

CONTINGENCY PLAN

ATTACHMENT 4

Pueblo Chemical Depot

Pueblo, Colorado

CONTINGENCY PLAN

[6 CCR 1007-3 § 100.41(a)(7) and § 264.50 through 264.56]

4-1 INTRODUCTION

This Contingency Plan describes the response actions to be taken to minimize hazards to human health and the environment from fires, explosions, and any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, surface or ground water at the Pueblo Chemical Depot (PCD) as required by the Colorado Hazardous Waste Regulations, 6 Colorado Code of Regulations (CCR) 1007-3 § 100.41(a)(7) and § 264 Subpart D. The provisions described in this Plan are carried out immediately by PCD site personnel and/or Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) Explosive Destruction System (EDS) personnel whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

Upon effective containment of any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents, the Permittee must obtain an Emergency Permit from the Colorado Department of Public Health and Environment (CDPHE) before proceeding with any cleanup or other recovery operations. As stated in 6 CCR 1007-3 § 100.10(a)(8), "...After the immediate response activities are completed, any treatment, storage, or disposal of discharged material or discharge residue or debris that is undertaken must be covered by a RCRA permit, an emergency RCRA permit or interim status." Further, § 264.1(g)(8)(iii) states "Any person who...continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this part."

The specific actions taken by PCD and/or PCAPP EDS personnel in the event of a routine leak from munitions, Department of Transportation (DOT) containers, or other agent contaminated hazardous wastes stored in the Resource Conservation and Recovery Act (RCRA)-permitted hazardous waste management units (G203, G1009, G1107, G1109, G1110, and H1102) are described in **Attachment 2** of this Permit. The specific actions taken by PCAPP EDS personnel in the event of a routine leak or spill from munitions, DOT containers or other agent contaminated hazardous wastes managed in the EDS Units and their associated Environmental Enclosures, H1103, or the roll-off storage pad adjacent to H1103 are described in Appendix 4-1 of this Plan. 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 Recovered Chemical Materiel Directorate (RCMD) Site Manager or Edgewood Chemical Biological Center (ECBC) Site Safety and Health Officer (SSHO) will be responsible for ensuring the appropriate response procedures are followed. A copy of this Contingency Plan and all revisions will be maintained at the PCAPP EDS Command Post.

Should an incident involving chemical agent or other hazardous waste constituents occur inside the EDS Units or their associated Environmental Enclosures, or occur outside of the EDS or Environmental Enclosure engineering controls, the PCD Operations Center (OC) will be immediately notified of the incident, and this Contingency Plan will be implemented. PCD and/or PCAPP EDS responses are dependent upon evaluation of specific circumstances and the unique events for each situation.

PCD utilizes the Installation Spill Contingency Plan (ISCP) and the Chemical Accident/Incident Response and Assistance (CAIRA) Plan under this Contingency Plan to control the release of hazardous waste or hazardous constituents at the facility. The ISCP is attached as **Appendix 4-3** to this Contingency Plan and details the actions that take place if a nonagent-related spill or release occurs. The CAIRA Plan, **Appendix 4-4**, discusses what actions take place if an agent-related spill or release occurs.

The ISCP identifies resources, equipment, personnel, and procedures to be used to prevent oil or nonagent-related hazardous material/waste 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 nonagent-related hazardous material/waste to air, soil, or surface water, and is carried out whenever any of these incidents occur. The ISCP provides the following:

- Identification of the On-Scene Coordinator (OSC), On-Scene Incident Commander (OSIC), the Installation Response Force (IRF), and their responsibilities for implementing the plan
- A discussion of the roles of various other PCD personnel such as the Chief of Environmental Management

- A discussion of the implementation of the ISCP, including actions to be taken during an oil or nonagent-related hazardous material/waste spill.

This Contingency Plan will be reviewed and amended in the event of any of the following:

- The RCRA Permit is revised.
- A response action fails in a test or actual emergency.
- Changes occur in the design, construction, operation, maintenance, or other areas of PCD site operation in a way that increases the potential for fires, explosions, or releases of hazardous waste/materials or hazardous constituents, or changes the response necessary in an emergency.
- The list of emergency equipment for PCD, including the PCAPP EDS site changes.

A copy of this Contingency Plan is maintained at the facility.

All site workers will be trained on emergency procedures, including communications and alarm systems, notifications, evacuation, and reporting. Selected site personnel will have training and certification in first aid and cardiopulmonary resuscitation (CPR) and use of an automated external defibrillator (AED). A first aid kit and AED will be on the PCAPP EDS site during all operations.

4-2 GENERAL INFORMATION [6 CCR 1007-3 § 264.52]

PCD is located in southeastern Colorado, east of the city of Pueblo in Pueblo County. PCD is located on 23,000 acres and has been in operation since the early 1940s. Activities at PCD have included storage and shipment of general supplies; storage of conventional and chemical munitions; reconditioning of vehicles; renovation and demilitarization of ammunition; fifth echelon maintenance; storage, supply, and maintenance of fixed and floating engineer bridges; repair, maintenance, and manufacturing of guided missiles; repository for historical properties; and metal processing. In 1988, the Defense Secretary's Report on Base Realignment and Closure (BRAC) recommended the realignment of PCD. Since this action, the number of activities conducted at PCD has been significantly reduced.

Nine permitted hazardous waste storage units and 2 hazardous waste treatment units are located at PCD: G203, G1009, G1107, G1109, G1110, H1102, H1103, a Roll-off Container Storage Area adjacent to H1103, Building 540 and 2 EDS Units in Environmental Enclosures. G203, G1009, G1107, and G1109 are existing concrete munitions storage igloos comprising four walls, floor, and ceiling that are used to store leaking chemical-filled munitions in overpacks pending treatment at a permitted treatment, storage, and disposal facility. G1110 is also an existing concrete munition storage igloo and is used to store material such as personal protective equipment (PPE) or dunnage contaminated from handling leaking munitions, along with leaking chemical-filled munitions in overpacks pending treatment at a permitted treatment, storage, and disposal facility. Container Storage Units (CSUs) H1102, H1103, and a Roll-off Container Storage Area adjacent to H1103 will be located at the PCAPP EDS site. CSUs H1102 and H1103 are existing earth-covered concrete storage igloos comprising four walls (one with a door), floor, and ceiling. CSU H1102 stores agent wastes prior to treatment in the EDS units and CSU H1103 will be used to store wastes that have been treated in the EDS units prior to offsite shipment to permitted treatment, storage, and disposal facilities. The EDS units treat/destroy overpacked munitions, DOT cylinders, and other miscellaneous items (ignition cartridges, propellant) currently stored at PCD that contain mustard agents (distilled sulfur mustard [HD]/mustard-T mixture [HT]).

Attachment 1 of this Permit provides site and facility maps and a description of all the permitted units at PCD. Hazardous waste activities performed at PCD, including the EDS units, are described in Process Information, **Attachments 7** and **8** of this Permit.

4-3 EMERGENCY COORDINATORS [6 CCR 1007-3 § 264.52(d) and 264.55]

This section describes the emergency response organization and designated personnel at PCD, including the PCAPP EDS units. Directorates provide personnel, equipment, and expertise for proper response to spills of oil or nonagent-related hazardous material/waste.

For any chemical agent or hazardous waste/hazardous material spill or release at PCD, including spills or releases associated with EDS operations, the PCD OC is notified. For any chemical agent or hazardous waste/hazardous material spill or release at the PCAPP EDS site occurring within engineering controls, the RCMD Site Manager or designee will act as the emergency coordinator and will be called. EDS site personnel will manage the incident. Spills or releases outside engineering controls or beyond the management capability of PCAPP EDS site personnel will be managed by PCD personnel under this Contingency Plan.

A list of the RCMD Site Managers or designees that will act as the emergency coordinator during an emergency at the EDS site is attached as **Table 4-1**¹ to this Contingency Plan. Home phone numbers and addresses for PCD or PCAPP EDS site emergency coordinators will be maintained onsite and available for review by Division inspectors upon request. If a home phone number or address for an emergency coordinator or alternate changes, PCD must still notify the Division that the information has changed and is available for review onsite in a Class I permit modification submitted in accordance with 6 CCR 1007-3 Section 100.63.

The RCMD Site Manager or designee as emergency coordinator is thoroughly familiar with all aspects of the Contingency Plan, all operations at the EDS site, the location and characteristics of the waste handled, the location of all records pertaining to the EDS site and the EDS site layout. The RCMD Site Manager or designee as emergency coordinator coordinates all emergency response measures and has the authority to commit resources needed to manage emergency situations and cleanup spills or other releases at the EDS site.

For chemical agent releases, the OC notifies depot personnel to report to their CAIRA duty stations. For hazardous waste material spills or releases, the OC notifies the Crisis Management Team to report to the OC. The Depot Commander is the OSC and the primary emergency coordinator at PCD. In the event the commander cannot reach the facility within 30 minutes, other qualified personnel at PCD may act as the OSC/emergency coordinator until relieved. A list of the PCD personnel including the commander whom may act as the emergency coordinator during an emergency is in **Table 4-1** to this Contingency Plan. Home phone numbers and addresses for PCD emergency coordinators will be maintained onsite and available for review by Division inspectors upon request. If a home phone number or address for an emergency coordinator or alternate changes, PCD must still notify the Division that the information has changed and is available for review onsite in a Class I permit modification submitted in accordance with 6 CCR 1007-3 Section 100.63. The OSC is thoroughly familiar with all aspects of the Contingency Plan, all operations at the facility, the location and characteristics of the waste handled, the location of all records within the facility, and the facility layout. The OSC coordinates all emergency response measures and has the authority to commit resources needed to manage emergency situations and cleanup spills or other releases. **Table 4-1** lists names and phone numbers of Emergency Coordinators. Army Regulation

¹ All tables are located at the end of this attachment.

(AR) 525-27 outlines the qualifications for all personnel holding emergency management positions on an Army installation.

A detailed description of the PCD emergency response organization and designated personnel for a spill or release of agent-related hazardous waste is provided in the PCD CAIRA Plan.

If a release to surface waters occurs, the U.S. Environmental Protection Agency (USEPA) will provide an OSC responsible for the emergency response operation. The USEPA OSC must be notified immediately if it is determined that there is a release to surface waters.

4-4 IMPLEMENTATION [6 CCR 1007-3 § 264.52(a) and 264.56(d)]

The provisions of this section are carried out immediately by PCD site personnel and/or PCAPP EDS site personnel whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

The PCD CAIRA Plan and/or PCD ISCP are implemented when a fire, explosion, or release of chemical agent or hazardous waste/hazardous material occurs. Incidental releases that are contained within engineering controls are managed as a part of routine operations. Control procedures for responding to spills and releases at PCD are described in Section 4.4.4 of the Plan. Control procedures for responding to incidental spills and releases at the EDS site that occur within engineering controls are described in **Appendix 4-1** to this Plan.

4-4a Response

At all times, there must be at least one employee at the installation that can act as the OSIC. The OSIC is responsible for coordinating all nonagent-related emergency response measures. The OSIC must be thoroughly familiar with all aspects of the Contingency Plan, which includes the ISCP, as well as all operations and activities at the installation, the location and characteristics of wastes handled, the location of pertinent records at the installation, and the installation layout. Only the OSIC or his designated representative has the authority to commit the resources needed to carry out the ISCP.

4-4b Initial Report

Anyone may report a spill or release. All personnel or employees of PCD are required by AR 200-1 to immediately report any observed oil, hazardous material/waste, or pesticide spill. Spill or release events are to be reported to the OC and the Fire and Emergency Services Department using the emergency contact number 4911. The emergency contact number notifies both the OC and the Fire and Emergency Services Department simultaneously. The discoverer will not endanger their personal safety to control the spill or release.

Personnel from both the OC and the Fire and Emergency Services Department are supplied with worksheets to record the initial reports of an oil or hazardous material/waste spill or release. The completed original is then turned over to the OSC for the record.

4-4c Immediate Action

After the discovery of a non agent-related spill or release, the OC is notified immediately. Refer to **Table 4-1** for the OC phone number. The OSIC is responsible for implementing the ISCP. In the absence of the appointed OSIC, the Chief or the On-Duty Chief of the Fire and Emergency Services Department serves as the OSIC.

The OSIC has the responsibility to:

- Activate internal facility alarms or communication to notify all facility personnel in affected or impacted area.
- Deploy the first-phase IRF.
- Determine the magnitude of the spill and provide status of situation to the OC.
- Seek immediate medical attention for those individuals involved in the spill.

- Provide sufficient information so that the Crisis Management Team can make necessary notifications to the Directorate of Emergency Services, the Directorate of Public Works, Directorate of Base Operations, the Pest Management Officer, the Safety Office, the Public Affairs Office, the U.S. Army Chemical Materials Activity (CMA) Environmental Office and CMA Legal Counsel office.
- Arrange for contracts with offsite disposal facilities and cleanup contractors.
- Determine the quantity of material released and determine whether a reportable quantity of oil (25 gallons or more) or hazardous material/waste (refer to Appendix B of the ISCP, attached to this Plan as **Appendix 4-2**) was released to the environment.
- Provide sufficient information so that notifications can be made to CDPHE and the USEPA.
- Provide sufficient information so that the Crisis Management Team can complete and submit the Pollution Incident Report and the appropriate follow-up report within 15 calendar days to CDPHE and USEPA if a reportable quantity is equaled or exceeded or a release to surface water has occurred.

When a pesticide spill occurs, the following actions are taken, in addition to those listed previously:

- Identify the pesticide, herbicide, or rodenticide container to identify the poison category in order to determine personnel exposure and emergency response.
- Refer to the Safety Data Sheet (SDS) for that substance to determine the appropriate hazard and spill response information (the OSIC and Fire and Emergency Services Department have a copy of the SDS for any pesticide being used at PCD).
- Notify the PCD Occupational Health Clinic and provide the pesticide name and poison category.
- Contact the Pest Management Officer to provide expertise to aid in the response.

- Remove contaminated clothing and decontaminate affected areas using methods identified on the SDS for that hazardous material/waste.

4-4d Actions to Be Taken During a Release at RCRA-Permitted Hazardous Waste Management Units G203, G1009, G1107, G1109, G1110, or H1102

Response action to all accidents/incidents involving chemical munitions is carried out as identified in the CAIRA Plan. The RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109, and G1110 are located within Munitions Storage Area A. Igloo H1102 is located south of Munitions Storage Area A. Situations involving the release or spill of chemical agent are handled under the CAIRA Plan. The PCD Installation Commander is the Federal On-Scene Coordinator in the event of a chemical agent-related accident/incident.

4-4e Actions to Be Taken During a Release at RCRA-Permitted Hazardous Waste Management Units H1103, the Roll-Off Container Storage Area Adjacent to H1103, the EDS Units and Environmental Enclosures

Response action to accidents/incidents involving chemical munitions or other agent wastes inside the EDS, the Environmental Enclosures, H1103 or the H1103 Roll-off Container Storage Area engineering controls will be carried out in accordance with **Appendix 4-1** of this Plan. Response action to accidents/incidents involving the release of chemical agent or other hazardous waste constituents to the environment will be carried out in accordance with the PCD CAIRA Plan or the PCD ISCP as applicable and described in this Contingency Plan.

4-5 EMERGENCY ACTIONS [6 CCR 1007-3 § 264.56]

The emergency procedures presented in the following paragraphs are followed by PCD site personnel. Once notification of an emergency is made which implements the PCD CAIRA Plan and/or the PCD ISCP (as applicable) and all facility personnel have been notified accordingly, procedures presented in those plans are followed in accordance with this Contingency Plan. The following paragraphs describe PCD's procedures during an emergency.

Whenever there is an imminent or actual emergency situation involving hazardous material/waste at PCD, the OC, the OSC, and the Crisis Management Team take the following actions as soon as possible:

- Implement the ISCP. If the emergency is a possible chemical accident/incident, implement the CAIRA Plan.

Notify appropriate state or local agencies with designated response roles if their help is needed. The PCD ISCP describes the process PCD employs for emergency situations and notifying appropriate state or local agencies with designated response roles.

Identify the character, exact source, amount, and extent of any released materials whenever there is a release, fire, or explosion. Identification may be accomplished by observation or review of facility records or manifests and, if necessary, by chemical analysis. PCD personnel, including chemical crewmembers, toxic material handlers, and security personnel, identify visual indicators of an event, and such indicators immediately indicate presence of liquid agent or an explosion or fire. The PCD personnel identifying an event verbally notify the OC. If data reflect a possible Chemical Accident/Incident, the CAIRA operation is initiated immediately.”

- Assess possible hazards to human health or the environment that may result from the release, fire, or explosion in coordination with appropriate state, federal, and local authorities. This assessment must consider the maximum potential quantity of hazardous waste or hazardous constituents involved, and 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). WebPuff™ air modeling as described below is used to predict concentrations of agent at potentially impacted locations. Real-Time Analytical Platforms (RTAPs) are used to detect agent for a single source at that point and time. Airborne exposure limit (AEL) concentrations are evaluated to address risks to the PCD work force and responders. PCD uses both acute exposure guideline levels (AEGs) and AEL concentrations to assess hazard areas for both on-post and off-post communities. AEGs are used to evaluate hazard areas for off-post communities and AEL concentrations are used to direct on-post emergency

response actions. Standards for AEL concentrations are short-term exposure limits (STELs). PCD personnel don masks when levels reach one-quarter STEL.

Identify locations for monitoring using the WebPuff hazard modeling program. This information is used to coordinate with the operation sections chief who assists with determinations of low-level monitoring. The OC, as part of daily operations described in the PCD CAIRA Plan, reviews all pertinent data on a daily basis, including information to predict areas of agent migration, using WebPuff. On operating days, PCD runs a maximum credible event model, which is the most probable accident based on the type of operations occurring on a particular day as well as the agent and munitions involved. WebPuff models a chemical release using the latest Geographic Information System (GIS) technology, assesses its risk to PCD's surrounding communities, and delivers protective action recommendations to PCD Emergency Operations Center (EOC) within 5 to 10 minutes. With WebPuff, PCD EOC hazard analysts assess the potential off-post effects of a chemical incident at PCD. The information is then communicated by telephone to the neighboring county emergency management agencies (Pueblo County Government, Pueblo City Government, Boone City Government, and Health and Medical officials as outlined in the PCD CAIRA Plan, PCD Chemical Accident/Incident Recovery Plan, Annex E, attached to this Contingency Plan as **Appendix 4-4**). The county receives plume projections of the chemical release and a community-specific emergency protective action recommendation. The PCD Commander and county emergency management officials evaluate the WebPuff analysis and recommendations and then make protective action decisions for their communities. Using real-time weather information, technical information about the agent being modeled and local terrain data, the system predicts the projected path of the chemical plume. WebPuff uses open source GIS technology to provide images of the projected plume and its relationship to the local terrain. The WebPuff system provides access to the D2-puff atmospheric dispersion model through a browser (web) based interface. Plume model data and protective action recommendations are transmitted via an encrypted connection over dedicated communications circuits (Chemical Stockpile Preparedness Program Wide Area Network – CSEPP WAN). It also implements Open GIS Consortium, Inc., Web Features Service, and Web Map Service implementation specifications that allow not only static display of population, critical infrastructure, and special facilities, but also dynamic chemical plume mapping, projection, and the ability to develop high-resolution aerial

imagery. WebPuff relies on 15-minute weather feeds from weather towers. Once an incident is identified, the WebPuff system will continue to model the hazard area or plume based on continuing weather conditions.

If the OSC determines that the facility has had a release, fire, or explosion that could threaten human health or the environment outside the facility according to the criteria below, the OSC must report those findings as follows:

- The Depot OC immediately notifies the Pueblo County EOC if the initial assessment indicates that evacuation of local areas may be advisable. The OSIC, in conjunction with the OC, determines the downwind hazard analysis and help Pueblo County Emergency Managers decide whether local areas should be evacuated. Based on the WebPuff modeling, if any AEGL-1 is achieved for agent, a community emergency level is reached; if any AEGL-2 is established, a recommendation to evacuate or shelter-in-place is appropriate. AEGL values for mustard agent are contained in **Appendix 4-5** to this Contingency Plan.
- On-post response recommendations are made to the PCD Commander, and the off-post recommendations are made to the Pueblo County Emergency Managers.
- The primary means of identification is the telephone Hotline to the Pueblo County Emergency Dispatch, which is a direct, immediate line to Pueblo County.
- The Environmental Representative in the OC notifies the National Response Center (NRC) either on-line or at (800) 424-8802, or at the current published toll free number. 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, if known

- The extent of injuries, if any
 - The possible hazards to human health or the environment outside the facility
 - An estimated quantity and disposition of recovered material that resulted from the accident/incident.
- Based on hazard indicators developed by WebPuff, monitoring teams are mobilized. The WebPuff risk envelope takes into account uncertainty and the WebPuff isopleth is the most probable indicator of where a plume is located based on indicators. Monitoring RTAPs are then set up to monitor certain areas outside the risk envelope. RTAPs are also used at Personnel Decontamination Station (PDS) “hot” lines and at the decontamination shower at the clinic.

During an emergency, the OSC and the Crisis Management Team must take all measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste storage areas within the installation. Measures must include stopping processes and operations, collecting and containing released materials, and removing or isolating containers.

Sampling is accomplished by collection of an air sample at approximately the same sampling point as the near real-time (NRT) monitor or historical sampling location. Confirmation monitoring is used for informational, qualitative, and/or quantification data reporting purposes in the event of a chemical materiel release. The confirmation sample is analyzed by a different method (column, detector, or different type of instrument) than the NRT or historical method to minimize the likelihood of detecting interferences.

Immediately after an emergency, the OSC and Environmental Management Office (EMO) must provide treatment, storage, or disposal of recovered waste, contaminated soil, contaminated surface water, or any other material that results from the spill, release, fire, or explosion at the installation.

The OSC and the Crisis Management Team 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 cleanup procedures are completed.

- All emergency equipment is assessed for serviceability. Disposed equipment is replaced. Decontaminated equipment is inspected before being returned to its proper storage location.
- The Crisis Management Team must notify the appropriate state and local authorities that the installation is in compliance with these decontamination requirements before normal operations are to resume in the affected area(s) of the installation.

Upon effective containment of any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents, the Permittee must obtain an Emergency Permit from CDPHE before proceeding with any cleanup or other recovery operations, in accordance with 6 CCR 1007-3 § 100.10(a)(8) and § 264.1(g)(8)(iii).

Operations Center (OC)

The OC is utilized whenever there is an imminent emergency situation. Upon arrival at the spill or release location, the OSIC assesses the severity of the accident/incident and provides a situation status to the OC. The designated Operations Officer directs activation of the Crisis Management Team and immediately implements procedures to recall essential personnel.

4-5a Notification [6 CCR 1007-3 § 264.56(a) and (d)]

The OSC must note in the Operating Record the time, date, and details of any accident/incident requiring implementation of the Contingency Plan (i.e., a spill/release of a hazardous material/waste equal to or greater than the reportable quantity or if a release of mustard agent has occurred outside engineering controls). The Crisis Management Team must contact CDPHE within 24 hours of the time the Contingency Plan, including ISCP was implemented. Within 15 calendar days after the incident is closed, PCD must submit a written report to CDPHE Hazardous Materials and Waste Management Division. The written report is hand carried or sent by certified mail or an overnight delivery service.

The following information will be included in the report submitted to CDPHE:

- The name, address, and telephone number of the OSC

- The name, address, and telephone number of the facility
- The date, time, and type of accident/incident (e.g., spill, fire, explosion)
- The 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
- An estimated quantity and disposition of recovered material that resulted from the accident/incident.

4-5b Identification of Hazardous Wastes/Materials [6 CCR 1007-3 § 264.56(b)]

The emergency responders identify the character, exact source, amount, and extent of any release of hazardous waste or materials by visual inspection, by reviewing facility records and documentation, and by using their general knowledge of site operations and storage. The exact source of a hazardous waste or material release is initially identified by the discoverer and later confirmed by the OSIC. The discoverer of a potential chemical agent release will make the incident known through use of horns, verbal notification of “Gas! Gas! Gas!”, or banging metal items to call attention to the incident. After any indication of a chemical accident, all PCD personnel will don protective masks at the accident/incident site.

Any release of an unknown material is not anticipated. However, if a released material cannot be readily identified, samples may be collected for analysis. In the event that material cannot be identified by analysis, a “Maximum Credible Event” (MCE) situation is assumed and commensurate response procedures are initiated.

4-5c Hazard Assessment [6 CCR 1007-3 § 264.56(c)]

An assessment on possible hazards to human health and the environment is conducted as part of the planning process required to conduct the emergency response.

