific emergency notification procedures.

(d) Upon notification of an emergency, all PCAPP-EDS processing and support operations will continue until items being processed have been safely secured. Once the items are secured, PCAPP-EDS processing operations will cease.

(e) The OSC and PCAPP EDS RCMD Site Manager will evaluate the incident. The OSC will determine if local authorities should be contacted to request assistance or evacuate the local area. This procedure is in accordance with the PCD CAIRA Plan or ISCP. The OSC will also notify all appropriate local and state agencies as necessary, based on the extent of the incident. The PCD ISCP describes the process PCD employs for emergency situations and notifying appropriate state or local agencies with designated response roles.