The OSC, in coordination with 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. To assist the OSC in assessing the hazards, the following information is considered:

- Whether the nature of the hazard is known, unknown, or can be reasonably assumed
- The degree of toxicity of the material
- The presence and effect of any toxic, irritating, or asphyxiating gases that may be present as a result of controlling a fire
- Containment of a spill or lack of containment
- Uncertainty as to the effects of any migration of wastes or water used in fire control to either groundwaters or surface waters
- The ability of response teams to contain the emergency.

4-5d Notification Procedures [6 CCR 1007-3 § 264.56(d)]

If the OSC or designee determines, based on the assessment, that the incident could threaten human health or the environment outside PCD, he or she directs the Crisis Management Team to notify the NRC and the appropriate local/state agencies. The OSC provides the following:

- Name and telephone number of the Emergency Coordinator/PCD OC
- Name and address of facility
- Time and type of incident (e.g., release, fire)
- Names and quantity of material(s) involved, to the extent known

- The extent of injuries, if any
- The possible hazards to human health or the environment, outside PCD
- An estimated quantity and disposition of recovered material that resulted from the accident/incident.

The PCD OC contacts the Pueblo County EOC and provides the appropriate information.

4-5e Control Procedures [6 CCR 1007-3 § 264.52(a)]

The responses and control procedures described in this section are initiated in the event of an incident involving chemical agent or hazardous waste/hazardous materials at PCD involving fire, explosion, spill, or vapor release of chemical agent or other hazardous materials that pose a possible threat to human health and the environment. Also included are procedures followed in response to incidental spills or releases. Regardless of situation, initial response will assume the highest level of PPE commensurate with the release.

4-5e(1) Incidents Involving Fire or Explosion

The PCD CAIRA Plan or PCD ISCP is implemented immediately if there is a fire or explosion that causes a release of toxic chemical agent or hazardous material.

The OSIC or designee immediately assesses all fires/explosions to determine the following information: material(s) involved; exact source of release; quantity of release; release classification: (1) release to the environment or (2) release contained, extent of any materials released to the environment, and extent of injuries.

4-5e(2) Procedures to Respond to Potential Explosion

If a chemical incident involving a potential explosive release from an explosively-configured munition occurs, all personnel are removed from the area and an exclusion zone and a hot line are established. PCD then requests U.S. Army Explosive Ordnance Disposal (EOD) support. An EOD unit will be sent to

PCD, and PCD personnel will provide an initial briefing on the incident. The EOD unit will conduct the initial assessment and inform PCD when the site is safe for follow-on PCD crews to work.

4-5e(3) Procedures to Respond to Incidental Spills and Releases

The following actions are taken in the event of incidental spills or releases:

1. Wear appropriate protective clothing per the direction of Site Safety and Health Officer. PPE selection is determined by evaluating indicators of agent present, such as AEGL or concentration footprint, and associated risk envelope for personnel protection. For a suspected release of chemical agent, a hot line is established outside of the risk envelope, as based on current projected downwind hazards and weather changes. Any personnel responding to a spill or release on the “hot side” of the hot line will wear Occupational Safety and Health Administration (OSHA) Level A or B PPE. Personnel on the “cold side” of the hot line will wear various levels of PPE, including OSHA Level C and D. For response to a known chemical agent release, response personnel will wear OSHA Level A PPE. The Incident Commander will evaluate the spill or release and adjust PPE levels as needed.
2. Contain the spill in the smallest area possible using absorbent socks, berms, or other means.
3. Repair or plug the leak, if possible.
4. Decontaminate the release area in accordance with **Appendix 4-6** to this Contingency Plan. On the hot side of a spill or release, high test hypochlorite (HTH) bleach is used to decontaminate the area. Personnel in OSHA Level A or B walk toward the spill or release area, spraying HTH in the direction of the spill.
5. For container spills, place container in overpack or remove container contents, if necessary, using a portable pump, and transfer material to a new container. If the material was released to secondary containment (for contents released from a container), released material either is pumped out of the containment area using a portable pump or absorbed using compatible absorbent materials such as pillows, socks, or granules.

6. Decontaminate equipment and clothing in accordance with **Appendix 4-7** to this Contingency Plan.
7. Manage spent chemical agent decontamination solutions and other waste decontamination solutions as hazardous waste.
8. Place absorbed or pumped material into United Nations (UN) rated containers, label appropriately, and store in a less than 90-day storage area pending shipment to a permitted treatment, storage, and disposal facility.

4-5f Prevention of Recurrence or Spread of Fires, Explosions, or Releases [6 CCR 1007-3 § 264.56(e) and (f)]

During an emergency, the OSC and the Crisis Management Team must take all measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous materials or wastes 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 OSC and the Crisis Management Team must ensure that all valves or pipes and other related, affected equipment are monitored for potential leaks, pressure build-up, gas generation, and ruptures.

Some overpacked munitions in the RCRA-permitted hazardous waste management units G203, G1009, G1107, G1109 and G1110 contain explosives (bursting, propellant, and fuzes). Detonation of an explosively configured munition presents not only a hazard to personnel and property from the blast effects, but also a hazard from the spread of chemical agent. Requirements for safely handling, transporting, and storing ammunition and explosives are described in the following regulations and standards:

- 6 CCR 1007-3, Section 264.17
- Federal Register, 53 FR, 8504-8507
- Army Materiel Command Regulation (AMCR) 385-100, Safety Manual

- Standard Practice for System Safety, MIL-STD-882E
- Department of Defense Explosives Safety Board (DDESB), DoD Ammunition and Explosive Safety Standards, DoD 6055.9-STD
- DA Pam 385-64 for explosives
- DA Pam 385-61.

An explosion represents a fire hazard. The OSIC and the Fire and Emergency Services Department respond to fires or explosions occurring in the PCD hazardous waste storage units, unless fire/explosion is beyond the capabilities of these two units. For nonagent-related fires only, the OSIC calls the mutual aid support agency directly. In accordance with AMCR 385-100, if a fire involves explosive materials or is supplying heat to explosives, or if the fire is so large that it cannot be extinguished with the equipment at hand, the personnel involved shall evacuate and seek safety. All fire response personnel are provided with appropriate protective clothing and safety equipment. Care is taken to contain and recover any runoff of waste, water, foams, or chemicals applied to the fire. If possible, the area is bermed and/or any runoff drains blocked prior to applying liquids to the fire. Once extinguished, the materials involved in the fire and surrounding area are decontaminated (if necessary), recovered, and placed in containers for proper disposal.

In the event of a fire, the major effort is focused on preventing the fire from spreading to nearby areas. The following actions are taken for indoor areas affected by a fire or explosion.

- Personnel close fire doors in buildings.
- Work in all areas is terminated immediately.
- The Fire and Emergency Services Department and the OC are contacted.

- All personnel not actively involved in fighting the fire clear the area. Non-emergency personnel report to the designated assembly point for a head count.
- All injured persons are removed and qualified personnel administer medical treatment.

If the Fire and Emergency Services Department decides that the chances of an explosion are high, the entire area within a 450 meter (1,250-foot) radius of the source is evacuated. All personnel are trained in evacuation procedures and means of exit from their respective work areas (see Section 4-7).

Until evacuation is signaled, personnel who are not in an affected area stay in their respective work areas. Visitors are cleared from the area and instructed to report to a designated assembly point. The Fire and Emergency Services Department is responsible for all fire-fighting efforts until help from outside sources arrives. Supervisors of unaffected areas stay with their personnel and are ready to evacuate and account for the persons under their supervision.

An “all clear” signal is given when the fire is extinguished, personnel are no longer endangered, and the Fire and Emergency Services Department has determined the emergency has passed. All emergency equipment used in the emergency response is cleaned and decontaminated using the process outlined in the Waste Analysis Plan, **Attachment 3** of this Permit.

Before operations are resumed, the OSIC conducts an inspection of all safety equipment to ensure the equipment is fit for future use. When the inspection is completed, the Crisis Management Team notifies the USEPA Regional Administrator, state and local authorities, and Major Command that the response operations are satisfactorily completed. The Fire and Emergency Services Department also informs the OC of the status of the emergency equipment and when normal operations can resume (see Section 4-9, Required Reports).

4-5g Storage and Treatment of Released Material [6 CCR 1007-3 § 264.56(g)]

Soil contaminated with oil or hazardous materials/wastes is removed with the appropriate removal equipment, such as hand tools for small removals, or heavy construction equipment (backhoes, scoop loaders, etc.) for larger removals. Contaminated soil is assessed to determine appropriate management actions. Any soil, water or debris contaminated with agent are considered listed K902 hazardous wastes and must be managed appropriately. The EMO manages disposal of contaminated material.

Spilled or contaminated material resulting from a hazardous material/waste accident or incident is collected immediately, characterized, and placed in appropriate hazardous waste storage units until final disposal. For chemical agent spills, the CAIRA Plan is followed.

4-5h Incompatible Waste [6 CCR 1007-3 § 264.56(h)(1)]

After proper identification, the OSC ensures that any waste that may be incompatible with the released material is not treated, stored, or otherwise managed in the area in which the incident occurred until cleanup procedures are completed.

4-5i Post-Emergency Equipment Maintenance [6 CCR 1007-3 § 264.56(h)(2) and 264.56(i)]

Before operations resume, all safety equipment is inspected. Emergency equipment is also cleaned, inspected, and maintained by the equipment user. State authorities are notified that post-emergency equipment maintenance is completed and that operations resumed.

When this Contingency Plan is implemented, and decontamination and cleanup are completed in affected areas, the Crisis Management Team notifies CDPHE and any local authorities (as applicable) that:

1. Cleanup of the affected areas is completed so that site operations may be resumed without risk of incompatible material coming into contact with spilled material.
2. All emergency equipment is cleaned and readied for its intended use.

4-5j Container Spills and Leakage [6 CCR 1007-3 § 264.52 and 264.171]

Any spill or release of chemical agent from a container initiates response procedures discussed in the PCD CAIRA Plan.

Response to a nonagent-related container spill or leak is discussed in the ISCP. Spill or release events are to be reported to the OC and the Fire and Emergency Services Department using the emergency contact number 4911. The Crisis Management Team makes oral notifications to CDPHE. If a reportable quantity is equaled or exceeded, or a release to surface water has occurred, the Crisis Management Team

completes and submits the Pollution Incident Report and the appropriate follow-up reports within 15 calendar days to CDPHE.

The procedures to be used to contain spills or leakage, including the removal of leaked or spilled waste and the repair of containers, are discussed in Section 4-5e, Control Procedures.

4-6 EMERGENCY EQUIPMENT [6 CCR 1007-3 § 264.52(e)]

The following types of emergency equipment are maintained at PCD and the PCAPP EDS Site for emergency response and are listed in this Contingency Plan:

- Fire protection equipment
- Spill control equipment
- Decontamination equipment.

A list of installation emergency equipment maintained at PCD for response to emergencies that are related to permitted storage is provided in **Table 4-2** to this Contingency Plan.

Emergency equipment that will be maintained at the PCAPP EDS Site is provided in Table 4-3. In addition, the PCAPP EDS site will contain communication systems and a PDS at each Environmental Enclosure as follows:

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 to ensure personnel safety when working on contaminated or “hot” equipment. 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.

Land lines and/or cell phones will be the primary external communication equipment that will be used to summon emergency assistance from PCD security, police, fire department, and/or emergency response teams. Hand-held radios and cell phones may also be used to summon external assistance in an emergency.

Each PDS consists of equipment for personnel and equipment decontamination purposes. When treating chemical agent fills, a 5 percent solution of sodium hypochlorite (NaOCl) will be used at each PDS for equipment, along with a detergent and water solution for personnel.

4-7 COORDINATION AGREEMENTS [6 CCR 1007-3 § 264.37 and 264.52(c)]

PCD maintains its own security force, health clinic, and Fire and Emergency Services Department that serve as the primary authorities for emergency response. The Fire and Emergency Services Department serves as the emergency response team for all incidents involving industrial and/or chemical facilities. These personnel are trained to respond to all incidents that could be encountered at this installation.

Coordination agreements are established within local agencies in the PCD region. Reciprocal medical service agreements are established with the Parkview Episcopal Medical Center and St. Mary Corwin Hospital. Reciprocal fire protection agreements are in place with the Boone Fire Department, Pueblo Rural Fire Department, TTCI and Pueblo County ESB. An example of the agreement is contained in Appendix C of the ISCP, **Appendix 4-2** of this Contingency Plan. Signed copies are kept onsite.

4-8 EVACUATION PLAN [6 CCR 1007-3 § 264.52(f)]

In the event of a health, safety or life-threatening accident, the involved facility is evacuated in accordance with the evacuation plan for that location. Evacuees are directed to a safe area by PCD Security, under direction of the OSC and the OC. The PCD Evacuation Plan and a map of the PCD evacuation routes are attached as **Appendix 4-9** to this Contingency Plan as required by 6 CCR 1007-3 § 264 and 265.52(f).

Personnel assigned to the PCAPP EDS site will be instructed in evacuation signals, procedures, and routes from the PCAPP EDS site.

Evacuation routes from the PCAPP EDS site will be posted onsite. If the PCAPP EDS footprint or the installation needs to be evacuated, procedures for evacuation in the PCD Installation Emergency Management Plan will be implemented, and the installation will coordinate with local officials, as required.

Evacuation of the PCAPP EDS Site

Evacuation procedures are as follows:

1. Upon direction to evacuate, all personnel in the area will be notified of the evacuation by an audible alarm and/or vocal command.
2. If an incident occurs inside the Environmental Enclosure, non-essential personnel (as defined by the RCMD Site Manager or designee) will don protective masks and will proceed outside to an upwind assembly point to receive further instructions from the RCMD Site Manager or designee. All essential personnel will don protective masks (unless already in higher level PPE) and will rally at the PDS to prepare to decontaminate the contaminated area. If the incident has occurred outside the Environmental Enclosure, the same procedure will be followed and all non-essential personnel will be evacuated from the assembly point to a safe distance upwind of the incident. Personnel will be accounted for at the assembly area. Windsocks located at the site will indicate wind direction. If evacuation is based on chemical accident/incident from the Chemical Limited Area, PCD OC will provide evacuation route to follow.
3. The RCMD Site Manager or designee will identify the evacuation route from the PCAPP EDS site as applicable, based on the type of incident and prevailing wind.
4. PCAPP EDS site personnel will evacuate the area following the determined evacuation route. Evacuation routes are discussed and illustrated in **Appendix 4-9** of this Plan. That information is not available to the public, but it is on file with CDPHE Hazardous Materials and Waste Management Division (HMWMD) as “Confidential – Not For Public Release.”
5. The RCMD Site Manager or designee will contact the PCD OC and will indicate the number of injured personnel. Personnel who are injured or may have been exposed to non-hazardous chemicals or chemical agents will be decontaminated in the PCAPP EDS site PDS, then taken to a hospital.
6. All other personnel will evacuate to the identified assembly point.

4-9 REQUIRED REPORTS [6 CCR 1007-3 § 264.56(j)]

Any incident requiring implementation of the Contingency Plan is noted in the Operating Record. The CDPHE is notified that the following conditions are met before resuming operations:

- The cleanup is complete and that at no time during a response were wastes that were incompatible with the released materials treated, stored, or disposed of.
- All emergency equipment used to respond to this incident is cleaned and again fit for its intended use.

Within 15 days after an incident that requires implementation of this Contingency Plan, the incident is reported to the Hazardous Waste Division of CDPHE, to the director of CDPHE, and is noted in the Operating Record. The CDPHE is sent a written report within the 15 days specified in the regulation. The report includes the following information:

1. Name, address, and telephone number of the owner or operator
2. Name, address, and telephone number of the facility
3. Date, time, and type of incident
4. Name and quantity of material(s) involved
5. The extent of injuries, if any
6. An assessment of actual or potential hazards to human health or the environment, where this is applicable
7. Estimated quantity and disposition of recovered material that resulted from the incident.

Table 4-1. Telephone Numbers for Emergency Coordinators

Title	Telephone Number
On-Scene Incident Commander (OSIC) LTC Michael Quinn	(719) 549-4911 (719) 549-4655
Operations Center (OC)	(719) 549-4211
Installation Emergency Manager Mr. Paul Corbett Mr. Vince Blunn	(719) 549-4300 (719) 549-5115
PCAPP EDS RCMD Site Managers: Mr. Steve Bird Mr. Derek Romitti Ms. Sarah Jordan Mr. John Marks Mr. Bill Adams	RCMD Office (719) 549-4711
Pueblo County Emergency Operations Center	(719) 583-6259 (Dispatch)

Table 4-2. List of Available Equipment for Use by the Installation Response Force

Equipment	Capability	Quantity ^a	Location ^b
CHEMICAL OPERATIONS			
RTAP	Air Monitoring	9	BLDGs 593/129Z & 85 LAMS
MINICAMS [®]	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
DEPARTMENT OF PUBLIC WORKS			
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. List of Available Equipment for Use by the Installation Response Force (Continued)

Equipment	Capability	Quantity ^a	Location ^b
FIRE DEPARTMENT			
HAZMAT Response Trailer/Fire and Emergency Services	Contains 1 Overpack Drum, 1 55-gallon drum, 8 multi-threat suits, 2 TYVEX® 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. List of Available Equipment for Use by the Installation Response Force (Continued)

Equipment	Capability	Quantity ^a	Location ^b
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:

^a 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.

^b 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

Table 4-3. PCAPP EDS Site Emergency Equipment

- I. PCAPP EDS General Storage (H1101)
 - A. 95-Gallon spill kit
 - 1. Sorbent materials
 - 2. Scoop
 - 3. Respiratory and eye protection equipment (goggles)
 - 4. Nitrile gloves
 - 5. Dust pan
 - 6. Broom
 - 7. Disposal bags and ties
 - 8. Spill socks (small and large)
 - 9. ERG book
 - B. 55-Gallon wheeled salvage drum
 - C. 95-Gallon poly overpack wheeled salvage drum
 - D. Fire Extinguisher (ABC)

- II. PCAPP EDS Environmental Enclosures
 - A. 55-Gallon spill kit
 - 1. Disposal bags
 - 2. Spill socks (medium)
 - 3. Spill pads
 - 4. Duct tape
 - 5. ERG book
 - 6. Instruction sheet SDS
 - B. 55-Gallon poly drum
 - C. Fire extinguisher (ABC)

- III. PCAPP EDS Personnel Decontamination Station Environmental Enclosures
 - A. 55-Gallon spill kit
 - 1. Disposal bags
 - 2. Spill socks (medium)
 - 3. Spill pads
 - 4. Duct tape
 - 5. ERG book
 - 6. Instruction sheet SDS
 - B. 55-Gallon poly drum
 - C. Wet/dry vacuum
 - D. Fire extinguisher (ABC)

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APPENDIX 4-1
PCAPP EDS SITE EMERGENCY ACTIONS
PUEBLO CHEMICAL DEPOT
PUEBLO, COLORADO

EMERGENCY ACTIONS [6 CCR 1007-3 § 264.56]

The emergency procedures presented in the following paragraphs are those to be followed by the PCAPP EDS site personnel. Once notification of an emergency has been made that implements the PCD CAIRA Plan, procedures presented in that plan will be followed.

4-1-1a Notification [6 CCR 1007-3 § 264.56(a) and (d)]

When a chemical agent, hazardous waste/hazardous material accident/incident emergency occurs at the PCAPP EDS site, the following procedures will be followed:

1. The discoverer of the incident will immediately notify the RCMD Site Manager or designee of the incident by vocal command (for example, person to person, telephone, radio). If the incident involves release of chemical agent outside of engineering controls, the PCD OC will be immediately notified and the CAIRA Plan will be implemented.
2. The RCMD Site Manager or designee will visually assess the incident and notify and provide input to the PCD OC.
3. 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.
4. Upon notification of an emergency, all EDS processing and support operations will be suspended and items being processed will be secured.
5. The RCMD Site Manager or designee as emergency coordinator will evaluate the incident and determine if the PCD OC should be contacted to request assistance or evacuate the local area in accordance with the PCD CAIRA Plan or ISCP. The OC 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.

4-1-1b Identification of Hazardous Materials [6 CCR 1007-3 § 264.56(b)]

The RCMD Site Manager or OSIC as emergency coordinator of the incident will identify the character, exact source, amount, and extent of any release of hazardous waste or materials inside the EDS Units, their associated Environmental Enclosures, H1103 or the H1103 Roll-off Container Storage Area. The exact source of a hazardous waste or material release is initially identified by the discoverer and later confirmed by the RCMD Site Manager or OSIC as emergency coordinator. After any indication of a chemical accident, all PCAPP EDS personnel in the affected area will don protective masks at the accident/incident site. The RCMD Site Manager or OSIC as emergency coordinator establishes a field Command Post and oversees all operations/activities performed at the accident site. The RCMD Site Manager or OSIC as emergency coordinator will maintain radio contact with the PCD OC.

Known chemical spills will be managed at the PCAPP EDS site. Therefore, any release of an unknown material is not anticipated. However, if a released material cannot be readily identified, samples may be collected for analysis. In the event that material cannot be identified by analysis, a “worst-case” situation will be assumed and commensurate response procedures will be initiated.

4-1-1c Hazard Assessment [6 CCR 1007-3 § 264.56(c)]

An assessment on possible hazards to human health and the environment will be conducted by the RCMD Site Manager or designee as emergency coordinator to conduct the emergency response. The assessment will consider both direct and indirect effects to site personnel of any release inside the EDS Units or their Environmental Enclosures and/or H1103.

If a spill or release occurs at the PCAPP EDS site, the RCMD Site Manager or designee will immediately assess all spills/releases to determine the following information: material(s) involved; exact source of release, or quantity of release.

At a minimum, the RCMD Site Manager or designee will consider the following:

- Whether the nature of the hazard is known, unknown, or can be reasonably assumed
- The degree of toxicity of the materials involved
- The presence and effect of any toxic, irritating, or asphyxiating gases
- Containment of a spill or lack of containment

- Uncertainty as to the effects of any migration of wastes or decontamination wastes outside of engineering controls
- The ability of PCAPP EDS personnel to safely contain the emergency.

The RCMD Site Manager or designee will then provide input to the PCD OC.

4-1-1d Notification Procedures [6 CCR 1007-3 § 264.56(d)]

If the RCMD Site Manager or OSIC determines, based on the assessment, the incident could threaten human health or the environment outside engineering controls, he or she notifies the PCD OC and the PCD Contingency Plan is implemented.

4-1-1e Control Procedures [6 CCR 1007-3 § 264.52(a)]

The responses and control procedures described in this section will be initiated in the event of an incident involving chemical agent or hazardous waste/hazardous materials at the PCAPP EDS site involving fire, explosion, spill, or vapor release of chemical agent or other hazardous materials that pose a possible threat to human health and the environment. Regardless of the spill or release situation, initial response will assume the highest level of PPE commensurate with the release.

Incidents Involving Fire or Explosion

The PCD CAIRA Plan or ISCP will be implemented immediately if there is a fire or explosion that involves, or could spread to, hazardous waste management areas at the PCAPP EDS site. If a larger area needs to be evacuated, procedures for evacuation in the PCD CAIRA Plan will be implemented, and the installation will coordinate with local officials, as required.

The RCMD Site Manager for the PCAPP EDS site or designee will immediately assess all fires/explosions to determine the following information: material(s) involved; exact source of release; quantity of release; release classification: (1) release to the environment (not wholly contained in the PCAPP EDS site Environmental Enclosure, supply storage area, or hazardous waste storage areas) or (2) release contained, extent of any materials released to the environment, and extent of injuries.

The RCMD Site Manager or designee will then provide input to the OC.

Procedures to Respond to Incidental Spills and Releases

The following actions will be taken in the event of incidental spills or releases from any container, tank or ancillary equipment, EDS unit or secondary containment system inside an Environmental Enclosure, H1103 or the H1103 Roll-off Container Storage Area at the EDS site:

1. Wear appropriate protective clothing per the direction of SSHO. PPE selection is determined by evaluating indicators of agent presence, such as measured air concentrations inside the Environmental Enclosure, and/or any associated risk due to the presence of other hazardous wastes or materials. For a suspected release of chemical agent, the hot line established at the Environmental Enclosure will be maintained. Any personnel responding to a spill or release on the “hot side” of the hot line will wear OSHA Level A or B PPE. Personnel on the “cold side” of the hot line will wear various levels of PPE, including OSHA Level C and D.
2. Contain the spill in the smallest area possible using absorbent socks, berms, or other means.
3. Repair or plug the leak, if possible.
4. Decontaminate the release area in accordance with the Decontamination Plan, **Appendix 6-1** to the Closure Plan, **Attachment 6**, of this Permit. HTH bleach will be used to decontaminate the area. Decontamination will occur in an organized direction from the outside to the source of the spill or release.
5. For container, tank, or EDS leaks or spills inside an Environmental Enclosure, the container, tank or EDS must be repaired or removed from service immediately if leaking. For leaks from any ancillary equipment to the EDS, the leak immediately ceased by isolating wastes from the leaking or ruptured equipment. Containers that leak must be placed in overpack containers or have their contents removed, if necessary, using a portable pump, and transferred to a new container. A leaking tank or EDS unit will have their contents removed using system pumps or a portable pump if necessary and transferred to new containers. Hazardous wastes released to secondary containment will

either be removed from the containment area using equipment such as a portable pump or absorbed using compatible absorbent materials such as pillows, socks, or granules.

6. Decontaminate equipment and clothing in accordance with the Decontamination Plan, **Appendix 6-1 to Attachment 6** of this Permit and as directed by the RCMD Site Manager or designee as applicable.
7. Manage spent chemical agent decontamination solutions and other waste decontamination solutions as hazardous waste.
8. Place absorbed or pumped material into UN rated containers, label appropriately, and move wastes to permitted storage in H1102 pending treatment with HTH bleach or offsite shipment to a permitted hazardous waste storage, treatment and disposal facility.

Spills or Releases Outside Engineering Controls

In the event of a chemical agent spill or release outside engineering controls on the PCAPP EDS site, the PCD Contingency Plan, including CAIRA Plan will be implemented. For spills or releases of non-chemical agent hazardous wastes or materials outside engineering controls, the PCD Contingency Plan, including ISCP will be implemented. If decontamination of terrain is required, decontamination measures will follow procedures specified in the current PCD ISCP.

If the spill or release is a reportable spill² or a release above the reportable quantity, notification will be made to the PCD OC. The OSC will evaluate the release and make additional notifications in accordance with the PCD ISCP, as required.

² Reportable spills are those entering surface waters or wetlands or any spill over 25 gallons or any release above the reportable quantity. Mandatory notifications should be made within 30 minutes of discovery of the discharge.

**4-1-1f Prevention of Recurrence or Spread of Fire, Explosion, or Release [6 CCR 1007-3
§ 264.56(e) and (f)]**

During an emergency within engineering controls at the EDS site, the RCMD Site Manager or designee as emergency coordinator of the incident must take all measures necessary to ensure that releases do not occur, recur, or spread to other hazardous materials or wastes. These measures must include, where applicable, stopping processes and operations, collecting and containing released wastes, and removing all containers, and isolating any leaking containers, tanks or ancillary equipment, or EDS units. All operations near a hazardous waste spill or release inside a Environmental Enclosure will be suspended by the RCMD Site Manager. All operations near a hazardous waste fire or explosion will be suspended by the PCD OC until cleared by the OSC as specified in the current PCD CAIRA Plan.

If operations are ceased in an Environmental Enclosure in response to a release, the RCMD Site Manager or designee must ensure that all valves or pipes and other related, affected equipment are monitored for potential leaks, pressure build-up, gas generation, and ruptures.

Prior to restarting PCAPP EDS site operations, the RCMD Site Manager or designee will conduct an inspection of all safety equipment to ensure the equipment is fit for future use. Process and structural equipment will be inspected for leaks, cracks, and other potential problems. Released waste will be properly collected and containerized after personnel safety is assured and the released material has been identified. Containers of waste will be isolated from other waste and stored in permitted storage pending treatment or shipment to a permitted treatment, storage, and disposal facility for further management.

A review of the cause of a chemical agent or hazardous waste/hazardous material release will be conducted by the RCMD Site Manager or designee. The operation that caused the release will not be restarted until adequate corrective and preventive measures have been determined and implemented. Any incident that necessitates implementing this Contingency Plan will be followed by a written report documenting review of the incident and the follow-up actions required. A written report is required for any incident where the Contingency Plan is implemented, including fires, explosions, and releases.

4-1-1g Storage and Treatment of Released Material [6 CCR 1007-3 § 264.56(g)]

Spilled or contaminated materials produced by a hazardous waste release inside the Environmental Enclosures will be collected, characterized, and stored in permitted storage pending shipment to a permitted treatment, storage, and disposal facility. Any water or debris contaminated with agent are considered listed K902 hazardous wastes and must be managed appropriately. The RCMD Site Manager or designee manages storage of any contaminated wastes.

4-1-1h Incompatible Waste [6 CCR 1007-3 § 264.56(h)(1)]

After proper identification, the RCMD Site Manager will ensure that any waste that may be incompatible with the released material will not be treated, stored, or otherwise managed in the area in which the incident occurred until cleanup procedures are completed.

4-1-1i Post-Emergency Equipment Maintenance [6 CCR 1007-3 § 264.56(h)(2) and (i)]

All emergency equipment used in responding to a spill or release will be decontaminated in accordance with the Decontamination Plan, **Appendix 6-1** to **Attachment 6**, and repaired or replaced as necessary prior to reuse.

Before operations resume, all safety equipment will be inspected. Emergency equipment will also be cleaned, inspected, and maintained by the equipment user. State authorities will be notified that post-emergency equipment maintenance has been completed and that operations will be resumed.

When this Contingency Plan is invoked and decontamination and cleanup are completed in the affected areas of the PCAPP EDS site, the PCD Environmental Officer will notify CDPHE and any local authorities (as applicable) that:

1. Cleanup of the affected areas has been completed so that PCAPP EDS site operations may be resumed without risk (i.e., that agent air concentrations in the Environmental Enclosure are no longer detected above 1 vapor screening level [VSL]).
2. All emergency equipment has been cleaned and readied for its intended use.

4-1-1j Container, Tank or Ancillary Equipment, or EDS Unit Spills and Leakage

[6 CCR 1007-3 § 264.52, § 264.171, § 264.194(c), § 264.601]

Cleanup or spills or releases from containers, tanks or ancillary equipment, or the EDS units into secondary containment will occur within 24 hours of their discovery. Cleanup or spills or releases from containers, tanks or ancillary equipment, or the EDS units outside secondary containment will occur immediately upon discovery.

APPENDIX 4-2
PCD SOP# PU-0000-M-302 EMERGENCY RESPONSE

COVER SHEET

1. PUEBLO CHEMICAL DEPOT
STANDING OPERATING PROCEDURE (SOP) FOR:

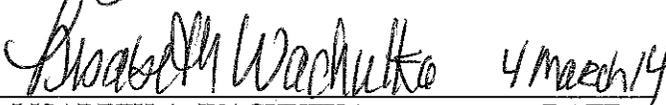
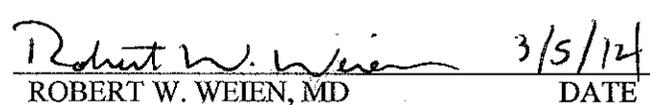
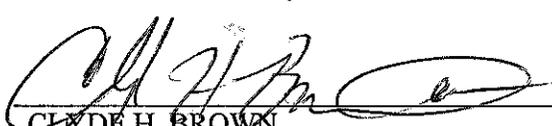
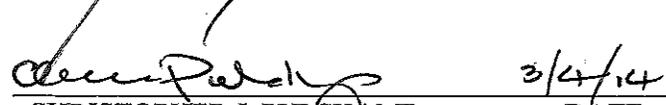
2. ITEM: a. Use of Emergency Response Equipment b. DODAC: NA c. Packaged: NA d. Unpackaged: NA e. Chemical Hazard Symbol: None	3. OPERATION: Emergency Response 4. ESTIMATED DAILY PRODUCTION RATE: CAIRA 5. ORGANIZATIONAL SYMBOL: CMPC-MOD-CD 6. SOP NO: PU-0000-M-302 DATE: 28 Oct 02 a. REV NO: 5 DATE: b. CHG NO: 6 DATE: MAR 4 2014 7. AUTHORITY: DA PAM 385-61 (13 Nov 2012) and AR 385-10 (23 Aug 2007)
---	--

8. PREPARED BY:  4 MAR 14 DATE TITLE: Toxic Material Handler
 KEVIN S. BESSERT PHONE DSN: 749-4548

9. REVIEWED BY:  5 MAR 14 DATE TITLE: Supervisor, Toxic Material Handlers
 THOMAS A. MARTINEZ PHONE DSN: 749-4306

10. SUBMITTED BY:  4 MAR 14 DATE TITLE: Chief, Chemical Operations Division
 HAWKINS M. CONRAD PHONE DSN: 749-4259

11. CONCURRENCES:

OFFICE	SIGNATURE/DATE	TITLE
DIRECTOR, MISSION OPERATIONS	<u></u> <u>4 MAR 14</u> DATE TRACY L. DAUWALDER	Director, Mission Operations
AMMUNITION SURVEILLANCE OFFICE	<u></u> <u>4 MAR 14</u> DATE LISABETH A. WACHUTKA	Chief, Ammunition Surveillance
OCCUPATIONAL HEALTH CLINIC	<u></u> <u>3/5/14</u> DATE ROBERT W. WEIEN, MD	Competent Medical Authority
CHEMICAL SURETY & COMPLIANCE OFFICE	<u></u> DATE CLYDE H. BROWN	Chemical Surety Officer
ENVIRONMENTAL MANAGEMENT OFFICE	<u></u> <u>3/4/14</u> DATE CHRISTOPHER J. PULSKAMP	Chief, Environmental Management Office
SAFETY & OCCUPATIONAL HEALTH OFFICE	<u></u> <u>3/4/14</u> DATE RANDY J. WOJTALA	Manager, Safety & Occupational Health

12. APPROVAL:  DATE: 5 MAR 14
MICHAEL S. QUINN
LTC, CM
Commanding

SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE _____

SOP
SUBMITTAL SUMMARY SHEET
Proponent is Chemical Operations Division

INSTALLATION: PUEBLO CHEMICAL DEPOT, PUEBLO COLORADO DATE SUBMITTED _____

SOP NO: PU-0000-M-302 Rev 5 Ch 6

REASON FOR SUBMITTAL: PROCEDURES INVOLVE MATERIAL THAT IS:

<u> </u>	NEW	EXPLOSIVE	<u>XX</u>
<u> </u>	REVISION	INERT	<u>XX</u>
<u>XX</u>	CHANGE	TOXIC CHEMICAL MUNITIONS	<u>XX</u>

TYPE SOP

 MAINTENANCE (RENOVATION, MODIFICATION, SUPERVISOR)

 PRESERVATION & PACKING

 DEMILITARIZATION

 RECEIPT, STORAGE AND ISSUE

 INSPECTION/SURVEILLANCE TEST

 ADMINISTRATIVE

XX OTHER:

OPERATION COVERED BY SOP

 OPERATION IS UNDERWAY AND WILL CONCLUDE

 OPERATION IS SCHEDULED TO START ON OR ABOUT

XX OPERATION IS CONDUCTED INTERMITTENTLY

 OPERATION IS CONDUCTED ON A CONTINUING BASIS

SOP

SUPERVISOR'S STATEMENT

1. The Supervisor will sign this statement:
 - a. When first assigned as supervisor of the operation.
 - b. When an approved change is made to the SOP.
 - c. At least once per quarter during continuing operations.
 - d. After absence from the job in excess of 15 consecutive workdays.

2. I have personally reviewed each of the operational steps and the Hazard Analysis of the SOP and have no question in my mind that the operation can be performed safely, efficiently, and in compliance with environmental restrictions noted in the SOP.

3. I have verified to my satisfaction that operators have been trained and are capable of performing their part of the operation in a safe and efficient manner and have instructed them to follow the SOP without deviation.

SUPERVISOR'S PRINTED/TYPED NAME: _____

SUPERVISOR'S SIGNATURE

DATE

INDEX OF OPERATIONS

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7	Limited Area/Igloo	N/A	N/A	Processing of Personnel in Level B	40
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1. REMARKS:

- a. This SOP is a combination of previous versions of Chemical Operations SOP PU-0000-M-285, M12A1 Decontaminating Apparatus/Decontamination and Encapsulation of Leaking Munitions; and SOP PU-0000-M-302, Chemical Agent Decontamination and PCD SOP-PU-0000-M-282, Removal, Decontamination, Encapsulation and Transportation of Leakers.
- b. Revision 5 updates pre-operation and emergency response procedures based on current operating protocol.
- c. Change 1 reviewed to comply with the annual PCD document review schedule.
- d. Change 2 updates based on operator training conducted on M12A1 and comments from PDS Team members.
- e. Change 3 updates signature page, references and general safety requirements. Incorporates minor changes identified in the annual review. Added equipment inspection worksheet for the M12A1. Removed Medical Monitoring Record form.
- f. Change 4 incorporates a recommendation identified by the DAIG, a general safety requirement has been added for personnel not to remove their personal protective clothing and/or equipment (PPE) until such time that they are processed through a decontamination/hotline.
- g. Change 5 updates signature page. Updates Appendix A Personal Protective Clothing and equipment to allow for commercially available and approved PCE to be worn. Updates minimum personnel requirements for manning of the MPDS on the hot side. Updates minor procedural changes identified in the annual review.
- h. Revision 5, Change 6 of SOP PU-0000-M-302, Emergency Response, updates the signature page, makes changes and additions to the General Safety Requirements, adds pages to the Operator's Statement for signatures, makes changes to Operation 2, updates Operation 11, 12, and Appendix A. Incorporates minor changes throughout and completes annual review.

2. REFERENCES:

- a. DA PAM 385-61, Toxic Chemical Agent Safety Standards
- b. PCD SOP-PU-0000-M-486, Chemical Operations
- c. TM 3-4230-237-10, Operators Manual for M12A1 Decontamination Apparatus
- d. PCD R 385-507, Occupational Safety and Health Prevention of Heat Stress Related Illness
- e. AR 385-10, Army Safety Program
- f. FM 3-11.5, CBRN Decontamination
- g. AR 200-1, Environmental Protection and Enhancement
- h. PCD-R 40-20, Respiratory Protection Program
- i. TM 3-4240-346-20&P, Unit Maintenance Manual for Chemical Biological Mask: Field M40M1
- j. PCD-R 385-12, Occupational Safety and Health
- k. TM 10-8415-231-12&P Operator's and Unit Maintenance Manual for Self-Contained Toxic Environment Outfit
- l. AMC-R-700-107, Preparation of Standing Operating Procedures for Ammunition Operations
- m. DA PAM 40-173, Occupational Health Guidelines for the Evaluation and Control of Occupational Exposure to Mustard Agents H, HD, and HT
- n. Mobile Personnel Decontamination System with System Upgrade Package Operations and Maintenance Manual
- o. AR 50-6, Chemical Surety
- p. PCD RCRA Hazardous Waste Permit #CO-02-08-08-01
- q. PCD CAIRA Plan

SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

- r. Installation Emergency Management Plan
- s. DA Pam 525-27 Army Emergency Management

3. GENERAL SAFETY REQUIREMENTS:

- a. A copy of this SOP shall be available at the operation site. Supervisory personnel shall maintain copies of a complete SOP and be responsible for the enforcement of its provisions.
- b. There will be no deviation or change from this SOP without formal staffing and approval. If operational situations occur that have not been addressed in this SOP, a change will be made and approved prior to resumption of operations.
- c. Employees will not tamper with any safety devices or protective equipment.
- d. For any defect or unusual condition noted that is not covered by this SOP, field operations will stop: the Site Lead/Supervisor will report findings to the appropriate personnel: Chief, Ammunition Surveillance Office (4159), the Safety and Occupational Health Office (4533), and/or the Chief, Chemical Operations (4259) to determine the corrective action prior to resuming operations.
- e. The supervisor is responsible to report all injuries and accidents occurring within their area of responsibility to the Safety and Occupational Health Office (4533) and the Operations Center (4211). The report will first be telephonic, followed by completion and forwarding of the proper forms for the type of injury/accident.
- f. Attempts to extinguish fires in the vicinity of toxic chemical munitions may be immediately performed with available fire extinguishing materials, if the fire is in the early (incipient) stage. However, if the fire has grown beyond the incipient stage, personnel will evacuate to a minimum distance of 450 meters or a distance equal to three magazines away from the location of the fire. The Operations Center (x4211) will be notified of the fire as soon possible.
- g. Portable equipment and hand tools used in agent operations must be identified by a permanent marking system that cannot be removed through further use in agent operations, decontaminations, or maintenance. Storage of such items should be segregated from items not used in agent operations. Inventory of tools will be maintained to validate decontamination status and history.
- h. The Operations Center will serve as the central control point for coordination of emergencies and will be informed of all agent operations. Operations will be coordinated with all required support organizations (medical, security, logistics, etc.).
- i. Eye decontamination of liquid agent will be conducted prior to evacuation. Flush the eyes immediately with water (not soap or bleach) utilizing a 15-minute eyewash station. Supplemental eyewash will be used to supplement the 15-minute eyewash station as necessitated by the situation. If using supplemental eyewash, tilt the head first to the side before pulling the eyelids apart and pour water slowly into the eye.
- j. Any agent exposure, suspected agent exposure, agent spill or release, or other abnormal situations that may result in personnel injury must be reported to supervisory personnel immediately after emergency action is taken. Personnel with possible agent exposures will report for medical evaluation as soon as possible.
- k. Care will be taken to limit potential exposure of a minimum number of personnel, for a minimum period of time, to a minimum amount of hazardous material consistent with safe and efficient operations.
- l. Workers will have an unobstructed path of travel to the nearest available exit. Personnel will be aware of immediate surroundings.
- m. Work locations will be maintained in a neat and orderly condition.
- n. Personnel who work in agent operations will report to work with their face clean-shaven to the extent that an adequate seal can be obtained and maintained between the face and the protective mask.
- o. Personnel with open sores will have them evaluated at the Occupational Health Clinic (OHC) and based on evaluation the open wound may be treated in a manner that would allow access to chemical limited/exclusion area.
- p. Personnel involved in agent operations will not wear contact lenses. Visitors and transients who would normally only don protective mask for evacuation are exempt from this requirement.

q. Eating, drinking, chewing, smoking or applying cosmetics within the Chemical Limited Area (CLA) are permitted only in specifically designated locations. Food, non-alcoholic beverages, chewing gum, and tobacco products may be carried through the CLA directly to buildings 492 or 475 for consumption and use during mealtime and breaks.

r. Drinking water or other suitable replenishment liquid may be located 100 feet upwind, based on local risk assessment.

s. All personnel engaged in material handling operations will wear safety footwear.

t. Leather or leather-palmed gloves safety glasses, and face shield will be worn during banding operations and/or when contacting munitions boxes or pallets, or when handling any other item that could cause punctures or damage to butyl gloves or the hands.

u. All hand tools shall be maintained in a good state of repair.

v. Chemical ammunition to be moved will be physically counted by inventory personnel when loaded into the Modified Ammunition Vehicle (MAV) and again upon arrival at the destination.

w. The work area will be clearly defined and access limited to authorized personnel only who have received appropriate safety training or are accompanied by someone who has been trained.

x. Work not necessary to the operation, will not be performed in the areas of agent operations.

y. Adequate operable detection equipment and materials must be maintained at all work areas. Wind-direction indicators must be provided at all areas and located so they are readily visible to personnel in the area.

z. Telephones, radios, or other means of communications for advising the Operations Center of emergencies must be available at the worksite.

aa. Decontamination and first-aid equipment will be positioned at all agent operations sites. Designated personnel will be trained to operate this equipment in the event of an emergency.

bb. A vehicle, suitable for use as a patient transport vehicle, will be readily available at the job site whenever operations are in progress.

cc. All personnel who work with or have some association with chemical agents and munitions or have a potential for exposure will receive training to enable them to work safely and to understand the significance of agent exposures. Prior to being assigned to operations or in support of operations, as a minimum, personnel will demonstrate proficiency as outlined in DA-PAM 385-61.

dd. All personnel working with agent will be given an off-duty telephone number to which suspected exposures can be reported.

ee. Workers will immediately report any illness/injuries that occur during working hours to the supervisor prior to leaving the installation.

ff. Operators lifting material will use proper safe handholds, assume proper lifting positions, avoid sharp objects, and avoid twisting when lifting or carrying. Employees shall not lift over 45 pounds without mechanical assistance or the use of the "buddy system".

gg. Heat and flame producing items are prohibited in the CLA unless accompanied by the appropriate permit. The only exception is the flame photometric detector used in MINICAMS. Paint thinners, oily rags, and other highly flammable materials will be kept in approved, closed receptacles and be clearly marked.

hh. Safety Data Sheets (SDSs) will be kept readily available at Building 475 and 491. All incompatible hazardous material will be segregated to prevent contact with each other.

ii. Proper PPE/PCE will be worn in accordance with this SOP, SDS, or other applicable regulations and policies. All snaps, buttons, and buckles will be properly fastened while wearing PPE/PCE.

jj. Butyl rubber products that come in contact with petroleum products will be disposed of in accordance with regulatory guidance.

kk. Working in heat or cold stress environments will be in accordance with PCD-R 385-507, Occupational Safety and Health Prevention of Heat and Cold Related Injuries/Illnesses.

ll. A ground guide or spotter will be utilized during all forklift operations. Materials Handling Equipment (MHE) operators will have a valid operator's permit for the particular piece of equipment being utilized in their possession or at the change house. Seat belts will be used at all times.

mm. Type E, EE, ES, and EX rated battery-powered equipment is satisfactory for handling all classes of ammunition and explosives packed in accordance with Department of Transportation Regulations.

nn. MHE and other lifting devices will have the load rating and date of next inspection marked on them. The load rating will not be exceeded. TB 43-0142 and PCD-R 385-9 require that equipment not be used without a current inspection date.

oo. The minimum amount of air pressure required to perform the specific operation must be used. Air pressure over 30 PSI can cause serious injury to personnel. Compressed air used for cleaning shall comply with OSHA standards. The use of compressed air for removing foreign material from the body or personal attire is prohibited.

pp. All users of compressed air will utilize the proper protective clothing and equipment. All personnel involved in the operation will wear safety glasses.

qq. Adequate stocks of decontaminants and protective clothing required to respond to emergency situations must be maintained at the installation.

rr. Used decontaminating solutions will be collected, sampled and packaged IAW PCD Hazardous Waste Management Plan and stored in a hazardous waste storage site.

ss. Workers may enter an agent area unmasked to perform static operations (i.e. visual inspection without handling or touching the rounds, containers, or pallets) provided the storage igloo is being monitored with near real time monitors and the results indicate the agent concentration is below the set alarm level. First entry monitoring also will be completed prior to operations.

tt. Normally, only two operators may enter an igloo to perform first entry operations. An additional operator may enter the igloo when being trained on-the-job. Transient personnel may enter during first entry operations only when they have a need such as DAIG, SMR, and local safety and QA inspectors.

uu. Lightning protection and storm warning response procedures will be conducted in accordance with the Installation Emergency Management Plan.

vv. Perform ergonomics assessment of the work site.

ww. Safety glasses, goggles and or face shields are readily available and used by personnel working with chemical products.

xx. Adhere to PCD-R 40-1, Hearing Conservation.

aaa. Approvals for deviation, waivers, and exemptions' of standards addressed in this SOP will adhere to DA-PAM 385-30 and PCD's Risk Management, System Safety Engineering Management Plan.

bbb. Personnel involved in or responding to a chemical accident/incident will not remove their personal protective clothing and/or equipment (PPE) until such time that they are processed through a decontamination/hotline. Personnel removing PPE prior to the hotline removes their primary protection against chemical agent exposure and are at increased risk of contamination through agent exposure.

ccc. Jewelry should not be worn by personnel during chemical operations, as loss may occur during the decontamination process.

ddd. An "operator" will be defined as a person that is assigned to an operating area permanently or intermittently to perform a specific task, checkpoint, or function as required or defined in a SOP. A "transient" is a person who has official business or interest in an operation, but is not performing work to a specific operational procedure. Transient personnel

will include official visitors, supervisors, oversight personnel, or other interested parties that are not performing a function as delineated in a SOP.

eee. Real time physiological monitoring is required when utilizing impermeable ensembles Level A, B, C1, C2, D1 or any impermeable apron or suit (with or without a mask) that is determined to significantly inhibit evaporative cooling in ambient temperatures above 60 degrees F, or when ambient temperatures are predicted to be above 60 degrees F during operations requiring physiological monitoring. Real time physiological monitoring may also be required at temperatures below 60 degrees F at high work rates when high levels of metabolic heat are being generated by the employee.

4. ENVIRONMENTAL CONSIDERATIONS:

a. Consideration must be given to controls when performing operations that affect air, soil, surface water, and ground water. The Environmental Management Office must assure that specific requirements and limitations are met. Limitations and restrictions contained in referenced documents are included in this environmental consideration. Storage and disposition of wastes will be in compliance with Resource Conservation and Recovery Act (RCRA) and associated Federal and State regulations. Violation of these laws is subject to severe criminal penalties.

b. Emission Control: Operations should be planned to eliminate or restrict any procedures that would produce residues or emissions hazardous to health or environment. Residues created must be disposed of by safe and environmentally acceptable means.

c. Technical Assistance: Technical assistance with respect to these health and environmental restrictions can be obtained from the Manager, Environmental Management Office, Bldg 49, Pueblo Chemical Depot, 45825 Hwy 96 E, Pueblo CO 81006-9330, 549-4201.

OPERATIONS FORMAT

A. STANDING OPERATING PROCEDURE FOR Emergency Response B. OPERATION NO. 1

C. BAY NO. N/A

D. SOP NO. PU-0000-M-302 DATE: 28 Oct 02

E. REV NO. 5 DATE: _____

F. CHANGE NO. 6 DATE: MAR 4 2014

G. OPERATION: Pre-Operation Procedures for Decon Accident/Incident Response Team

H. EXPLOSIVE LIMITS: UNITS N/A EXPLOSIVE LBS. N/A

I. PERSONNEL LIMITS: OPERATORS As applicable TRANSIENTS: None

J. _____

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
1.	Assemble Decon Team.	1. (O) Personnel assigned to Decon team will report to designated location upon notification of a chemical accident/incident and then report to their team leader. Notification will be by paging, on/off post siren, word of mouth, radio transmission, recall roster, or any other means of communications.
2.	Perform equipment checks.	2. (O)(S) Verify that all required tools and equipment (including containers for contaminated materials) are on hand and serviceable.
3.	Request/receive Single Round Container (SRC).	3. (O)(QC) The Ammunition Surveillance Office will issue the SRC to be used in containerization operations. Verify that the single round container has been visually inspected, maintained, and leak tested within the last 90 days.
<p>NOTE: The container body and container cover represent an as-assembled, as-tested unit. Operators should take precautions to verify that the as-assembled, as-tested configuration is maintained. Both the container flange and flange cover are serial numbered to aid in maintaining the unit.</p>		

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
4.	<p>Verify communication.</p> <p>WARNING: DRIVER FOR THE DECON TEAM WILL MAINTAIN CONTINUOUS VISUAL CONTACT WITH TEAM MEMBERS DRESSED IN LEVEL A. THEY WILL ALSO MAINTAIN RADIO COMMUNICATION WITH THE IC FOR MEDICAL EMERGENCY OR ASSISTANCE AS NEEDED.</p> <p>NOTE: Driver for the M12A1 Decon truck must have a CDL w/HAZMAT Endorsement and valid DOT medical certificate.</p>	<p>4. (O)(Q) Obtain radios to keep in contact with Incident Commander (IC) and truck driver at the accident site.</p>
5.	<p>Protective Clothing and Equipment (PCE).</p> <p>NOTE: Level "A" suits will be worn during all emergency response situations where levels of contamination are unknown. See Appendix A for complete description of protective clothing.</p>	<p>5a. (O) Responder will gather PCE for their appropriate levels of dress from Protective Equipment Branch. See Appendix "A" for complete description. Prior to donning PCE, responders will be medically screened IAW PCD R-385-507.</p> <p>5b. (O) See Operation 11 for donning and doffing procedures for Level A.</p> <p>5c. (O) See Operation 12 for donning and doffing procedures for Level B.</p> <p>5d. (O)(S) Each operator is responsible for drawing and inspecting their protective clothing. Inspect clothing visually for any discoloration or any defects. If discrepancies are found, contact PCE inspector for clothing exchange.</p>
6.	<p>Inspect Self-Contained Breathing Apparatus (SCBA).</p> <p>NOTE: Persons requiring visual correction as determined by Competent Medical Authority (CMA) will have proper inserts. Contact lenses are not permitted during chemical operations.</p> <p>NOTE: Personnel will be required to be clean shaven at the time a mask/breathing apparatus is issued and at the time it is to be worn as to the extent that an adequate seal can be obtained and maintained between the face and the protective mask.</p>	<p>6a. (O)(Q) Operators (Level A or Level B) involved in a chemical accident/incident site operation will be issued a SCBA.</p> <p>6b. (O)(S) It is each operators (users) responsibility to draw SCBA unit and inspect, pre-test breathing apparatus unit and check user seal on the face piece. Other personnel will be issued SCBA units as needed.</p>
7.	<p>Information transfer—off site.</p>	<p>7. (O) Prior to leaving, the Team Captain/Leader will contact the Change House Coordinator and receive updated information (running route, staging area, etc.).</p>
8.	<p>Information transfer—on site.</p>	<p>8. (O) Upon reaching the designated staging area, the Team Leader will notify the IC. The staging area may be moved up to the hotline at the discretion of the IC.</p>

OPER NO: 1 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
9.	Assemble Secondary Decon Team.	<p>9a. (O)(S) Upon request for the transport van, additional M40 masks will be pulled for each team member down range (based upon the daily work plan) and placed in the back of the van. Bottled water will also be transported to allow for re-hydration.</p> <p>9b. (O) Upon return from accident/incident site, secondary Decon team members will report for medical screening. Primary PDS and Decon teams will be given 1st priority in screening. Team members will gather their appropriate level of dress and remain in standby status at their designated location.</p> <p>9c. (O) Secondary Decon Team Leader will report to the Change House Coordinator and receive updated information.</p>

K. SPECIAL REQUIREMENTS:

All personnel using SCBA units will receive documented personal respiratory protection training as mandated by OSHA prior to use.

L. EQUIPMENT, TOOLS, GAUGES, AND SUPPLIES: (See Operation 2, Paragraph L)

OPERATIONS FORMAT

A. STANDING OPERATING PROCEDURE FOR Emergency Response B. OPERATION NO. 2
 C. BAY NO. N/A
 D. SOP NO. PU-0000-M-302 DATE: 28 Oct 02
 E. REV NO. 5 DATE: _____
 F. CHANGE NO. 6 DATE: MAR 4 2014

G. OPERATION: Operation of M12A1 Decon Unit

H. EXPLOSIVE LIMITS: UNITS N/A EXPLOSIVE LBS. N/A

I. PERSONNEL LIMITS: OPERATORS As applicable TRANSIENTS: None

J.

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
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WARNING: IF THE PUMP UNIT ASSEMBLY AND THE WATER HEATER ARE OPERATED IN AN ENCLOSED AREA, THE EXHAUST MUST BE VENTED OUTSIDE TO PREVENT CARBON MONOXIDE POISONING. A CHEMICAL-BIOLOGICAL MASK DOES NOT PROTECT AGAINST CARBON MONOXIDE FUMES. KEEP CLEAR OF THE EXHAUST STACK DURING OPERATION OF THE WATER HEATER.

1. Pre-Op Checks—M12A1 unit.

WARNING: HEARING PROTECTION WILL BE WORN BY M12A1 DRIVER/PASSENGER. SAFETY GLASSES WILL BE WORN DURING START UP PROCEDURE.

- 1a. (O) Perform the “before” Preventative Maintenance Checks and Services (PMCS) procedures in TM 3-4230-237-10.
- 1b. (O) Complete an equipment inspection and maintenance worksheet. (See Appendix E).
- 1c. (O) Use only JP-8 or Diesel Fuel. Using the wrong fuel could damage the equipment.
- 1d. (O) Fill the fuel tank to approximately one inch below the filler neck.

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
1.	Pre-Op Checks—M12A1 unit. (con't)	1e. (O) Before replacing the fuel cap, make sure that the vent in the cap is in the open position.
	<p>WARNING: WEAR EYE PROTECTION EQUIPMENT WHEN FUELING. NO SMOKING, OPEN FLAME, SPARKS OR HEATED OBJECTS ARE ALLOWED IN THE AREA WHEN FILLING THE FUEL TANK WITH DIESEL. SIPHONING FUEL FROM VEHICLES IS PROHIBITED. SIPHONING CAN CAUSE STATIC ELECTRICITY, EXPLOSION, MOUTH AND THROAT DAMAGE.</p>	1f. (O) Replace the fuel cap and secure.
		1g. (O) Open the storage compartment on the heater and the rear panel of the pump assembly, leave open during operations.
	<p>NOTE: Water hoses and fuel lines will not be disconnected after use.</p>	1h. (O) Ensure tank is filled with 350 gallons of water.
	<p>WARNING: TO AVOID INJURY OR ELECTRICAL SHOCK, KEEP THE HEATER RECEPTACLE AND SWITCH ON THE PUMP UNIT CONTROL PANEL TO OFF WHEN THE WATER HEATER IS NOT IN USE.</p>	
2.	Pre-Op Checks—Pump Unit.	2a. (O) Check oil level. Add if needed. Do not overfill.
		2b. (O) Check to ensure that valves 1, 2 and 3 are open. Check to ensure valve 4 to prime tank is closed.
		2c. (O) Refer to starting procedure instruction plate.
3.	Start-up—Engine.	3a. (O) Check that low oil pressure light comes on.
		3b. (O) Check that voltmeter needle is in the yellow to green range.
		3c. (O) Check that heater receptacle and switch is off.
		3d. (O) If the temperature is 40°F (4.44°C) or lower, hold the engine pre-heat switch for 30-45 seconds.
		3e. (O) Turn the ignition switch to the start position. Release when the engine starts.

NOTE: Do not allow the engine to crank for more than 10 seconds without letting the starter cool down.

OPER NO: 2 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
3.	Start-up—Engine. (con't) NOTE: Check to see that the low oil pressure light goes out when engine starts. If not, shutdown immediately. NOTE: If pressure gauge does not show pressure, stop the engine and check hose connections and valve settings.	3f. (O) If the temperature is below 40°F, operate the engine pre-heat switch for an additional one minute or until the engine begins running smoothly. 3g. (O) After starting water pump, check gauges. Water pressure gauges should be in the green.
<p>WARNING: WHEN IT IS NECESSARY TO DISCONNECT THE HOSES WITH THE WATER TEMPERATURE ABOVE 100 DEGREES F (38 DEGREES C); EXERCISE EXTREME CARE TO PREVENT SCALDING. USE PROTECTIVE EYEWEAR, FACE SHIELD, AND GLOVES.</p>		
4.	Start-up—Water Heater. NOTE: Circulate only clean water through the water heater. NOTE: Heater uses JP-8 or Diesel Fuel only. NOTE: To prevent damage to the water heater, be sure that water is flowing through heater unit prior to turning on the heater controls. NOTE: An operator must be in attendance at all times during operation of the water heater.	4a. (O) Make sure that both the heater switch and thermostat on the water heater are in the Off position. Make sure that the heater receptacle and switch on the pump unit is in the Off position. 4b. (O) With the pump running, place the heater receptacle and switch to the On position. 4c. (O) Turn heater switch to Heater On position and run for at least two minutes before turning the thermostat to the selected temperature setting.
<p>WARNING: IF THE WATER HEATER DOES NOT IGNITE IN TEN (10) SECONDS, TURN THE HEATER THERMOSTAT TO THE OFF POSITION. DO NOT ATTEMPT TO START THE WATER HEATER. REMOVE ELECTRICAL POWER BY PLACING THE HEATER RECEPTACLE AND SWITCH ON THE PUMP UNIT TO OFF.</p>		

OPER NO: 2 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
4.	Start-up—Water Heater. (con't)	4d. (O) Set thermostat to 180 degrees.
	CAUTION: Do not allow the temperature of water in the boiler to exceed 200°F (+/- 12°F). If it does, the heater will automatically shut off.	
5.	Shut off heater.	5. (O) Rotate thermostat to zero, turn off heater and turn off power to heater on pump unit.
6.	Disconnect water heater from water circulation.	6. (O) Refer to Appendix C for heating, blending and agitation steps and diagrams.
	WARNING: WHEN IT IS NECESSARY TO DISCONNECT THE HOSES WITH THE WATER TEMPERATURE ABOVE 100°F (38°C) EXERCISE EXTREME CARE TO PREVENT SCALDING. USE PROTECTIVE EYEWEAR, FACE SHIELD, AND GLOVES.	
7.	Preparing HTH solution.	7a. (O) Pour 175 lbs (7 each, 25 lbs containers) of HTH into the Blender-Hopper and combine with 350 gallons of water already in tank. Break up lumps of caked HTH to prevent clogging of the lines and to verify the best possible water-powder mixture. Do not over fill the hopper.
	NOTE: The heater is bypassed and the M12A1 decontamination unit is ready to charge with HTH.	
	WARNING: WHEN PREPARING HTH SOLUTION, A MINIMUM OF LEVEL C1 PCE WILL BE WORN.	7b. (O) Let HTH mixture blend for 15 minutes.
	NOTE: HTH is a strong oxidizer—prevent contact with combustible/flammable materials. HTH solution should never be prepared more than four hours before use.	
		7c. (O) After blending is complete, shut down the pump unit by turning the ignition switch to Stop.
		7d. (O) Remove hose from blender and reconnect to agitator on water tank.
		7e. (O) Restart pump unit engine by following Step Number 3 of this operation.
		7f. (O) Agitate the solution for at least 15 minutes before spraying.
	NOTE: HTH/slurry solution should be agitated until used.	7g. (O) Solution is now ready for dispensing. Once at decontamination point determined by IC, driver should ensure that valves are open for bumper and nozzle so as to spray into site with decontaminant solution.

OPER NO: 2 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
8.	Shut-down—Pump Unit.	<p>8a. (O) Turn Ignition Switch to the "OFF" position.</p> <p>8b. (O) Make sure valves 1, 2, 3, and 4 on the control panel are in the "Closed" position.</p>
9.	Shut-down and cleanup—M12A1 unit.	<p>9a. (O) Obtain a 55-gallon poly hazardous waste drum from Bldg 575 and a 5-gallon bucket.</p> <p>9b. (O) Drain HTH solution from both discharge hoses. Open the pump drain valve to drain bleach from the piping and pump.</p> <p>9c. (O) Drain the water tank of HTH solution.</p>
	<p>NOTE: All decontaminating solutions will be drained and put in to a 55-gallon poly drum. All waste will be analyzed IAW SOP PU-0000-W-465 and handled according to environmental considerations.</p> <p>CAUTION: Clean the M12A1 decontaminating apparatus within 24 hours. Otherwise, the solution will harden, making cleaning more difficult and may damage the apparatus.</p> <p>NOTE: All decontaminating solutions will be drained and put in to a 55-gallon poly drum. All waste will be analyzed IAW SOP PU-0000-W-465 and handled according to environmental considerations.</p> <p>NOTE: Refer to TM- 3-4230-237-10, Page 001500-1, for additional cleaning procedures after a spraying mission of the decontamination apparatus, power driven, skid-mounted M12A1 unit.</p>	<p>9d. (O) Add water to the blender-hopper and pump with the discharge hose in both the blend position and agitate position.</p> <p>9c. (O) Conduct "after" PMCS in accordance with WP 0018 001 thru 0018 00-10.</p>

K. SPECIAL REQUIREMENTS:

1. The Decon Team Captain/Leader will ensure that hands-on training to all personnel assigned to perform and operate emergency equipment prior to performance of duties. All training will be recorded on PCD Form 350-10 and forwarded to the Training Coordinator. Decon Team Captain/Leader will also ensure that each member of the Decon team reads and understands this SOP and has signed the Operators Statement as required by this SOP. Team Captain/Leader are required to retain the signed statements.

2. Decon Team Leader will inventory the M12A1 for supplies and equipment after each use and provide Change House Lead an itemized list of required supplies.

OPER NO: 2 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE _____

L. TOOLS AND TEST EQUIPMENT REQUIREMENTS:

<u>ITEM</u>	<u>QTY REQD</u>	<u>SPEC NO./DWG NO.</u>	<u>MCSN/NSN</u>
Brushes	As Required		Locally Procured
Sponges	As Required		Locally Procured
Paper towels	As Required		7920-00-823-9773
Clear plastic bags	As Required		Locally Procured
M8 detector paper	As Required		6665-00-050-8529
Portable radios	As Required		Locally Procured
Sodium Hypochlorite (commercial bleach nominal 5%)	As Required		Locally Procured
Escape bottle	As Required		
Fire extinguisher	2 each		Locally Procured
HTH (25 lb containers)	As Required		Locally Procured
5-gallon bucket	1 each		Locally Procured
Leather or leather palmed gloves	As Required		Locally Procured
Tape, OD green, packaging	As Required		7510-00-074-5100
Knife	1 each		Locally Procured
Pliers	1 each		Locally Procured
Band cutters	As Required		Locally Procured
Mallet	1 each		Locally Procured
Hammer	1 each		Locally Procured
Ammo can	2 each		
Scissors	1 each		Locally Procured
Garden weed spray tank	1 each		Locally Procured
Clear plastic Sheet	As Required		Locally Procured
Chemical Protective Clothing	As Required		Various
Shovel	1 each		Locally Procured
Pallets/dunnage	As Required		Various
SCBA Inter Spiro 9030 (60 minute air bottle)	As Required		Locally Procured
Protective Mask (M40A1)	As Required		
SRC	As Required		8140-00-369-9120
Ear plugs	As Required		
Safety Glasses	As Required		
Containment spill kit	As Required		
Level C1 Ensemble	As Required		
M12A1 Equipment Inspection and Maintenance Worksheet	1 each		

OPERATIONS FORMAT

A. STANDING OPERATING PROCEDURE FOR **Emergency Response** B. OPERATION NO. 3

C. BAY NO. Igloo Storage Site

D. SOP NO. PU-0000-M-302 DATE: 28 Oct 02

E. REV NO. 5 DATE: _____

F. CHANGE NO. 6 DATE: MAR 4 2014

G. OPERATION: **Emergency Response**

H. EXPLOSIVE LIMITS: UNITS N/A EXPLOSIVE LBS. N/A

I. PERSONNEL LIMITS: OPERATORS N/A TRANSIENTS: N/A

J.

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
1.	<p>Medical Monitoring of personnel--Level A, B, C1, C2, or D1.</p> <p>NOTE: EOD team members will be medically monitored IAW PCD R 385-507, prior to entry into accident/incident site.</p>	<p>1a. (O)(S) Before donning levels of dress each responder will be medically monitored IAW PCD R-385-507.</p> <p>1b. (O)(S) Each responder will have an M40 mask unless Level A or B is worn. In such instances, Level A & B responders will have a M40 mask available as backup.</p>
2.	<p>Accident/incident site entry.</p> <p>NOTE: In the event an explosion has occurred, enter only after EOD has assessed the accident site and deemed it safe for the emergency response team to enter the area.</p>	<p>2a. (O)(S) Prior to entry into the accident/incident site, the IC will update the Decon Team Captain of any new information at the site.</p>

OPER NO: 3 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
2.	Accident/incident site entry. (con't)	2b. (O)(S) Prior to entry into the accident site the Decon Team Captain will inform the IC and MPDS Team Captain of his plan of action.
	CAUTION: Use extreme caution when climbing into and out of the M12A1, use detachable/retractable (dependent on which M12A1 is utilized) stairs at all times. Use hand rail. If M12A1 is equipped with a "Troop Strap" driver shall ensure that the "Troop Strap" is in place, and that the Decon team members are properly braced (three points of contact) for the movement of the M12A1. Stay on improved road if possible. If driving off road, use caution.	2c. (O) If the accident/incident site involved an explosion, the M12A1 will spray decontaminating solution into and around the accident/incident site.
3.	Leaking/damaged round(s) handling.	3a. (O) The Decon Team Leader and an assistant will visually identify the number of leaking round(s).
	WARNING: DRIVER FOR THE DECON TEAM WILL MAINTAIN CONTINUOUS VISUAL CONTACT WITH TEAM MEMBERS DRESSED IN LEVEL A. THEY WILL ALSO MAINTAIN RADIO COMMUNICATION WITH THE IC FOR MEDICAL EMERGENCY OR ASSISTANCE AS REQUIRED.	
	NOTE: If the leaking rounds are not found by visual means, individually bag all rounds with clear plastic for monitoring.	
		3b. (O) Containerize leaking munitions in accordance with SOP PU-0000-M-486.
		3c. (O)(S)(QC) Containerized leaking munitions will be decontaminated, transported, and stored in accordance with SOP PU-0000-M-486.
4.	Area decontamination.	4a. (O) Place spill pillows/pad around contaminated area to be sprayed, to minimize runoff.
		4b. (O) The area and items within the area of contamination will be sprayed with decontamination solution.
		4c. (O) Cover with plastic to contain any vapor hazard. Anchor the sides of the plastic with available material, (i.e., dirt, rocks, etc.)

OPER NO: 3 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE _____

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
5.	Personnel decontamination. NOTE: If driver for the Decon Team does not get out of the transport vehicle, driver is not required to decontaminate boots and gloves prior to returning to the hot line.	5a. (O) Prior to returning to the hot line, Decon team members will at a minimum decontaminate boots and gloves. 5b. (O)(S) Return to the hot line and process through the MPDS station in accordance with Operations 7, 8 or 9, as appropriate. 5c. (O)(S) Report to IC or change house for Post Medical Monitoring.
6.	Decon Team Captain/Leader report to IC.	6. (O) Decon Team Captain/Leader will report to IC and update him on the work completed at the accident/incident site.
K.	SPECIAL REQUIREMENTS: Operators will wear safety shoes before donning SCBA.	
L.	EQUIPMENT, TOOLS, GAUGES, AND SUPPLIES: (See Operation 2, Paragraph L)	

OPERATIONS FORMAT

A. STANDING OPERATING PROCEDURE FOR B. OPERATION NO. 4

Emergency Response C. BAY NO. N/A

D. SOP NO. PU-0000-M-302 DATE: 28 Oct 02

E. REV NO. 5 DATE: MAH 4 2014

F. CHANGE NO. 6 DATE: _____

G. OPERATION: PDS Team Assembly and Plan Execution

H. EXPLOSIVE LIMITS: UNITS N/A EXPLOSIVE LBS. N/A

I. PERSONNEL LIMITS: OPERATORS N/A TRANSIENTS: N/A

J.

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
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|----|--------------------|--|
| 1. | MPDS Team Assembly | 1a. (O) Personnel assigned to MPDS team will report to Building 593 or other designated location upon notification of a chemical accident/incident and then report to their team leader. Notification will be by paging, on/off post siren, word of mouth, radio transmission, recall roster, or any other means of communications.

1b. (O) The MPDS team will require a minimum of 3 personnel to operate on the hot side and 3 personnel to operate on the cold side for set up the MPDS plus a Team Leader (total 7 personnel). If there is a shortage of personnel, Change House Coordinator will contact the Operations Center (OC) and request additional trained help. |
| 2. | Equipment Check. | 2a. (O)(S) Verify that all required tools and equipment are on hand and serviceable.

2b. (O) Team Leader will verify that all necessary equipment is located inside the MPDS trailer (e.g. bleach, bags, plastic).

2c. (O) Fill the shower tank for station A as indicated below:
1. For known or suspect agent exposure, charge tank with household bleach before departing to the accident site.
2. Fill the second tank with plain water in station B. |

WARNING: PERSONNEL WILL WEAR EYE, FACE, AND HAND PROTECTION (BUTYL GLOVES M3/M4) WHEN TRANSFERRING BLEACH INTO THE MPDS HOLDING TANK.

OPER NO: 4 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
3.	Issue Protective Clothing and Equipment (PCE) CAUTION: Ensure Polar Heart Rate monitors are utilized IAW PCD R-385-507 prior to donning PCE.	<p>3a. (O) MPDS team members and leaders will gather their personnel PCE. Responders will change from street clothes into their appropriate level of dress at Bldg 593. See appendix "A" for complete description.</p> <p>3b. (O) Before donning levels of dress each responder will be medically screened IAW PCD R-385-507.</p>
4.	Receive Information.	<p>4a. (O) Team Captain/Team Leader will receive information from the Change House Coordinator and in turn will brief team members about the ongoing situation. Briefing may include but is not limited to the following:</p> <ol style="list-style-type: none"> 1. Hot Line location 2. Accident location 3. Type of agent release (fire/explosion) 4. Any outside forces involved (terrorists, protestors, etc.) 5. Type of munitions 6. Number munitions leaking/exploded 7. Number of personnel injured/ incapacitated <p>4b. (O) Change House Coordinator/Team Captain or assigned Team Leader will coordinate with the IC and OC and determine if the Hot Line location is clear. In the event that terrorists may be involved, determine if it is safe to move to the designated Hot Line by contacting the above personnel.</p>

K. SPECIAL REQUIREMENTS:

1. The Chemical Materials Agency NBC filter team will conduct annual maintenance and/or replacement of the HEPA filter and carbon filter (testing, bag in bag out). Maintenance will be arranged by Chemical Operations personnel.
2. The MPDS Team Captain /Leader will ensure that hands-on training to all personnel assigned to perform and operate emergency equipment prior to performance of duties. All training will be recorded on PCD Form 350-10 and forwarded to the Training Coordinator. MPDS Team Captain/Leader will also ensure that each member of the MPDS team reads and understands this SOP and has signed the Operators Statement as required by this SOP. Team Captain/Leader are required to retain the signed statements.

L. EQUIPMENT, TOOLS, GAUGES, AND SUPPLIES:

<u>ITEM</u>	<u>QTY REQ'D</u>	<u>SPEC NO./DWG NO.</u>	<u>MCSN/NSN</u>
Water containers/coolers	As required		
Ice Vests	As required		
Apron, TAP, M2	As required		
Mask, M40 series	As required		
Hood, M40 Quickdoff	As required		
Boots, M2A1 Butyl w/safety toe	As required		
Gloves, Butyl M3/M4	As required		
Cotton coveralls	As required		
Cotton undergarments	As required		

OPER NO: 4 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

L. EQUIPMENT, TOOLS, GAUGES, AND SUPPLIES:

<u>ITEM</u>	<u>QTY REQ'D</u>	<u>SPEC NO./DWG NO.</u>	<u>MCSN/NSN</u>
Cotton socks	As required		
Polar Heart Monitor	As required		
Sodium Hypochlorite (commercial bleach nominal 5%)	As required		
55 Gallon drums	As required		
30 Gallon plastic bags with ties	As required		
Safety Glasses	As required		
Goggles, Splash-proof	As required		

OPERATIONS FORMAT

A. STANDING OPERATING PROCEDURE FOR **Emergency Response** B. OPERATION NO. 5
 C. BAY NO. N/A
 D. SOP NO. PU-0000-M-302 DATE: 28 Oct 02
 E. REV NO. 5 DATE: _____
 F. CHANGE NO. 6 DATE: MAR 4 2014

G. OPERATION: Positioning Mobile Personnel Decontamination Station (MPDS)

H. EXPLOSIVE LIMITS: UNITS N/A EXPLOSIVE LBS. N/A
 I. PERSONNEL LIMITS: OPERATORS N/A TRANSIENTS: N/A
 J.

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
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1. MPDS placement.

NOTE: Perform pre-operational checks prior to MPDS trailer leaving its storage location.

NOTE: MPDS crew should be kept in a staging area outside of G-block until a hot line has been established by the IC and the cold side is confirmed to be clean.

WARNING: A GROUND GUIDE WILL BE USED DURING THE POSITIONING OF MPDS AT THE CAI SITE TO FACILITATE THE SAFE MOVEMENT AND STAGE OF THE VEHICLE AND/OR TRAILER.

- 1a. (O) Incident Commander (IC) will coordinate with various depot elements and assume overall responsibility for all actions at the accident/incident site and the hotline to control, confine and neutralize contamination, evacuate injured, provide security and direct and deploy emergency response teams until properly relieved by Installation Commander or Service Response Force (SRF) Commander.
- 1b. (O) IC will coordinate with the Operations Center (OC) in determining the location of the Hot Line and MPDS.
- 1c. (O) Assigned personnel will deploy the MPDS to the pre-determined location by an upwind route designated by the OC and/or IC.
- 1d. (O)(QC) The MPDS will be positioned on the cold side of the Hot Line established by the Fire Department. After the MPDS is setup, and the first person crosses the original Hot Line to be processed, the Hot Line will be moved to the line indicated by the markings on the exterior of the MPDS trailer (Contamination Control Line).
- 1e. (O) (QC) At the direction of the IC, the MPDS will be positioned not closer than 450 meters from the accident site if the possibility of an explosion exists. If an explosion is ruled out, positioning will be no less than 50 meters (55 yards) based on the risks and hazards inherent to the specific situation.

OPER NO: 5 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
1.	MPDS placement. (con't)	<p>1f. (O)(S) Park MPDS on as level ground as possible. Depending on the ground conditions, guidance from IC, and the current situation, the MPDS may remain attached to the tractor or it may be detached.</p> <p>1g. (O)(S)(QC) If the MPDS is to be detached from the tractor, verify all connections are unhooked, the landing gear is lowered, and chock blocks are employed. If the MPDS remains attached to the tractor, verify the parking brake is set and the chock blocks are utilized.</p> <p>NOTE: All doorways will be facing onto the street and /or pavement.</p> <p>1h. (O) Upon completion of set-up of MPDS, the designated driver will physically report to the MPDS Team Captain/Team Leader for further instructions.</p> <p>1i. (O)(QC)(S) Prior to processing personnel through the MPDS, verify Real Time Analytical Platform (RTAP) is present/ operational and connected to Station C monitoring port.</p> <p>1j. (O)(S) Level C1 protective clothing must be donned by personnel working on the "hot" side of the MPDS prior to processing personnel through.</p> <p>1k. (O)(S) Personnel manning stations A and C or working outside in the Hot Line area will wear Level C1.</p>
2.	Initial Contamination Reduction Area (CRA) set-up.	<p>2a. (O)(S) Initial CRA can start processing casualties prior to completion of MPDS set up.</p> <p>WARNING: PERSONNEL WHO STAGE, MOVE OR POUR BLEACH INTO MPDS HOLDING TANK WILL USE EYE, FACE, AND HAND PROTECTION (GLOVES, BUTYL, M3/M4).</p> <p>2b. (O)(QC) Position two plastic drums lined with plastic bags on the hot side of CRA. Place all the equipment used at the CAI site (tools, gauges, expendable supplies) in one of the drums. This equipment will be monitored and/or decontaminated at a later time. An individual or team going to or returning from the accident site may use this equipment without the need for prior decontamination. Weapons and other high security category items can be temporarily stored in the second drum.</p> <p>2c. (O)(S) Set up a containment pool, which will enclose two-step pans. A typical set up would be plastic sheeting, with spill pillows/pads surrounding the step pans. Place step pans right next to each other to assist processing personnel when stepping from one to the other. Fill first step pan with household bleach and the other one with water. Place benches on the hot side.</p>

OPER NO: 5 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
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K. SPECIAL REQUIREMENTS:

1. Personnel manning the MPDS will be trained in all duties of the MPDS operations. All training will be recorded on PCD Form 350-10 and forwarded to the Training Coordinator.
2. A ground guide will be used during the attachment of the MPDS to the towing vehicle as well as positioning MPDS at the CAI site. The MPDS will be hitched to the towing vehicle only by authorized CDL operators trained in the MPDS hitching/loading procedures.
3. Supplies and equipment will be on hand or readily available to handle any unlikely situation. PDS Team Leader will inventory supplies and equipment after each use and provide Change House Lead an itemized list of required supplies.
4. The MPDS personnel will inspect persons entering the contaminated area for proper protective clothing.
5. The "undress" area (Station C) of the MPDS will be monitored to the action level IAW SOP PU-0000-R-491. Ambient air monitoring will be conducted outside the MPDS throughout operation. Personnel working on the "hot" side of the Hot Line will not cross the "hot" line without processing through the MPDS.
6. IC, or designee, will control all traffic and personnel crossing the Hot Line. MPDS Team Captain will verify that all personnel and equipment have been properly decontaminated. Equipment will be bagged and monitored at a later time.
7. Personnel will request permission to pass the Hot Line or beyond through the IC.
8. Personnel requiring first-aid will be decontaminated, have protective clothing removed in the most expeditious manner, be monitored to assure effective decontamination and then be released to the medics at the Hot Line. At any time during the decontamination procedure, medical or supervisory personnel may decide to transport the contaminated worker to the health clinic or begin life saving medical care.
9. Any additional equipment and supplies that are not part of the original MPDS supply list can be expedited by the Change House Coordinator to the Hot Line at request of IC or MPDS Team Captain.

L. EQUIPMENT, TOOLS, GAUGES, AND SUPPLIES:

<u>ITEM</u>	<u>QTY REQ'D</u>	<u>SPEC NO./DWG NO.</u>	<u>MCSN/NSN</u>
Protective Clothing Equipment, as required (Level C1,C2,C3,D1,D2)	1 per operator		
Polar Heart Monitor(s)	As needed		
Decontaminant(s)	As needed		
Plastic bags	As needed		
Duct tape	As needed		
Step pans	2 Each		
Blankets	As needed		
Towels	As needed		
Undergarments, cotton	As needed		
Coveralls, cotton	As needed		
Socks, cotton	As needed		
Scissors	As needed		
55 gallon drums	As needed		
Plastic sheeting	As needed		
Brushes	As needed		
Sponges	As needed		
Absorption pads/pillows	As needed		
Bench	2 Each		
Spill Kit (absorbent pillows, pads, etc.)	As needed		

OPER NO: 5 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

L. EQUIPMENT, TOOLS, GAUGES, AND SUPPLIES:

<u>ITEM</u>	<u>QTY REQ'D</u>	<u>SPEC NO./DWG NO.</u>	<u>MCSN/NSN</u>
M40A1 Protective Masks	As needed		
Clear plastic bags (large & xlarge)	As needed		

OPERATIONS FORMAT

A. STANDING OPERATING PROCEDURE FOR Emergency Response B. OPERATION NO. 6

C. BAY NO. N/A

D. SOP NO. PU-0000-M-302 DATE: 28 Oct 02

E. REV NO. 5 DATE: _____

F. CHANGE NO. 6 DATE: MAR 4 2014

G. OPERATION: Operational Start-Up of MPDS

H. EXPLOSIVE LIMITS: UNITS N/A EXPLOSIVE LBS. N/A

I. PERSONNEL LIMITS: OPERATORS N/A TRANSIENTS: N/A

J.

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
1.	Stage MPDS Trailer. WARNING: REVIEW ALL HAZARDS ASSOCIATED WITH THIS OPERATION IN THE HAZARD ANALYSIS SECTION (APPENDIX H) PRIOR TO START-UP OF MPDS.	1. (O)(S) Assure vehicle is on level ground. Lower landing gear to take tension off trailer body.
2.	Access door removal/chute installation.	2a. (O) Obtain drop chutes from storage racks on each side of the trailer. 2b. (O) Slide drop chutes into place at each discharge port. Attach chute extensions. Position collection drums at the base of drop chutes and near back door of MPDS to be used as equipment drop. Line drums with plastic bags.
3.	Platform steps installation. WARNING: HEAVY LIFTING – USE SAFE LIFTING TECHNIQUES.	3a. (O)(S) Carefully release tension from the ratchet straps on ventilation system frame located at the rear of the trailer. 3b. (O)(S) Carefully remove the four step handrails and one long platform handrail. 3c. (O)(S) Position one person at the front and rear pivot points of the front platform.
3.	Platform steps installation. (con't)	3d. (O)(S) While supporting the front and rear of the platform, remove the quick release pins that hold the platform in the stored position and slowly lower the platform. The lanyards will hold the platform in a horizontal position.

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
		<p>3e. (O) Remove the quick release pin from the support leg and rotate the leg to the vertical position. Insert the pin to secure the leg in the vertical position.</p> <p>3f. (O)(S) Unscrew the threaded portion of the leg using the adjustment handle until the leg pad securely contacts the ground. Tighten the jam nut to prevent the leg from moving.</p> <p>3g. (O)(S) Repeat steps 3c-3f for set-up of the rear platform.</p> <p>3h. (O)(S) Install the four step handrails into the rail pockets in the steps.</p> <p>3i. (O)(S) Install the four platform handrails into the rail pockets in the platforms.</p> <p>3j. (O)(S) Tighten the thumb screws to secure the hand rails to the platform and steps.</p> <p>3k. (O) Place the ratchet straps in the utility room.</p> <p>3l. (O) Remove grounding rod and cable from the trailer and drive the grounding rod into the ground.</p> <p>3m. (O)(S) Extend the windsock to establish and maintain wind direction.</p> <p>3n. (O)(S) Using a speed wrench extension stored in the back of the trailer, release the awning, and then unfold the metal supports to stabilize the awning assembly. Position benches (stored inside Compartment 1) under the awning.</p> <p>3o. (O)(QC) Position Hot Line signs at the back area of the MPDS trailer.</p>
4.	<p>Generator Start-Up.</p> <p>NOTE: Personnel will wear hearing protection when starting the generator or while in the room with generator running.</p> <p>NOTE: Only qualified personnel will operate the generator, filters and HVAC system.</p>	<p>4a. (O) Turn power switch located on the electrical panel located in the utility room from "shore" to "generator" position.</p> <p>4b. (O) Start the generator by setting the toggle switch in "START" position; push "START" button. Leave toggle switch in "START" position until low oil pressure light is extinguished. Verify that the toggle switch has returned to "RUN" position (switch should return to "RUN" position by itself). If it does not, move the switch manually.</p> <p>4c. (O) Turn on the interior lights (switch is located on the control panel in the supply room).</p>

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STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
4.	Generator Start-Up. (cont'd)	4d. (O) Observe gauges at top of panel; generator output should show AC volts at 220/240 and Hertz at 60.
	NOTE: Elapsed time meter should rotate – check first digit on right.	4e. (O) Observe gauges on right side of panel (engine gauges), bottom to top. Amperes should read at a position, which indicates a plus (+) from midpoint. Oil pressure near midpoint depending on the load. Temperature should begin to climb to approximately 100°F.
	NOTE: Low fresh water and low decontamination solution indicator lights will illuminate if levels are too low.	4f. (O)(S) Turn on exterior lights to verify operation – turn off if operating in daytime.
	NOTE: If operating in a winter climate, make sure the “Tank Heater” switch is turned on and indicator light is illuminating.	
5.	Pre-Op Check—showers	5a. (O) Turn on “AUTO SHOWER OVERRIDE” switch and observe the indicator light (indicator illuminates only when auto shower is operating). This should bleed air out of the lines – verify that all showers are free of air and turn off water.
	NOTE: Water and decontaminate tank should be full prior to MPDS deployment.	5b. (O)(S) Check water level and decontaminate level indicator lights.
		5c. (O)(S) Position valve in dermal shower (Station F) at a temperature to the left of midpoint or warm.
6.	Pilot Light—manual lighting.	6a. (O) Open propane ¼ turn. Light pilot light by depressing larger knob and moving to pilot position.
	CAUTION: Refer to manufacturer’s instructions before attempting to light burners.	6b. (O) Small blue flame should be observed through sight glass. Hold pilot knob in pilot position for a few seconds to heat the thermocouple, and then move knob to “ON” position. Flame should remain lit. If flame is not present, try again. After three consecutive unsuccessful tries, check propane tank fill level and gas supply to the heater(s).
	WARNING: IF PROPANE GAS IS DETECTED BY SMELL, LEAVE TRAILER IMMEDIATELY, LEAVE DOOR OPEN AND CALL THE FIRE DEPARTMENT TO SEE IF THERE IS AN EXPLOSIVE ATMOSPHERE PRESENT. EVACUATE ALL PERSONNEL UP WIND APPROXIMATELY 100 METERS.	6c. (O)(QC) Observe sight window to verify ignition is achieved.
		6d. (O) Turn on warm water faucet in dermal shower (Station F).
	WARNING: HOT WATER CAN CAUSE SCALDING AND SEVERE BURNS.	6e. (O) After a few seconds, warm water should be present at showerhead. Test water with hand carefully. When checking MPDS hot water system, use extreme caution. Turn on faucet, let run for a minute. Place hand on metal outlet in determining that the water is hot.
		6f. (O)(S) If warm water is present, shut off water.

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STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
7.	Emergency power switch.	7a. (O)(S)(QC) Turn emergency power switch in clothing supply room to "ON" position. 7b. (O)(S)(QC) Press test button and observe emergency egress lighting (leave toggle switch in "ON" position").
8.	Carbon monoxide (CO) monitor.	8. (O)(S) Obtain the CO monitor from the Chemical Operations Maintenance Shop. Place the CO monitor in the control room. Push the "TEST/RETEST" button and verify that it is working.
9.	Decontamination wash pump.	9a. (O) Activate decontamination wash pump switch (S/W) in control room. 9b. (O) Activate decontamination switch in decontamination room to verify that solution is pumped to brush head.
10.	Activate auto shower and time the on/off cycle	10. (O) Present setting is thirty seconds, and adjustments can be made by resetting the timer. Timer will indicate seconds of operation. Temperature is preset and cannot be manipulated.
11.	MPDS thermostat controls. NOTE: Thermostat, located in control room, controls the MPDS HVAC system.	11. (O) Select "HEAT" or "COOL" with the fan in the "FAN" position. The HVAC fan must be on for the filter unit to work properly. A time delay will be noted when switching from one mode to another.
12.	Filter unit operation.	12a. (O) Use the supplied ladder to gain access to the ventilation system exhaust port weather cap. Unlatch the weather cap by loosening the hand nut and moving the latch mechanism to the side. The weather cap should move up and down freely. 12b. (O) Verify that the filter unit ventilation exhaust fan cutoff switch (mounted on the filter housing at the rear of MPDS) is in the OFF position. 12c. (O) Verify that the air control damper (located in the fan exhaust) is in the full open position. 12d. (O) Turn the FILTER UNIT EXHAUST FAN switch (located in the control room) to the ON position. A red light located on the switch will illuminate. 12e. (O) Place the filter unit ventilation system filter fan switch (mounted on the filter housing at the rear of MPDS) to the ON position – the exhaust fan unit will start. The air dampers located in rooms A and C will automatically open.

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STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
12.	Filter unit operation. (cont'd)	12f. (O) Check the stack velocity/velocity pressure gauge mounted on the right side of the filter unit housing and verify it reads between 2000 – 2100 feet per minute. If needed, adjust the reading using the air control valve mounted on the exhaust stack of the filter housing.
	NOTE: For operating instruction refer to "Operations and Maintenance Manual".	12g. (O) Verify that the upper round damper (between room A and B) is open.
13.	MPDS operational status notification.	13. (O) Team Captain/Leader will report to the IC when the MPDS trailer is ready for operation.

K. SPECIAL REQUIREMENTS: None

L. EQUIPMENT, TOOLS, GAUGES, AND SUPPLIES:

<u>ITEM</u>	<u>QTY REQ'D</u>	<u>SPEC NO./DWG NO.</u>	<u>MCSN/NSN</u>
Screwdriver, common	As Required	Locally Procured	N/A
Screwdriver, phillips	As Required	Locally Procured	N/A
Hearing protection	As Required		

OPERATIONS FORMAT

A. STANDING OPERATING PROCEDURE FOR B. OPERATION NO. 7

Emergency Response C. BAY NO. N/A

D. SOP NO. PU-0000-M-302 DATE: 28 Oct 02

E. REV NO. 5 DATE: _____

F. CHANGE NO. 6 DATE: MAR 4 2014

G. OPERATION: Processing of Personnel in Level B

H. EXPLOSIVE LIMITS: UNITS N/A EXPLOSIVE LBS. N/A

I. PERSONNEL LIMITS: OPERATORS N/A TRANSIENTS: N/A

J.

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
1.	Receive chemical accident/incident site (down range) personnel.	1a. (O) Personnel arriving from down range will report to the Hot Line. 1b. (O) Hot Line operators will instruct personnel reporting for processing on how to proceed through the Contamination Control Line (CCL). 1c. (O)(S) First priority will be to check the gauge on the SCBA regulator. A spare air bottle will be connected at the CCL. The emergency response personnel with the least amount of air should be connected first. 1d. Prior to personnel entering MPDS, the pressure gauge on their spare bottle will be checked to ensure there is greater than 2500 psig remaining in their tank. If tank is showing less than 2500 psig replace spare bottle with a new one prior to entry into MPDS.
2.	Equipment crop/boot wash. (2 attendants in Level C1)	2a. (O) Drop all equipment (tools, flashlights, radios, etc.) into barrels as directed by attendants. 2b. (O) Security force weapon(s), ammunition, and any other sensitive items, as well as equipment used by terrorists/intruders, will be placed in the designated (blue) weapons barrel, remain in the control of security forces and will not be processed through the Hot Line.

WARNING: ANYTIME A PERSON EXHIBITS SYMPTOMS OF HEAT-RELATED ILLNESSES, THEIR PCE WILL BE IMMEDIATELY REMOVED AND THEY WILL BE PROCESSED AND TRANSFERRED EXPEDIENTLY TO THE CLINIC FOR TREATMENT.

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STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
2.	Equipment drop/boot wash. (cont'd) (2 attendants in Level C1)	2c. (O)(S) Contaminated emergency response personnel will step into the first pan containing bleach where attendant(s) will wash soil and possible contamination from boots and gloves using brushes and/or sponges.
	NOTE: If directed by IC/Team Captain/Leader, CCL attendants may perform clothing decontamination in boot wash station.	2d. (O)(S) When directed by the attendant(s), contaminated emergency response personnel will slowly raise one foot, wait for the attendant to scrub the sole of the boot and then transfer that foot into the next pan containing water. Repeat for the other foot. Attendants will use care not to splash excess decontaminating solution outside of the step pans. Attendant will also wash their rubber gloves and their spare air bottle using brushes and/or sponges.
		2e. (O)(S) When directed by the attendant, emergency response personnel will enter MPDS trailer.
3.	Station A—decontamination. (1 attendant in Level C1)	3a. (O)(S) Emergency response personnel should walk up the steps slowly, using handrails as supports.
	NOTE: If MPDS is under manpower constraints, processing personnel may use “Buddy System” to decontaminate each other.	3b. (O)(S) Read the instructions posted on the walls of each station prior to proceeding.
	NOTE: Emergency response personnel will be directed how and when to proceed through MPDS by written signs, hand signs, and verbal commands.	3c. (O)(S) Emergency response personnel will wash down with the help of an attendant. Care must be taken to prevent liquid from entering the protective mask.
	WARNING: EMERGENCY RESPONSE PERSONNEL WILL USE HANDRAIL FOR SUPPORT WHEN LIFTING FEET.	3d. (O)(S) Using scrub brushes, attendant will assist the emergency response personnel. Special attention will be given to areas between the inner and outer cuffs on the sleeves of M3 suit, especially if liquid agent was present. Folds, creases, areas under straps of SCBA, and any other potentially contaminated areas will be given special consideration.
		3e. (O)(S) The monitoring room attendant inside the MPDS will monitor the procedure and advise personnel when to proceed to the next station.
4.	Station B—clear water rinse.	4a. (O)(S) One person at a time will proceed to Station B. After reading the directions posted on the wall, press red button to activate shower.
	WARNING: EMERGENCY RESPONSE PERSONNEL WILL USE HANDRAIL FOR SUPPORT WHEN LIFTING FEET.	4b. (O)(S) Impermeable suits, to include hood, M3 TAP suit, boots and gloves will be flushed with water. Operator will slowly raise and lower arms and feet, turning in place, allowing water spray to rinse off the decontaminating solution.
5.	Station C—PCE removal. (2 attendants in Level C1)	5a. (O)(S) Attendants will perform the following steps: 1. Close shower door. 2. Position the emergency response personnel in the center of Station C.

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
5.	<p>Station C—PCE removal. (con't) (2 attendants in Level C1)</p> <p>NOTE: Prior to moving to the "Clean Side", the emergency response personnel will be monitored using a Near Real Time (NRT) monitoring device. PCE removal can commence as soon as the person enters station C. If monitoring results indicate presence of agent, the emergency response personnel and those processing behind him/her will be directed to return to station A and start over. Depending on the number of emergency response personnel processing through, some might have to go back to CRA and wait. If a person processing through is in level C or below, or has had their PCE removed by the time MINICAMS alarm sounds, return to station B (water shower/rinse) and start over.</p> <p>CAUTION: Air bottles will be placed into chute with valves oriented up to prevent damage to the valve assembly.</p> <p>NOTE: External Polar Heart Rate Monitors will be removed from PCE ensemble and placed in a designated equipment drop off container.</p> <p>NOTE: Boot wash attendants should bag each SCBA assembly from chute individually. Bagged PCE will remain on the hot side of the hot line</p> <p>NOTE: Outside man in minimum Level D2 will remove SCBA assembly from the chute. Item will be placed in a plastic bag.</p>	<p>3. Remove tape and place in waste container.</p> <p>4. Unsnap outer sleeve cuffs and leg snaps.</p> <p>5. Remove butyl rubber gloves.</p> <p>6. Unsnap inner cuffs and remove external Polar Heart device and upper portion of suit.</p> <p>7. Leaving mask on, remove hood and unhook hood shoulder straps, remove SCBA assembly off the emergency response personnel's torso and have him/her hold it while the suit is pulled to half-mast.</p> <p>8. Have the emergency response personnel sit on the bench while removing their boots using the boot puller. Pull off suit leg first and right boot, then swinging right leg to "clean side; repeat for left leg. Attendants should help remove boots as necessary.</p> <p>5b. (O)(S) Attendant will instruct emergency response personnel to place SCBA on the floor at their side.</p> <p>5c. (O)(S) Instruct the emergency response personnel to move to the next station after being notified by the control room of a negative reading. Emergency personnel will take a deep breath and remove mask and quickly proceed to next station.</p> <p>5d. (O)(S) Attendant will gently lower SCBA assembly into the designated chute.</p>
6.	Station D—inner garment removal. (1 attendant in Level D2)	6. (O)(S) Have emergency response personnel remove their coveralls and place them into drop through chute.
7.	Station E—undress. (unmanned)	7. (O)(S) After door to station D closes completely, proceed to take off remaining articles of clothing and place into proper chutes.
8.	Station F—shower. (unmanned)	8a. (O) Close door to the previous station. 8b. (O)(S) Wash entire body with soap and water, paying particular attention to hair, underarms, and groin areas. 8c. (O) Proceed through to the next station.
9.	Station G—dry off and re-dress. (unmanned)	9a. (O) Towels and undergarments are available in glass enclosed cabinets – proceed to dry off and dress.

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STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
9.	Station G—dry off and re-dress. (con't) (unmanned)	9b. (O) Open curtain and proceed into next compartment, closing the curtain behind you.
10.	Station H – process out of MPDS. (manned)	10a. (O) Put on coveralls and shoes located in the cabinets. 10b. (O)(S) Obtain a M40 Series escape mask from a rack; make sure it is the same size as the one you were mask fitted with. Remove the mask and adjust straps appropriately. Replace the mask into the carrier. The person working in the control room will issue the mask. 10c. (O) Exit MPDS trailer and proceed to the medical personnel for post medical monitoring.

K. SPECIAL REQUIREMENTS:

1. Real time casualties or emergencies take precedence over training or exercise and will be handled immediately.
2. Special attention should be taken to account for all Polar Heart Rate Monitors and chest straps used during operation.

L. EQUIPMENT, TOOLS, GAUGES, AND SUPPLIES: (See Operation 5, Paragraph I).

OPERATIONS FORMAT

A. STANDING OPERATING PROCEDURE FOR Emergency Response B. OPERATION NO. 8

C. BAY NO. N/A

D. SOP NO. PU-0000-M-302 DATE: 28 Oct 02

E. REV NO. 5 DATE: _____

F. CHANGE NO. 6 DATE: MAR 4 2014

G. OPERATION: Processing Personnel in Level C1, C2, C3 and Level D1, D2

H. EXPLOSIVE LIMITS: UNITS N/A EXPLOSIVE LBS. N/A

I. PERSONNEL LIMITS: OPERATORS N/A TRANSIENTS: N/A

J.

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
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NOTE: Personnel in Level D2 will skip Station A

- | | | |
|----|---|---|
| 1. | Receive chemical accident/incident site (down range) personnel. | <p>1a. (O) Personnel reporting from down range will report to the Hot Line.</p> <p>1b. (O) Hot Line operators will instruct personnel reporting for processing on how to proceed through the CCL.</p> |
| 2. | Equipment drop/boot wash.
(1 attendant in Level C1) | <p>2a. (O) Drop all equipment (tools, flashlights, radios, etc.) into barrels as directed by attendant.</p> <p>2b. (O) Security force weapon, ammunition, and any other sensitive items, as well as equipment used by terrorists/intruders, will remain in the control of security forces and will not be processed through the Hot Line. They will be placed in the designated (blue) weapons barrel IAW Operation 7, Step 2.</p> <p>2c. (O)(S) Contaminated emergency response personnel will step into the first pan containing bleach where attendant will wash soil and possible contamination from gloves and boots using brushes or sponges.</p> <p>2d. (O)(S) When directed by the attendant, contaminated emergency response personnel will slowly raise one foot, wait for the attendant to scrub the sole of the boot and then transfer that foot into the next pan containing water. Repeat for the other foot. Attendant will use care not to splash excess decontamination solution outside of the step pans.</p> |

WARNING: ANYTIME A PERSON EXHIBITS SEVERE SYMPTOMS OF HEAT-RELATED ILLNESSES, HE/SHE WILL BE IMMEDIATELY CUT OUT OF THEIR PCE AND PROCESSED AND TRANSFERRED EXPEDIENTLY TO THE MEDICAL FACILITY FOR TREATMENT.

NOTE: If directed by IC/team captain/leader, CCL attendant may perform clothing decontamination in boot wash station.

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STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
2.	Equipment drop/boot wash. (con't) (1 attendant in Level C1)	2e. (O)(S) When directed by the attendant, emergency response personnel will enter MPDS trailer.
3.	Station A—decontamination. (1 attendant in Level C1)	3a. (O)(S) Emergency response personnel should walk up the steps slowly, using hand rails as supports.
	NOTE: If MPDS is under manpower constraints, processing personnel may use "Buddy System" to decontaminate each other.	3b. (O)(S) Read the directions in each station posted on the wall.
	NOTE: Personnel will be directed how and when to proceed through MPDS by written signs, hand signs, and verbal commands.	3c. (O)(S) Emergency response personnel will wash down with the help of an attendant. Care must be taken to prevent liquid from entering the protective mask canister. Emergency response personnel should place gloved hand over canister while being rinsed.
		3d. (O)(S) Using scrub brushes, attendant will assist emergency response personnel. Folds, creases, and any other potentially contaminated areas will be given special consideration.
		3e. (O)(S) The Hot Line attendant inside the MPDS will monitor the procedure and advise personnel when to proceed to the next station.
4.	Station B—clear water rinse.	4a. (O)(S) One operator at a time will proceed to Station B. After reading the directions posted on the wall, press red button to activate shower.
	WARNING: EMERGENCY RESPONSE PERSONNEL WILL USE HAND RAIL FOR SUPPORT WHEN LIFTING FEET.	4b. (O)(S) Impermeable suits, to include hood, apron, boots and gloves will be flushed with water. Attendant will slowly raise and lower arms and feet, turning in place, allowing water spray to rinse off the decontaminating solution.
5.	Station C – PCE removal. (1 attendant in Level C1)	5a. (O)(S) Emergency response personnel must inform attendant if any liquid contamination was encountered so that PCE will be handled appropriately.

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
5.	<p>Station C—PCE removal. (con't) (attendant in Level C1)</p> <p>NOTE: Prior to moving to the “Clean Side”, emergency response personnel will be monitored using a NRT monitoring device. PCE removal can commence as soon as the person enters station C. If monitoring results indicate presence of agent, emergency response personnel and those processing behind him/her will be directed to return to station A and start over. Depending on the number of personnel processing through, some might have to go back to CRA and wait. If a person processing through is in Level C1 or below, or has had their PCE removed by the time MINICAMS alarm sounds, return to station B (water shower/rinse) and start over.</p> <p>NOTE: External Polar Heart Rate Monitors will be removed from PCE ensemble and placed in a designated equipment drop off container.</p>	<p>5b. (O)(S) Attendant shall perform the following steps:</p> <ol style="list-style-type: none"> 1. Close shower door. 2. Position emergency response personnel in the center of Station C. 3. Unsnap hood straps. 4. Remove butyl rubber gloves. 5. Unsnap apron in the back. 6. Remove external Polar Heart Rate Monitor and apron. 7. Have emergency response personnel sit on the bench while removing their boots using the boot puller. Pull off right boot first, then swinging right leg to “clean side. Repeat for left leg.
6.	<p>Station D—mask and coveralls removal. (1 attendant in Level D2)</p>	<p>5c. (O)(S) Instruct emergency response personnel to move to the next station after being notified by the control room.</p> <p>6a. (O)(S) Enter station D, shutting the door to station C.</p> <p>6b. (O)(S) Attendant will have emergency response personnel remove their coveralls and place them in drop chutes.</p> <p>6c. (O)(S) Attendant will instruct emergency response personnel to remove the mask/hood, and then proceed to Station E.</p> <p>6d. (O)(S) Attendant will gently lower the mask into the designated chute.</p>
7.	<p>Station E—undress. (unmanned)</p>	<p>7. (O)(S) Proceed to take off remaining articles of clothing and place into proper receptacles.</p>
8.	<p>Station F—shower. (unmanned)</p>	<p>8a. (O) Close door to the previous station.</p> <p>8b. (O)(S) Wash entire body with soap and water, paying particular attention to hair, underarms, and groin areas.</p> <p>8c. (O) Proceed through to the next station.</p>
9.	<p>Station G—dry off and re-dress. (unmanned)</p>	<p>9a. (O) Towels and undergarments are available in glass enclosed cabinets – proceed to dry off and dress. Don appropriate clothing available outside the shower area.</p> <p>9b. (O) Open curtain and proceed into next compartment, closing the curtain behind you.</p>

OPER NO: 8 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
10.	Station H—process out of MPDS. (manned)	<p>10a. (O) Put on coveralls and shoes located in the cabinets.</p> <p>10b. (O)(S) Obtain a M40 Series escape mask from a rack; make sure it is the same size as the one you were fit tested with. Remove the mask and adjust straps appropriately. Replace the mask into the carrier. The person working in the control room will issue the mask.</p> <p>10c. (O) Exit MPDS trailer and proceed to the medical personnel for post medical monitoring.</p>

K. SPECIAL REQUIREMENTS:

- 1 Real time casualties or emergencies take precedence over training or exercise and will be handled immediately.
2. Special attention should be taken to account for all Polar Heart Rate Monitors and chest straps used during operation.

L. EQUIPMENT, TOOLS, GAUGES, AND SUPPLIES: (See Operation 5, Paragraph L).

OPERATIONS FORMAT

A. STANDING OPERATING PROCEDURE FOR Emergency Response B. OPERATION NO. 9
 C. BAY NO. N/A
 D. SOP NO. PU-0000-M-302 DATE: 28 Oct 02
 E. REV NO. 5 DATE: _____
 F. CHANGE NO. 6 DATE: _____

G. OPERATION: Processing of Personnel in Level A

H. EXPLOSIVE LIMITS: UNITS N/A EXPLOSIVE LBS. N/A

I. PERSONNEL LIMITS: OPERATORS 20 TRANSIENTS: 10

J. _____

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
1.	Receive chemical accident/incident site (down range) personnel. WARNING: ANYTIME A PERSON EXHIBITS SEVERE SYMPTOMS OF HEAT-RELATED ILLNESSES, HE/SHE WILL BE IMMEDIATELY CUT OUT OF THEIR PCE AND PROCESSED AND TRANSFERRED EXPEDIENTLY TO THE MEDICAL FACILITY FOR TREATMENT.	1a. (O) Personnel reporting from down range will report to the Hot Line. 1b. (O) Hot Line operators will instruct personnel reporting for processing on how to proceed through the CCL. 1c. (O)(S) First priority will be to check the gauge on the SCBA regulator a spare air bottle will be connected at the CCL; emergency response personnel with the least amount of air should be connected first. 1d. (O)(S) Prior to personnel entering MPDS, the pressure gauge on their spare bottle will be checked to ensure there is greater than 2500 psig remaining in their tank. If tank is showing less than 2500 psig replace spare bottle with a new one prior to entry into MPDS.
2.	Equipment drop /boot wash. (1 attendant in Level C1)	2a. (O) Drop all equipment (tools, flashlights, radios, etc.) into barrels as directed by attendant. 2b. (O) Security force weapon(s), ammunition, and any other sensitive items, as well as equipment used by terrorists/intruders, will remain in the control of security forces and will not be processed through the Hot Line. They will be placed in the designated (blue) weapons barrel IAW Operation 7, Step 2.

OPER NO: 9 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
2.	Equipment drop/boot wash. (con't) (attendant in Level C1)	2c. (O)(S) Contaminated emergency response personnel will step into the first pan with bleach where attendant will wash soil and possible contamination from gloves and boots using brushes or sponges.
	NOTE: If directed by IC/team captain/leader, CCL attendant may perform clothing decontamination in boot wash station.	
		2d. (O)(S) When directed by the attendant, contaminated emergency response personnel will slowly raise one foot, wait for the attendant to scrub the sole of the boot and then transfer that foot into the next pan containing water. Repeat for the other foot. Attendant will also wash the spare air bottle using brushes and/or sponges. Attendant will use care not to splash excess decontaminating solution outside of the step pan.
		2e. (O)(S) When directed by the attendant, emergency response personnel will enter MPDS trailer.
3.	Station A—decontamination (1 attendant in Level C1)	3a. (O)(S) Emergency response personnel should walk up the steps slowly, using hand rails as supports.
		3b. (O)(S) Emergency response personnel will wash down with the help of an attendant. Care must be taken to prevent the integrity of the suit.
	NOTE: Personnel will be directed how and when to proceed through MPDS by written signs, hand signs, and verbal commands.	3c. (O)(S) Using scrub brushes, attendant will assist emergency response personnel. Special attention will be given to areas under arms, between legs and bottom of feet, especially if liquid agent was present. Folds, creases, and any other potentially contaminated areas will be given special consideration.
		3d. (O)(S) The hot line attendant inside the MPDS will monitor the procedure and advise personnel when to proceed to the next station.
4.	Station B—clear water rinse.	4a. (O)(S) One Emergency response personnel at a time will proceed to Station B. After reading the directions posted on the wall, press red button to activate shower.
	WARNING: EMERGENCY RESPONSE PERSONNEL SHOULD USE HAND RAIL FOR SUPPORT WHEN LIFTING FEET.	4b. (O)(S) Impermeable suits, will be flushed with water. Operator will slowly raise and lower arms and feet, turning in place, allowing water spray to rinse off the decontaminating solution.
5.	Station C—PCE removal. (1 attendant in Level C1)	5a. (O)(S) Emergency response personnel must inform attendant if any liquid contamination was encountered so that PCE will be handled appropriately (example - bagged or tagged).

OPER NO: 9 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
5.	Station C—PCE removal. (con't) (1 attendant in Level C1)	5b. (O)(S) Perform the following steps: <ol style="list-style-type: none"> 1. Attendant will position emergency response personnel in Station C. 2. Attendant will unsnap ankle cuffs. Wearer will remove TAP boots. 3. Attendant will unsnap protective suit storm flap; unzip the zipper. 4. Attendant will turn off Personal Ice Cooling System (PICS), if applicable. 5. Wearer will remove hands and arms from the sleeves. 6. Wearer will disconnect left and right visor support straps (identified with red tape). 7. Wearer will disconnect suspender straps (identified with yellow tape). 8. Wearer will disconnect internal PICS tether assembly (identified with white tape). 9. Wearer will remove Polar Heart Rate Monitor and lower suit to half mast, disconnecting the support strap. 10. Attendant will have emergency response personnel sit while pulling suit off their right leg and then, keeping the leg raised, transfer the leg to the clean side. Repeat for left leg. 11. Wearer will return back to SCBA breathing apparatus prior to move to the next station. 12. Attendant will drop spare tank and the suit through chute.
	<p>NOTE: Prior to moving to the “Clean Side”, emergency response personnel will be monitored using a Near Real Time (NRT) monitoring device.</p> <p>NOTE: Boot wash attendant should bag each Level A suit individually. Bagged PCE will remain on the hot side of the hot line.</p> <p>NOTE: External Polar Heart Rate Monitors will be removed from PCE ensemble and placed in a designated equipment drop off container.</p>	
		5c. (O)(S) Instruct emergency response personnel to move to the next station.
6.	Station D—mask and coveralls removal. (1 attendant in Level D2)	6a. (O)(S) Remove SCBA apparatus by having emergency response personnel back up to a ceiling hook, and hanging the harness on it to support the weight of the system.
	<p>CAUTION: Air bottles will be placed into chute with valves oriented up to prevent damage to the valve assembly.</p> <p>NOTE: Outside man in Level D2 will remove SCBA assembly from the chute. Item will be placed in a plastic bag.</p>	6b. (O)(S) Attendant will instruct emergency response personnel to remove the SCBA mask then proceed to Station E.
		6c. (O)(S) Have emergency response personnel remove their cooling shirt and drop it through the chute.
		6d. (O)(S) Attendant will gently lower SCBA assembly into the designated chute.
7.	Station E—undress. (unmanned)	7. (O)(S) After door to station D closes completely, proceed to take off remaining articles of clothing and place into proper receptacles.

OPER NO: 9 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
8.	Station F--shower. (unmanned)	8a. (O) Close door to the previous station. 8b. (O)(S) Emergency response personnel will shower and wash hair with warm, soapy water thoroughly. 8c. (O) Proceed through to the next station.
9.	Station G—dry off and re-dress. (unmanned)	9a. (O) Towels and undergarments are available in glass enclosed cabinets - proceed to dry off and dress. 9b. (O) Open curtain and proceed into next compartment, closing the curtain behind you.
10.	Station H—process out of MPDS. (manned)	10a. (O) Put on coveralls and shoes located in the cabinets. 10b. (O)(S) Obtain a M40 Series escape mask from a rack; make sure it's the same size as the one used to perform a fit test. Remove the mask and adjust straps appropriately. Replace the mask into the carrier. The control room attendant will issue the mask. 10c. (O) Exit MPDS trailer and proceed to the medical personnel for post medical monitoring.

K. SPECIAL REQUIREMENTS:

1. Real time casualties or emergencies take precedence over training or exercise and will be handled immediately.
2. Special attention should be taken to account for all Polar Heart Rate Monitors and chest straps used during operation.

L. EQUIPMENT, TOOLS, GAUGES, AND SUPPLIES: (See Operation 5, Paragraph L).

OPERATIONS FORMAT

A. STANDING OPERATING PROCEDURE FOR **Emergency Response** B. OPERATION NO. 10
 C. BAY NO. N/A
 D. SOP NO. PU-0000-M-302 DATE: 28 Oct 02
 E. REV NO. 5 DATE: _____
 F. CHANGE NO. 6 DATE: MAR 4 2014

G. OPERATION: Shut Down Procedures

H. EXPLOSIVE LIMITS: UNITS N/A EXPLOSIVE LBS. N/A
 I. PERSONNEL LIMITS: OPERATORS 20 TRANSIENTS: 10
 J.

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
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1. MPDS shutdown.

- 1a. (O)(S) Monitor the rooms for potential contamination starting in the control room and work backwards towards room A, if positive readings were obtained in Room C. Perform decontamination if needed.
- 1b. (O)(S) Dry up any excess liquid around the shower rooms (Station A, B and F) using rags.
- 1c. (O) Turn off the interlock switch in the control room.
- 1d. (O) Turn off the decontamination brush pump switch located in the control room.
- 1e. (O)(S) Seal up discarded protective clothing, coveralls, towels, rags, weapons, ammunition, and other sensitive items in plastic bags. Transport these items for monitoring and decontamination as appropriate. Process items for storage pending disposal in accordance with regulatory guidance.

NOTE: During processing of weapons, ammunition and sensitive security items, a security guard must be present to assure accountability and custody of these items.

2. MPDS storage preparation.

- 2a. (O)(S) Procure suitable containers and equipment for draining fresh water, gray water, and decontaminating tanks.
- 2b. (O) Connect a hose to the fresh water tank drain valve. Run the other end of the hose into a container.
- 2c. (O) Open the fresh water tank drain valve until the tank is emptied. Some water at the bottom of the tank is acceptable.

OPER NO: 10 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
2.	MPDS storage preparation. (con't)	<p>2d. (O) Connect a hose to the first gray water tank drain valve. Run the other end of the hose into a container.</p> <p>2e. (O) Open the gray water tank drain valve until the tank is empty. Some water at the bottom of the tank is acceptable.</p> <p>2f. (O) Connect a hose to the second gray water tank drain valve. Run the other end of the hose into a container.</p> <p>2g. (O) Open the gray water tank drain valve until the tank is empty. Some water at the bottom of the tank is acceptable.</p> <p>2h. (O) Connect a hose to the decontamination tank drain valve. Run the other end of the hose into a container.</p> <p>2i. (O) Open the decontamination drain valve until the tank is empty. Some fluid at the bottom of the tank is acceptable.</p> <p>2j. (O) Shut each of the drain valves and remove the hoses and containers.</p> <p>2k. (O)(S) Grey water container will be monitored by Toxic Chemical Laboratory and disposed of by Environmental Management Office.</p> <p>2l. (O) Verify that the covers are placed on the sampling ports.</p> <p>2m. (O) Remove drop chutes and drop chute extensions from the trailer</p> <p>2n. (O) Secure the drop chutes into the storage shelves with the hold down bars.</p> <p>2o. (O) Reinstall sliding doors in each drop. Lock each door.</p> <p>2p. (O) (S) Place any loose operational items such as pylons, chairs, or benches inside the MPDS.</p> <p>2q. (O) Return the CO monitor to Chemical Operations Division/Monitoring/Laboratory Branch.</p> <p>2r. (O) Turn off the MPDS HVAC system using the thermostat in control room.</p> <p>2s. (O) Turn the FILTER UNIT EXHAUST FAN switch (located in the control room) to the OFF position. A red light located on the switch will go off and the blower will stop. The air dampers located in room A and C will automatically close when the switch is turned off.</p>

OPER NO: 10 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
2.	MPDS storage preparation. (con't)	<p>2t. (O) Turn off the filter unit ventilation system fan on the filter housing at the rear of the MPDS. Used the supplied ladder to gain access to the ventilation system exhaust port weather cap. Move the latch mechanism over the exhaust port. Latch the weather cap by tightening the hand nut.</p> <p>2u. (O) Turn off interior lights.</p> <p>2v. (O) If electric power to MPDS was supplied by the diesel generator, turn the diesel switch to "OFF" position. If electric power to MPDS was supplied by shore power, move service disconnect switch to "OFF" position; disconnect power cable.</p> <p>2w. (O)(S) Disconnect the grounding clamp from the grounding rod and rewind the cable onto the grounding reel. Remove grounding rod and stow.</p> <p>2x. (O)(S) Verify personnel have exited MPDS trailer. Lock the front and rear doors.</p> <p>2y. (O)(S) Disassemble and stow the front and rear platform steps.</p> <p>2z. (O)(S) Shut off proper cylinders.</p>

NOTE: Hearing protection will be utilized by personnel entering the generator room while in operation.

K. SPECIAL REQUIREMENTS:

Supplies and equipment will be inventoried and inspected after each use by the MPDS Team Captain/Leader. A list of supplies that need to be re-stocked in the MPDS will be submitted to the Change House Coordinator.

L. EQUIPMENT, TOOLS, GAUGES, AND SUPPLIES: None required.

OPER NO: 11 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

OPERATIONS FORMAT

A. STANDING OPERATING PROCEDURE FOR B. OPERATION NO. 11

Emergency Response C. BAY NO. N/A

D. SOP NO. PU-0000-M-302 DATE: 28 Oct 02

E. REV NO. 5 DATE: _____

F. CHANGE NO. 6 DATE: _____

G. OPERATION: Donning and Doffing of Level A

H. EXPLOSIVE LIMITS: UNITS N/A EXPLOSIVE LBS. N/A

I. PERSONNEL LIMITS: OPERATORS N/A TRANSIENTS: N/A

J.

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
1.	Pre-donning procedures. Note: Prior to donning Level A protective outfit, personnel will be medically monitored IAW PCD R 385-507. Note: Personnel will receive training and will practice wearing PCE prior to performing chemical duties in their protective outfits.	1a. (O) Remove suit from storage container. 1b. (O)(S)(QC) Ensure PCE has a current inspection date. DO NOT use a damaged suit. Check for holes, rips and abrasions. Return it to clothing inspector if found unserviceable. 1c. (O)(QC) Wearer will perform an audio-visual alarm test upon receipt of SCBA. 1d. (O) Innerwear will consist of cotton underwear and/or shorts, and cotton T-shirt.
2.	Donning procedures. Caution: Ensure Polar Heart Rate Monitor is utilized IAW PCD-R 385-507 prior to donning.	2a. (O) Don personal cooling system. 2b. (O) Don protective suit IAW manufacturer instructions, stopping at proper point to don SCBA.
	Note: Wearer will require at least one assistant to assist with donning/doffing of Level A.	

OPER NO: 11 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
2.	Donning procedures. (con't)	
	<p>Caution: Equipment damage. Walking or standing in protective suit booties on rough surfaces will cause abrasions or tears to booties. If surface is rough, stand on a piece of cardboard, carpet, or similar material to protect suit booties</p>	
		<p>2c. (O)(S)(QC) Ensure Sign Out Sheet is present inside SCBA container. This form indicates the SCBA has a current inspection date. Form must be signed by SCBA wearer prior to donning. The user will inspect and test the SCBA unit assigned to them in accordance with the manufacturer's operating instruction and all training provided.</p>
	<p>Caution: Backpack of SCBA should be worn to the wearer's comfort.</p>	<p>2d. (O) Don SCBA. Open eccentric side buckles.</p>
		<p>2e. (O) Using both hands, pull left and right waist belts straight out and clip together.</p>
		<p>2f. (O) Using both hands, pull loose ends of waist straps to side to tighten harness assembly.</p>
		<p>2g. (O) Lock down eccentric side buckles.</p>
		<p>2h. (O) Don the communication system. (OPTIONAL) Position throat mike to one side of "Adam's apple".</p> <p>(1) Plug microphone jack into top of speaker case.</p> <p>(2) Place around waist as required.</p> <p>(3) Turn on and listen for signals indicating proper operation.</p> <p>(4) Set volume.</p>
		<p>2i. (O) Fully extend face mask head harness straps and lay head harness over front of facemask.</p>
		<p>2j. (O) Remove rubber plug from valve and retain. Connect breathing hose (from pressure gauge manifold) to suit pass-through.</p>
		<p>2k. (O) Depress lever on breathing valve then reach back with left hand and open cylinder valve completely.</p>

OPER NO: 11 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTIONS (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
2.	Donning procedures. (con't)	<p>2l. (O) Place facemask on face forcing chin cup tightly against chin.</p> <p>2m. (O) Pull facemask head harness over head.</p> <p>2n. (O) Pull straight back on facemask head harness straps to tighten, beginning with lower jaw straps, then middle straps and finally top strap</p> <p>2o. (O) Inhale, turning on positive pressure automatically. Exhale to reset diaphragm assembly in neutral position.</p> <p>2p. (O)(QC) Stop breathing and listen for any leakage. If leakage is heard check that there is no interference with face seal. Re-adjust head harness as necessary. Check to ensure bypass valve is closed.</p> <p>2q. (O)(QC) Check positive pressure by holding breath and inserting two fingers between sealing edge of face mask and face. Air should escape. Remove fingers. No sound of escaping air should be heard.</p> <p>2r. (O)(QC) Check bypass operation by turning bypass knob clockwise and listen for air flow. Close bypass by turning bypass knob counter clockwise until knob is against the stop.</p> <p>2s. (O)(QC) Check pressure gauge. Pressure gauge needle should be in green area.</p> <p>2t. (O)(QC) Continue donning protective suit IAW manufacturer instructions.</p>

Note: To save cylinder air wearer can go to ambient air until Level A suit is zipped.

Note: Place a piece of terry cloth towel inside protective suit pocket to be used to clear the face shield if fogging occurs.

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTIONS (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
	<p>WARNING: ALL PERSONNEL SUBJECT TO HEAT STRESS ENVIRONMENTS WILL BE GIVEN SUFFICIENT WORK/REST CYCLE TIME BETWEEN OPERATIONS TO AVOID HEAT STRESS ILLNESS. SITE SUPERVISOR WILL ENSURE THAT REQUIRED RESPIRATOR AND PCE TRAINING HAS BEEN COMPLETED; MEDICAL SCREENING MUST BE COMPLETED PRIOR TO DONNING SCBA. ALL OPERATORS SHOULD DRINK COPIOUS AMOUNTS OF WATER DURING WARM WEATHER OPERATIONS. SITE SUPERVISORS WILL MONITOR THE WBGT AND ADJUST DAILY OPERATIONS ACCORDINGLY. SITE SUPERVISORS MUST ENSURE COOLING VEST/SYSTEM IS WORN IAW HEAT STRESS PLAN IAW PCD-R 385-507.</p>	
<p>3. Operating conditions.</p> <p>WARNING: LIMITED BREATHING AIR IN SCBA. LEAVE AREA IMMEDIATELY WHEN ALARM WHISTLE SOUNDS. AN AUDIBLE ALARM INDICATES REMAINING BREATHING AIR PRESSURE IN SCBA CYLINDER HAS DROPPED BELOW 25 PERCENT CAPACITY. THE "BUDDY SYSTEM" WILL BE USED TO MONITOR AIR SUPPLY.</p> <p>Note: Additional SCBA air tanks are available as needed.</p>		<p>3a. (O)(S) Monitor pressure gauge. Ensure pressure gauge needle is in the green area, indicating tank has been fully charged to greater than 90% rated capacity.</p> <p>3b. (O)(S) While leaving area and performing decontamination, monitor SCBA pressure gauge. A low pressure audible alarm will sound when SCBA cylinder has approximately 25 percent (approximately 1125 psig) air remaining.</p>
<p>4. Hot weather precautions.</p> <p>WARNING: HEAT STRESS ILLNESS. LEVEL A USERS SHOULD BE GIVEN SUFFICIENT RECUPERATION TIME BETWEEN OPERATIONS IN HOT WEATHER ENVIRONMENTS TO AVOID HEAT STRESS ILLNESS. HEAT STRESS ILLNESS COULD RESULT FROM EXTENDED USE WITHOUT PROPER REST AND FLUID REPLENISHMENT.</p>		<p>4a. (S) Protective suit. When the protective suit is worn in hot environments and while working at high work rates, the user will be more prone to heat stress illness. Heat stress illness may result due to heat build-up inside the protective suit and subsequent rise in body core temperature. Every effort should be made to rotate personnel in the work cycle to allow the body to recuperate.</p> <p>4b. (S) Prevention of heat stress illness. As a general rule to prevent fatigue and heat stress illness, the wearer's rest work cycle time should be equivalent to three times the period of time that the protective suit is worn; however, the final decision on the appropriate rest work cycle time will be determined by the CMA.</p>

OPER NO: 11 SOP NO: PU-0000-M-302 REV. 5 CHG 6 DATE MAR 1 2014

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTIONS (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
4.	Hot weather precautions. (con't)	4c. (S) Heat Stress Illness. If the user becomes a casualty of heat stress illness, they must be removed from the protective suit immediately. If the casualty is in a contaminated area, evacuate the casualty to an established hot-line or an uncontaminated area upwind of the work site for decontamination and removal of the protective suit.
5.	<p data-bbox="203 472 763 514">Doff protective suit.</p> <p data-bbox="203 630 763 787">WARNING: ASSISTANT, DRESSED IN LEVEL C1, WILL KEEP HANDS AWAY FROM INSIDE OF SUIT TO AVOID POSSIBLE CONTAMINATION TO WEARER.</p> <p data-bbox="203 819 763 913">Caution: Personnel Contamination Hazard. All equipment must be decontaminated in accordance with local procedures.</p> <p data-bbox="203 945 763 1039">Note: Assistant will fold suit to outside and pull wearer's feet from booties preventing suit from touching wearer when stepping out of suit.</p> <p data-bbox="203 1071 763 1228">Caution: Decontamination procedures will have been accomplished; however, as a precaution, wearer will not touch outside of protective suit during doffing. Assistant will ensure protective suit is folded outward away from body.</p> <p data-bbox="203 1344 763 1501">Caution: Equipment Damage. If ground/walking surface is rough, a protective covering will be used to stand on. Walking or standing in protective suit on rough surfaces will cause abrasions or tears to booties.</p>	<p data-bbox="795 472 1518 546">5a. (O) Perform decontamination procedures in accordance with Operation 9.</p> <p data-bbox="795 567 1518 598">5b. (O) Doff protective suit IAW manufacturer instructions.</p> <p data-bbox="795 630 1518 661">5c. (O) Assistant will remove communications system, if used,</p> <p data-bbox="795 819 1518 882">5d. (O) Wearer will step completely out of protective suit and proceed to cold side of hot-line.</p> <p data-bbox="795 1060 1518 1123">5e. (O) Wearer will loosen facemask head harness and remove facemask.</p> <p data-bbox="795 1249 1518 1312">5f. (O) Mask breathing valve and SCBA cylinder valve will be shut off by either wearer or assistant.</p> <p data-bbox="795 1344 1518 1407">5g. (O) Wearer will release SCBA waist belt by pressing male buckle button in center.</p> <p data-bbox="795 1522 1518 1585">5h. (O)(S) Wearer will remove SCBA, using care not to drop unit.</p> <p data-bbox="795 1617 1518 1753">5i. (O)(QC) Assistant will separately bag SCBA, and Level A/related clothing, maintaining individual wearer integrity of each. PCE used in an agent environment will be managed in accordance with Operation 9 of this SOP.</p> <p data-bbox="795 1774 1518 1869">5j. (O) Level A/SCBA ensemble will be transported to Bldg 475 monitoring shed and monitored in accordance with SOP PU-0000-R-491.</p>

OPER NO: 11 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTIONS (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
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K. SPECIAL REQUIREMENTS: Regulatory requirements, maintenance forms and records will be those prescribed by DA PAM 738-750, The Army Maintenance Management System (TAMMS).

L. EQUIPMENT, TOOLS, GAGES AND SUPPLIES.

ITEM	QTY REQ'D	SPEC/DWG NUMBER	MCN/NSN
Level A Ensemble	As Required		
SCBA Ensemble	As Required		
Terry cloth towel	As Required		
Plastic Bags	As Required		
Tape, Duct	As Required		

OPER NO: 12 SOP NO: PU-0000-M-302 REV 5 CHG 6 DATE MAR 4 2014

OPERATIONS FORMAT

A. STANDING OPERATING PROCEDURE FOR B. OPERATION NO. 12

Emergency Response C. BAY NO. N/A

D. SOP NO. PU-0000-M-302 DATE: 28 Oct 02

E. REV NO. 5 DATE: _____

F. CHANGE NO. 6 DATE: _____

G. OPERATION: Donning and Doffing of Level B

H. EXPLOSIVE LIMITS: UNITS N/A EXPLOSIVE LBS. N/A

I. PERSONNEL LIMITS: OPERATORS N/A TRANSIENTS: N/A

J.

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
1.	Obtain protective equipment. Note: Prior to donning PCE personnel will be medically monitored IAW PCD R 385-507. Note: Personnel will receive training and will practice wearing PCE prior to performing chemical duties in their protective gear.	1a. (O)(QC) Receive SCBA unit from Protective Equipment Section. Inspect and test and sign-out unit. 1b. (O)(QC) Receive Level B PCE from Protective Equipment Section Building 475. Inspect and sign-out.
2.	Don protective equipment. Caution: Ensure Polar Heart Rate Monitor is utilized IAW PCD-R 385-507 prior to donning.	2a. (O) Don butyl boots. 2b. (O) Don Level B suit and butyl gloves. 2c. (O)(S) After donning the Level B suit ensure the inner cuffs are snapped, pull draw strings then snap the outer cuffs. Ensure that the cuffs (wrist and ankles) are sufficiently taped leaving a 1" tab for quick removal.

STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
2.	Don protective equipment. (con't)	2d. (O) Attach M3 hood to SCBA mask.
	<p>WARNING: ALL PERSONNEL SUBJECT TO HEAT STRESS ENVIRONMENTS WILL BE GIVEN SUFFICIENT WORK/REST CYCLE TIME BETWEEN OPERATIONS TO AVOID HEAT STRESS ILLNESS. SITE SUPERVISOR WILL ENSURE THAT REQUIRED RESPIRATOR AND PCE TRAINING HAS BEEN COMPLETED; MEDICAL SCREENING MUST BE COMPLETED PRIOR TO DONNING SCBA. ALL OPERATORS SHOULD DRINK COPIOUS AMOUNTS OF WATER DURING WARM WEATHER OPERATIONS, SITE SUPERVISORS WILL MONITOR THE WBGT AND ADJUST DAILY OPERATIONS ACCORDINGLY. SITE SUPERVISORS MUST ENSURE COOLING VEST/SYSTEM IS WORN IAW HEAT STRESS PLAN IAW PCD-R 385-507.</p>	2e. (O) Don SCBA unit.
3.	Doff protective equipment.	3a. (O) Remove hood leaving SCBA unit on, only loosening waist buckle from SCBA straps.
		3b. (O) Remove tape from wrist and ankles, unsnap snaps and loosen pull string. Assistant will remove SCBA tank and harness from the back of the wearer and hand tank to wearer.
		3c. (O)(S) Assistant will remove one arm from Level B suit while wearer holds tank and harness with other arm. Wearer will then transfer tank and harness to gloved hand of freed arm.
	<p>WARNING: ASSISTANT DRESSED IN LEVEL C1 SHOULD KEEP HANDS AWAY FROM INSIDE OF LEVEL B TO AVOID POSSIBLE CONTAMINATION.</p>	3d. (O)(S) Assistant will pull suit down below waist before wearer sits on bench.
		3e. (O)(S) Assistant will remove boots and suit legs, one at a time, from the suit and wearer will place one leg on the cold side while still holding the SCBA, then swing other leg to cold side Assistant will take the SCBA. After both legs and arms are on the cold side, wearer will doff gloves on hot side, then doff SCBA mask, chin first, on hot side.
		3f. (O)(QC) Assistant will individually bag SCBA/PCE as each individual processes through the decontamination station. Each bag will contain the PCE from one individual and will be sealed following PCE collection.

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STEP NO.	DESCRIPTION	SPECIFIC INSTRUCTION (SAFETY (S), OPERATIONAL (O), QUALITY CHARACTERISTICS (QC)).
3.	Doff protective equipment. (con't)	3g. (O)(QC) PCE utilized in agent environments will be managed in accordance with Operation 11 of this SOP. 3h. (O) Personnel wearing butyl rubber gloves will collect and transport the sealed bags to the Building 475 Monitoring Shed, where the bags will for monitoring in accordance with SOP PU-0000-R-491.

K. SPECIAL REQUIREMENTS: Regulatory requirements, maintenance forms and records will be those prescribed by DA PAM 738-750, The Army Maintenance Management System (TAMMS).

L. EQUIPMENT, TOOLS, GAGES AND SUPPLIES.

ITEM	QTY REQ'D	SPEC/DWG NUMBER	MCN/NSN
Level B Ensemble	As Required		
SCBA Ensemble	As Required		
Plastic Bags	As Required		
Tape, Duct	As Required		

APPENDIX A
PERSONNEL PROTECTIVE CLOTHING AND EQUIPMENT (PPE)
FOR H SERIES TOXIC CHEMICAL AGENTS

I. General philosophy and levels of protection.

a. Protective Clothing and Equipment (PCE). The use of personnel PCE is the least desirable method of complying with permissible exposure limits. Efforts will be made to reduce dependence upon PCE in agent operating environments through the increased use of engineering and administrative controls such as ventilation, isolation, remote operations, remote monitoring, and elimination of all nonessential entries into agent areas. Hazard analyses will reflect that these alternatives have been explored.

b. Operational constraints when using PCE. The use of protective clothing can itself create significant worker hazards, such as heat stress, physical and psychological stress, and impaired vision, mobility, and communication. For any given situation, equipment and clothing should be selected that provides an adequate level of protection.

c. Protection levels:

LEVEL A
COMPONENTS
Suit, Totally Encapsulating, Chemical Protective (such as TyChem Responder CSM or TyChem RF600T SV)
Positive Pressure Self Contained Breathing Apparatus (SCBA) or Supplied Air with Escape SCBA
Gloves, M3/M4; Glove Set, Butyl Outer
Boots, M2A1, Butyl with Safety Toe or BATA Boot
Government Issued Soft Clothing (i.e. Coveralls/Undergarments)

LEVEL B
COMPONENTS
Suit, Hooded (One or Two Piece), Chemical Resistant (such as M3, Butyl Rubber Toxic Agent Protective (TAP) suite worn with Modified M30 TAP Hood and SCBA)
Positive Pressure SCBA
Hood, Tap, Modified M30 for SCBA
Gloves, M3/M4; Glove Set, Butyl Outer
Boots, M2A1, Butyl with Safety Toe or BATA Boot
Government Issued Soft Clothing (i.e. Coveralls/Undergarments)

Note: Butyl rubber suit shall be taped to the gloves and boots in situations requiring Level B protection.

**APPENDIX A
PERSONNEL PROTECTIVE CLOTHING AND EQUIPMENT (PPE)
FOR H SERIES TOXIC CHEMICAL AGENTS**

LEVEL C(1)
COMPONENTS
Chemical Resistant Apron (such as M2, Butyl (Extending Below Boot Tops), TyChem SL, or TyChem F aprons) or One Piece Coverall (such as Dupont® Tychem TF145T GY Suit)
Mask Worn, M40 Series
Hood, Quick Doff
Gloves, M3, M4, Gloveset, Butyl Outer
Boots, M2A1, Butyl, With Safety Toe or BATA Boot
Government Issued Soft Clothing (i.e. Coveralls/Undergarments)

LEVEL C(2)
COMPONENTS
Chemical Resistant Apron (such as M2, Butyl (Extending Below Boot Tops), TyChem SL, or TyChem F apron)
Mask Worn, M40 Series
Gloves, M3, M4, Gloveset, Butyl Outer
Boots, M2A1, Butyl, With Safety Toe or BATA Boot
Government Issued Soft Clothing (i.e. Coveralls/Undergarments)

LEVEL C(3)
COMPONENTS
Mask Worn, M40 Series
Gloves, M3, M4, Gloveset, Butyl Outer
Boots, M2A1, Butyl, With Safety Toe or BATA Boot
Government Issued Soft Clothing (i.e. Coveralls/Undergarments)

LEVEL D(1)
COMPONENTS
Chemical Resistant Apron (such as M2, Butyl (Extending Below Boot Tops), TyChem SL, or TyChem F apron)
Mask Slung, M40 Series
Gloves, M3, M4, Gloveset, Butyl Outer
Boots, M2A1, Butyl, With Safety Toe or BATA Boot
Government Issued Soft Clothing (i.e. Coveralls/Undergarments) or Lab Coat for laboratory personnel only

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**APPENDIX A
PERSONNEL PROTECTIVE CLOTHING AND EQUIPMENT (PPE)
FOR H SERIES TOXIC CHEMICAL AGENTS**

LEVEL D(2)
COMPONENTS
Mask Slung, M40 Series
Gloves, M3, M4, Gloveset, Butyl Outer
Boots, M2A1, Butyl, With Safety Toe, BATA Boot or Safety Shoes
Government Issued Soft Clothing (i.e. Coveralls/Undergarments) or Lab Coat for laboratory personnel only

NON CHEMICAL WORKERS
COMPONENTS
Mask Slung, M40 Series
Street Attire (Substantial Closed Toe Shoes)
Safety Glasses or Goggles (Optional or as Determined by Job Hazard Analysis)

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APPENDIX B
TESTING FOR CONTAMINATION USING ABC-M8 DETECTOR PAPER

LIQUID TEST:

1. Verify expiration date as noted on ABC-M8 prior to use.
2. Remove a sheet of ABC-M8 detector paper from the booklet.
3. Using tongs, place the paper in contact with the suspected surface (BLOT—DO NOT RUB) being careful not to allow gloved fingers to touch the spill. Wait approximately 30 seconds, and observe for a color change.
4. Compare the color change with the typical colors shown on the inside front cover of the book. Red indicates the presence of mustard agent. Do not touch M8 paper that has been exposed to suspect liquid.
5. Confirmation will be accomplished IAW SOP PU-0000-R-491.
6. Leave exposed M8 paper in the first step pan next to the igloo door. This pan contains bleach for decontamination.

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APPENDIX C
HIGH TEST HYPOCHLORITE (HTH) MIXING INSTRUCTIONS

1. Area and Equipment Decontamination IAW FM 3-21.

HTH, 10% Solution—Area, equipment and contaminated TAP clothing.

Water (gallons)	240	120	60	48	36	12	6	3
Decontaminant (lbs.)	200	100	50	40	30	10	5	2.5

2. Quantities of Decontaminant Required:

The quantity of decontaminant available at any agent operating site will be sufficient to cope with the maximum spill potential involved.

<u>No. of Rounds</u>	<u>Munitions</u>	<u>Agent (lbs)</u>	<u>HTH (lbs)</u>	<u>Water (gal)</u>
1	4.2 Cartridge	6.0	3.0	3.6
1	105MM Cartridge	3.2	1.5	1.8
1	155MM Projectile	11.7	6.0	7.2

Contact time: HTH Solution contact time for Decontamination-Rapid (5 Minutes).

3. Mixing Instruction for HTH:

Utilize a bleach bottle with the bottom removed (cut out) as a measuring scoop.
 This scoop when filled to level = 8.3 lbs. of HTH.

4. Mixing instructions for M12A1 Decontaminating Apparatus:

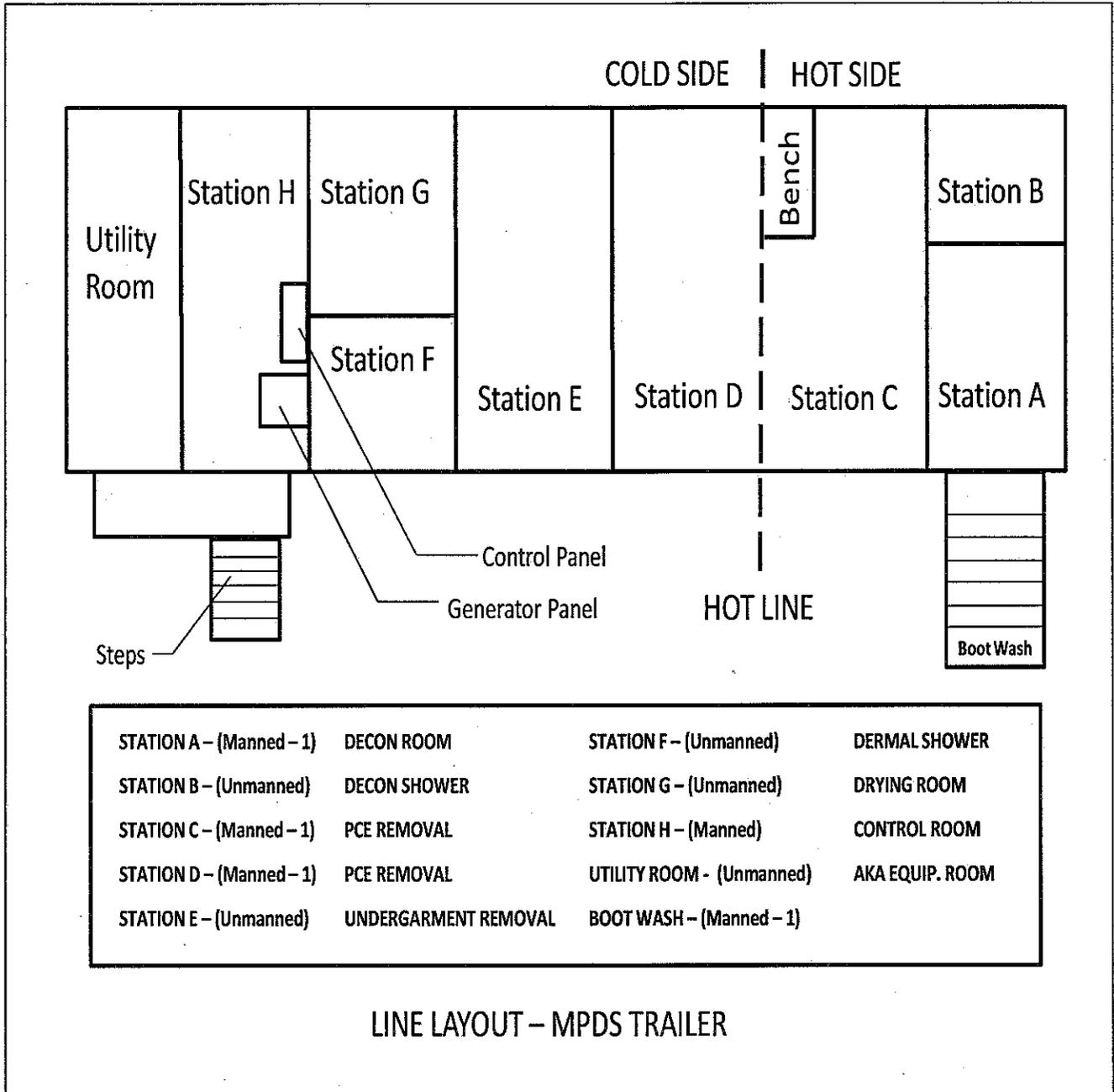
Blend 175 pounds of HTH to 350 gallons of water IAW TM 3-4230-209-10.

WARNING:

- 1. DRY HTH SHOULD NOT BE APPLIED TO SPILLED LIQUID MUSTARD AGENT AS IT WILL CAUSE SPONTANEOUS COMBUSTION.**
- 2. HTH DECONTAMINANTS HAVE A SEVERE IRRITATING EFFECT UPON THE EYES, SKIN AND RESPIRATORY TRACT. PROTECTIVE MASK AND RUBBER GLOVES ARE THE MINIMUM PROTECTIVE EQUIPMENT FOR HANDLING HTH. OPERATORS MIXING HTH MUST WEAR, AS A MINIMUM, PROTECTIVE MASK, BUTYL GLOVES AND BUTYL APRON.**

APPENDIX D

LINE LAYOUT FOR MPDS TRAILER



APPENDIX E

M12A1
EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET

EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET					
1 ORGANIZATION Chemical Ammunition, Pueblo Chemical Depot			2. NOMENCLATURE AND MODEL Decon Apparatus M12A1		
3. REGISTRATION/SERIAL/NSN		4a MILES	b. HOURS	5. DATE:	
		N/A	N/A		
7. APPLICABLE REFERENCE					
TM NUMBER: TM-3-4230-237-10		TM DATE: 30 Nov 2003		6. TYPE INSPECTION Operator PM	
COLUMN a- Enter TM Number COLUMN b- Enter the applicable condition status symbol. COLUMN c - (B) Before, (D) During, (A) After codes--Items to be checked COLUMN B: <u>LAST NAME INITIAL IN BLACK, BLUE-BLACK INK OR PENCIL,</u> <u>Indicates that a completely satisfactory condition exists.</u>					
8a. SIGNATURE (Person(s) performing inspection)					
TM ITEM NO.	STATUS b.	c.			
a.					
BEFORE OPERATION CHECKS					
1		Publications present			
2		M12A1 Decon			
		Pump Unit			
3		Cover Panels			
4		Battery			
5		Gun Assembly and Slurry Nozzle Assembly			
6		Tank Assembly and Tank Lid			
7		Discharge Hose Assembly			
8		Educator Hose Assembly			
9		Fuel Tank			
10		Fuel Indicator			
11		Pump Subassembly			
12		Hose Reels			
13		Connector Panel			
14		Drive Belts			
15		Plumbing Assembly			
16		Centrifugal Pump			
17		Valve No 1 Manifold - Open			
18		Valve No. 2 lower reel - Closed			
19		Valve No. 3 Open			

APPENDIX E

**M12A1
EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET**

TM ITEM NO. a.	STATUS b.	c.	INITIAL WHEN CORRECTED
20		Air Filter Assembly	
21		Engine oil and Engine oil filter	
22		Fuel Hose	
23		Control Panel Assembly	
Tank Unit			
24		Tank Unit - check Water level	
25		Hopper Assembly	
26		Suction Hose Assembly	
27		Blender Hose	
28		Tank Drain	
29		Control Box Assembly	
30		All Fabricated Lines	
31		Fuel Filter	
32		Power Cable	
33		Water Hose	
DURING OPERATION CHECKS			
Pump Unit			
1		Discharge Hose Assemblies	
2		Fuel Tank	
3		Outlet Hoses	
4		Valve No. 2 Lower Reel and Valve No. 3 Upper reel.	
5		Control Panel Assembly	
Tank Unit			
6		Suction Hose Assembly	
7		Blender Hose	
Water Heater			
8		Tank Drain Valve	
9		Water Heater	
10		Control Box assembly	
11		Fuel Hoses	
12		Water Hoses	
13		Low Pressure Boiler assembly	

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APPENDIX F
HAZARD ANALYSIS

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	HS	HP	RAC
All Operations	Heat/Cold Stress Donning PCE	Death or permanent total disability.	Personnel not screened, or monitored for Heat/Cold Stress IAW with PCD's Heat/Cold Stress Regulation, resulting in a potential heat/cold casualty while wearing/working in chemical protective ensembles.	I	D	High 2	Prior to donning TAP gear, CPC, chemical protective ensembles, all personnel will be medically cleared by the IMA. In addition, prior to donning said equipment, personnel shall be medically screened and monitored IAW PCD-R 385-507. All personnel involved with or who may be required to wear these protective items will receive Heat/Cold Stress training on an annual basis. Supervisors and employees shall adhere to the responsibilities contained in PCD-R 385-507 on a continuous basis. Anytime a person exhibits severe symptoms of heat-related illnesses, he/she will be immediately cut out of their PCE and processed expeditiously to the medical facility for treatment.	I	E	Med 3 De minimis		
	Heat/Cold Stress Doffing PCE	Death or permanent total disability.	At the conclusion of chemical operations, where the work required the use of TAP gear, CPC or chemical protective ensembles in heat	I	D	High 2	Concluding chemical operations where workers wear TAP gear, CPC, chemical protective ensembles in a defined heat/cold stress environment, require mandatory post medically screening IAW PCD-R 385-507.	I	E	Med 3 De minimis		

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
	Slips/Trips/Falls	Permanent partial disability, temporary total disability exceeding three months time.	stress environments, post medical screening is not performed resulting in the inability to recognize personnel with potential heat/cold stress symptoms.	II	D	Med 3	All personnel involved with or who may be required to wear these protective items will receive Heat/Cold Stress training on an annual basis. Supervisors, employees and medical support personnel shall adhere to the responsibilities contained in PCD-R 385-507 on a continuous basis.	II	E	Low 4		

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
	Lifting	Permanent partial disability, temporary total disability exceeding three months time.	Improper lifting techniques. Lifting over 45 lbs. without the use of the "Buddy System" or mechanical lifting device. Back injury, struck by, crushing injury to hands legs and feet.	II	D	Med 3	Use proper lifting techniques at all times, do not lift over 45 lbs. without a lifting device or the use of the "Buddy System." All personnel engaged in material handling will wear steel-toed footwear.	II	E	Low 4		
	Ergonomics strain	Permanent partial disability, temporary total disability exceeding three months time.	Poor work center design resulting in ergonomic stress and strain on the work force.	II	D	Med 3	Perform ergonomics assessment of the work center. Educate work force on ergonomics awareness training. Conduct periodic work site reviews, assessments.	II	E	Low 4		
	Industrial Chemical Exposure, Injury, Illness and or Burns (Not HT or HD)	One or more injuries or illnesses resulting in less than three months lost time.	Improper storage and use of chemicals resulting in chemical dermal burns, chemical burns to eyes or face, and secondary ingestion due to poor hygiene practices.	III	C	Med 3	Comply with PCD-R 385-16, Hazard Communication Program. Operator will read and adhere to the SDS(s) prior to using chemical. Ensure that recommended precautions and PCE are applied. Chemicals, when not in use will be stored in the appropriate storage cabinet. Eye wash stations will be immediately assessable at all location where hazardous chemical are stored and/or used.	II	D	Low 4		

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
		One or more injuries or illnesses resulting in less than three months lost time.	Improper use of CPC or PPE/PCE while conducting pre-operating checks, and or operating CAIRA equipment items during emergency response duties which may result in chemical dermal burns, or chemical burns to eyes or face.	III	C	Med 3	Ensure safety glasses, goggles and or face shields are readily available and used by personnel working with chemical products. Eye wash stations will be immediately assessable at all location where hazardous chemical are stored and/or used. Ensure proper level of CPC is used when performing pre-operational checks and operation of the M12A1.	III	D	Low 4		
	Hazardous Material Handling (Compressed Air Cylinders, Falling Objects, Flying Projectiles)	One or more injuries or illnesses resulting in less than three months lost time.	Dropping cylinders resulting in; Struck by, crushing injury to hands legs and feet.	III	C	Med 3	All personnel engaged in material handling will wear safety shoes. Personnel will wear safety shoes prior to donning SCBA.. Proper lifting techniques at all times, not lift over 45 lbs. without a lifting device or the use of the "Buddy System". Ergonomics training. work place layout review. Use of PPE.	III	D	Low 4		

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
		Permanent partial disability, temporary total disability exceeding three months time.		II	D	Med 3			Proper lifting techniques at all times, not lift over 45 lbs. without a lifting device or the use of the "Buddy System" / Ergonomics training, work place layout review. Use of positioning devices, and/or table ledges to ensure cylinders do not roll off table.	II	E	Low 4
		One or more injuries or illnesses resulting in less than three months lost time.	Improper use of compressed air resulting in bodily injuries due to uncontrolled release of compressed air.	III	C	Med 3		Train personnel in hazards associated with working with compressed air. Ensure that proper PPE is used. Compressed air used for cleaning shall not exceed a pressure of 30 psi. Compressed air shall not be used to clean employees.	III	D	Low 4	
	Noise	One or more injuries or illnesses resulting in less than three months lost time.	Working with or around air compressors, 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, Respiratory Protection Equipment.	III	D	Low 4	

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
	Lightning	Death or permanent total disability.	Personnel working outdoors during lightning storms, resulting lightning strikes injuring or killing personnel.	I	D	High 2	I	E	Med 3			De minimis
	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	I	E	Med 3			De minimis
		Death or permanent total disability.	Reckless driving, speeding causing loss of vehicle control (crash) injuring operator and/or passengers.	I	D	High 2	I	E	Med 3			De minimis

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
		Death or permanent total disability.	Vehicle striking wild life (crash) crossing/on PCDD roadways in route to and from ammunition storage sites.	I	D	High 2	Be vigilante for PCDD 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		
	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 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.	I	E	Med 3 De minimis		

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
Operation #1 Pre-Operation Procedures for Accident/Incident Response Team	Un-serviceable CPC/PCE.	Permanent partial disability, temporary total disability in excess of three months.	Use of CPC/PCE that is worn, damaged or un-serviceable resulting in personnel exposure to toxic agents/chemicals.	II	D	3 Med	Individuals will inspect their personal CPC or PCE for damage or defects at prior to use during CAIRA operations. Un- serviceable items identified will be immediately returned to the issue point.	II	E	4 Low		
Operations #2 Operation of M12A1 Decontamination Unit	Fire, generation of toxins, by- products of combustion	Death or permanent total disability.	Improper inspection and use of SCBA system resulting in potential oxygen deprivation to user during CAIRA operations.	I	D	2 High	All personnel using SCBA units will receive documented personal respiratory protection training as mandated by OSHA prior to use in CAIRA operations. Users will draw their SCBA unit, inspect, and pre-test all user function elements of the breathing apparatus IAW manufacturer's guidance.	I	E	Med 3 De minimis		
		Permanent partial disability, temporary total disability in excess of three months.	Handling of High Test Hypochlorite (HTH) and Fuel. Allowing incompatible hazardous materials (HTH-strong oxidizer and diesel fuel) to come in contact with each other.	II	D	3 Med	Review SDS for all hazardous materials in use to prevent hazardous conditions and learn how to react to hazardous situations. Segregate all incompatible hazardous material to prevent contact with each other. Operators will be trained IAW Operator's Manual TM-3- 4230-237-10 prior to servicing or operating the M12A1.	II	E	4 Low		

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
	Fueling M12AI (Chemical Splash Burns)	One or more injuries or illnesses resulting in less than three months lost time.	Refueling, M12AI, fuel splashes onto personnel causing eye or dermal injuries.	III	D	4 Low	Personnel will use eye and face protection during fueling operations of the M12AI. Position emergency eye/face wash stations in areas where fueling operations take place. Siphoning of fuel from vehicles is strictly prohibited. Operators will be trained IAW Operator's Manual TM-3-4230-237-10 prior to servicing or operating the M12AI.	III	E	5 Low		
	Fueling M12AI (Fire)	Permanent partial disability, temporary total disability in excess of three months.	Open flame, sparks, heated items (cigarette) igniting fuel vapor causing fire and explosion burning or injuring personnel.	II	D	Med 3	No smoking, open flame, spark or heat producing items is allowed within 50 feet of refueling operations. Siphoning of fuel from vehicles is strictly prohibited. Operators will be trained IAW Operator's Manual TM-3-4230-237-10 prior to servicing or operating the M12AI.	II	E	Low 4		
	Electrical Shock	Permanent partial disability, temporary total disability in excess of three months.	Heater receptacle switch in the on position when the water heater is not in use resulting in electrical shock or injury.	II	D	Med 3	Ensure that the heater receptacle switch is in the off positions when the water heater is not in use. Operators will be trained IAW Operator's Manual TM-3-4230-237-10 prior to servicing or operating the M12AI.	II	E	Low 4		

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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	HS	HP	RAC
	Exposure to HTH	One or more injuries or illnesses resulting in less than three months lost time.	Mixing of high-test hypochlorite (HTH). Failure to wear personal Protective Clothing and Equipment (PCE). Lack of training. Not following appropriate handling of HTH.	III	C	3 Med	Personnel handling HTH must wear minimum of Level C1 protective clothing when mixing slurry or handling HTH. Follow proper mixing procedures. Operators will be trained IAW Operator's Manual TM-3-4230- 237-10 prior to servicing or operating the M12A1.	III	D	4 Low		
	Thermal Burns	One or more injuries or illnesses resulting in less than three months lost time.	Inadvertent release of hot water/steam while setting up and operating the M12A1 causing thermal burns to operator/personnel.	III	C	Med 3	When disconnecting hoses exercise extreme caution to prevent scalding. Use protective eyewear, face shield, gloves. Personnel setting up and/or operating the M12A1 Decontamination Unit be thoroughly trained with the pre- operational setup, operation, and associated hazards thereof as noted within Operator's Manual TM 3-4230-237-10.	III	D	Low 4		
	Release of Stored Energy (Steam from heating tank, valves & hoses)	Death or permanent total disability.	Performing work or servicing activities in dangerous zones where there is a hazard associated with automated machine cycling, causing bodily injury to operator.	I	D	Med 3	Personnel setting up and/or operating the M12A1 Decontamination Unit be thoroughly trained with the pre- operational setup, operation, and associated hazards thereof as noted within Operator's Manual TM 3-4230-237-10.	I	E	Med 3 De minimis		

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
	Rotating Parts	Permanent partial disability, temporary total disability in excess of three months.	Performing work or servicing activities in dangerous zones where (pump drive belt) there are unguarded rotating parts, which may come in contact with hands, clothing, equipment causing bodily injury to operator.	II	D	Med 3	Personnel setting up and/or operating the M12A1 Decontamination Unit be thoroughly trained with the pre-operational setup, operation, and associated hazards thereof as noted within T Operator's Manual M 3-4230-237-10.	II	E	Low 5		
	Electrical Shock	Permanent partial disability, temporary total disability exceeding three months time.	Conducting maintenance air compressor electrical system without shutting off power. Using electrical equipment that has damaged electrical components.	II	D	Med 3	Personnel setting up and/or operating the M12A1 Decontamination Unit be thoroughly trained with the pre-operational setup, operation, and associated hazards thereof as noted within Operator's Manual TM 3-4230-237-10.	II	E	Low 4		
	Toxic Gases (Carbon Monoxide (CO))	Permanent partial disability, temporary total disability in excess of three months.	Exhaust emissions (carbon monoxide) generated from the M12A1 water heat in an enclosed area, or personnel working too close to the exhaust stack during operations. M40A1 does not protect against CO.	II	D	Med 3	Ensure M12A1 is properly vented during operations of the pump unit assembly so as not to endanger personnel from CO contaminants. Ensure personnel keep clear of the exhaust stack during operations of the water heater. Operators will be trained LAW Operator's Manual TM-3-4230-237-10 prior to servicing or operating the M12A1.	II	E	Low 4		

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
Operations #3 Emergency Response	Emergency response personnel entering CAIRA accident site.	Permanent partial disability, temporary total disability in excess of three months.	Emergency response teams/personnel entering the accident site where explosion of munitions has taken place. Unexploded munitions at the accident site.	II	D	Med 3	In the event an explosion has occurred, entry by CAIRA response personnel will be restricted until the site has been assessed by EOD and deemed safe for emergency response teams to enter the area.	II	E	Low 4		
	Falls	Permanent partial disability, temporary total disability in excess of three months.	Decon personnel slip and fall while climbing on to and out of the M12A1 resulting in fall injuries.	II	D	Med 3	Use extreme caution when climbing into and out the M12A1, use detachable/retractable stairs at all times. Use buddy aid and assist each other when ever accessing or climbing down from the back of the M12A1. Use hand rail and maintain three points of contact.	II	E	Low 4		
		Permanent partial disability, temporary total disability in excess of three months.	Decon personnel riding in the back of the M12A1 (going to and from the CAI) fall from fall from truck resulting in severe injuries.	II	D	Med 3	Prior to movement of the M12A1, (going to and from the CAI) the M12A1 driver shall ensure that the "Troop Strap" is in place if vehicle is equipped with a "Troop Strap", and that the decon team members properly braced (three points of contact) for the movement of the M12A1. In addition, all decon personnel who ride in the back of the M12A1, during CAI operations will be thoroughly briefed in the fall hazards associated with M12A1 movement.	II	E	Low 4		

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
	Falls from back of M12A1	One or more injuries or illnesses resulting in less than three months lost time.	Vehicle driver loses control. Individual(s) riding in the back of the M12A1 and/or operating decon apparatus losing balance while spraying area when truck is moving falling off the M12A1.	II	D	Med 3	Exercise caution while driving the M12A1 while personnel are riding or operating the decontamination apparatus during CAIRA or emergency response activities. Stay on improved road if possible. If driving off road, use caution. Ensure "Troop Strap" is in place if vehicle is equipped with a "Troop Strap".	II	E	Low 4		
	Existence of Blind Spot While Driver is Operating	Death or permanent total disability.	Loss of control due to SCBA mounted on driver's back thereby impairing proper operation of the vehicle.	I	D	High 2	Modify seat to accommodate driver wearing SCBA Tank. Decon Team Captain will coordinate with OC and determine the drivers lowest level of PPE.	I	E	Med 3 De minimis		
	Struck by Vehicle	Death or permanent total disability.	M12A1 and trailer not properly chocked & blocked resulting in possible roll-a-way of vehicle or trailer during servicing or loading equipment items, injuring personnel.	I	D	High 2	Prior to servicing M12A1 or loading equipment items onto trailer, ensure that the break is set, wheels are chocked & blocked, and trailer support brackets are down and in a locked position.	I	E	Med 3 De minimis		
Operation #4 Team Assembly & Plan Execution	Industrial Chemical Exposure, Injury, Illness and or Burns (Not HT or HD)	One or more injuries or illnesses resulting in less than three months lost time.	Moving, transporting and pouring bleach into MPDS holding tank causing chemical burns to eyes, face, and hands.	III	C	Med 3	Personnel who stage, move, or pour bleach into MPDS holding tank will use eye, face, and hand protection (butyl gloves, M3/M4). Ensure that the holding tank is 1/2 full with water prior to adding	III	D	Low 4		

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
Operation #5 Positioning of MPDS	Struck By (Loading and Movement of MPDS Trailer)	Death or permanent total disability.	Attaching/movement of MPDS trailer to the towing vehicle causing bodily injury, or striking nearby personnel, equipment, or vehicles.	I	D	High 2	liquid bleach to the tank. A ground guide will be use during the attachment of the MPDS to the towing vehicle to facilitate the safe movement and stage of the vehicle and/or trailer. The MPDS will be hitched to the towing vehicle only by authorized CDL operators training in MPDS hitching/loading procedures.	I	E	Med 3 De minimis		
	Pinch Points (Loading and Movement of MPDS Trailer)	Permanent partial disability, temporary total disability in excess of three months.	Attaching MPDS to towing vehicle, locking king-pin trapping hands or fingers between king- pin and support plate.	II	D	Med 3	The MPDS will be hitched to the towing vehicle only by authorized CDL operators training in MPDS hitching/loading procedures.	II	E	Low 4		
	Trailer Collapse (Loading and Movement of MPDS Trailer)	Death or permanent total disability.	Improper attachment of MPDS trailer king- pin and locking devices of towing vehicle, causing MPDS to collapse or fall during transportation, movement.	I	D	High 2	The MPDS will be hitched to the towing vehicle only by authorized CDL operators training in MPDS hitching/loading procedures. Prior to movement of the MPDS trailer the operator shall verify that the king-pin is fully seated and secure. Verify that all connections are hooked and landing gear retracted.	I	E	Med 3 De minimis		

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
	Struck By (Loading and Movement of MPDS Trailer)	Death or permanent total disability		I	D	High 2				I	E	Med 3 De minimis
	Industrial Chemical Exposure, Injury, Illness and or Burns (Not HT or HD)	One or more injuries or illnesses resulting in less than three months lost time.	Moving, transporting and pouring bleach into step pan causing chemical splash burns to eyes, face, and hands.	III	C	Med 3				III	D	Low 4
	Exposure to HD/HT vapors	Permanent partial disability, temporary total disability in excess of three months.	MPDS crew accessing, setting up the MPDS trailer in a contaminated area resulting in personnel exposed to unknown concentrations of HD/HT.	II	D	Med 3				II	E	Low 4
Operation #6 Operational Start- Up of MPDS	Cuts, lacerations to hands.	One or more injuries or illnesses resulting in less than three months lost time.	Removing metal panels, metal chutes with sharp edges causing cuts, lacerations to hands.	III	C	Med 3				III	D	Low 4

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
	Pinch Points	One or more injuries or illnesses resulting in less than three months lost time.	Hands and fingers trapped between pinch points while assembling stairs and platform.	III	C	Med 3	Use leather gloves and exercise caution when handling and assembling MPDS stairs and platform.	III	D	Low 4		
	Falls	Permanent partial disability, temporary total disability in excess of three months.	Falls from unsecured MPDS stairs/platform, or accessing stairs/platform that does not have side or hand rails attached.	II	D	Med 3	Ensure that all assemble points of stairs, platform, side and hand rails are securely in place prior to personnel accessing stairs/platform.	II	E	Low 4		
	Electrical Shock	Death or permanent total disability.	MPDS grounding system not engaged leading to potential electrical shock during startup and running of MPDS generator.	I	D	High 2	Prior to starting and running of the MPDS generator, ensure that the ground rod and relay cable are properly engaged.	I	E	Med 3 De minimis		
	Impalement	Permanent partial disability, temporary total disability in excess of three months.	Grounding rod is a potential impalement hazard should workers slip, trip or fall onto it causing severe injury.	II	D	Med 3	Ensure grounding rod is away from traffic areas. Place a traffic cone over the rod to prevent injury due to slips, trips or falls that could result in blunt, penetrating injuries.	II	E	Low 4		

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
	Fire/Explosion (Propane Gas Leak)	Death or permanent total disability.	Propane tank, lines or regulator damage causing gas leak with potential for toxic atmosphere, fire and or explosion.	I	D	High 2	Perform required maintenance and inspection of propane cylinders per operations manual. Ensure all cylinder values are in the closed position during storage and when not in use. Train MPDS personnel in hazardous material handling. If propane gas is detected by smell upon opening trailer door, leave immediately (leave door open), evacuation all personnel up wind approximately 100 meters and call the fire department. The fire department will conduct atmospheric testing before continuing.	I	E	Med 3 De minimis		
	Thermal Burns	One or more injuries or illnesses resulting in less than three months lost time.	Not testing MPDS hot water system prior to operations resulting in scalding or severe burns to hands or face.	III	C	Med 3	When checking MPDS hot water system, use extreme caution. Verify that temperature in the same manner in which one would adjust the water temperature when showering at home.	III	D	Low 4		
	Toxic Gases (CO)	Permanent partial disability, temporary total disability in excess of three months.	Exhaust emissions (carbon monoxide) generated by MPDS generator/propane system vent/leak into the enclosed areas MPDS trailer causing potential CO poisoning of personnel.	II	D	Med 3	Ensure that proper maintenance of the MPDS is completed as required by the TM. Proper biannual testing of the ventilation system. Ensure that the MPDS onboard CO detector has been calibrated per the TM and is fully functional prior to CAI operations.	II	E	Low 5		

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
	Exposure to HD/HT vapors	Permanent partial disability, temporary total disability in excess of three months.	Filter unit ventilation system fails or is improperly activated resulting in potential agent exposure to MPDS personnel and those personnel requiring MPDS decontamination.	II	D	Med 3	Ensure that all preventive maintenance/testing requirements for the MPDS filter system are up to date. Ensure that personnel activating and adjusting the filter system are fully trained IAW the TM. Prior to activations of MPDS ensure that air monitoring is being completed per PCD's Site Specific Monitoring Plan and CAIRA Plan.	II	E	Low 4		
Operation #7 & Operation #9 Processing Personnel in OHSA Level A & B	Exposure to HD/HT vapors	Permanent partial disability, temporary total disability in excess of three months.	Personnel processing through the MPDS have to switch to ambient air due to very low air supply.	II	D	Med 3	Ensure that backup supply of full compress air cylinders are staged for immediate use if required. Ensure that the proper connection fitting for those in Level B are on hand. When CAI emergency response personnel arrive at the MPDS, wearing level A & B connect the spare air bottle to the system and assess the individual's remaining air, prioritizing those individuals whose air supply is lowest.	II	E	Low 4		
	Hazardous Material Handling (Compressed Air cylinders)	Permanent partial disability, temporary total disability in excess of three months.	While handling, removing compressed air bottles, the cylinder is dropped damaging the valve assembly which may result in injuries.	II	D	Med 3	Train personnel in hazards associated with working with compressed air. When removing and placing cylinders in chute, use caution so as not to damage valve assembly.	II	E	Low 4		

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
Operation #10 Shut Down Procedures	Exposure to HD/HT vapors	Permanent partial disability, temporary total disability in excess of three months.	Contamination from chemical protective clothing & equipment of personnel processing through the MPDS.	II	D	Med 3	Ensure all MPDS personnel are fully trained in MPDS operations, stations functions, decontamination procedures, and processing procedures during CAI operations and segregation of potentially contaminated chemical protective clothing and equipment per the SOP. During shut down procedures, ensure that all use chemical protective clothing & equipment is properly bagged, sealed and monitored prior to being processed by the Protective Clothing Section for reuse.	II	E	Low 4		
Operation #11 Donning and Doffing of Level A	Wearing Encapsulated PCE	Death or permanent total disability.	<i>Asphyxiation</i> – Failure to manage SCBA respiratory systems resulting in operator running out of breathable air	I	D	2 High	Ensure sign out sheet is present and the suit has a current inspection date. Operator will review and sign sheet prior to donning suit. Wearer will perform an audio-visual alarm test of the SCBA respiratory system prior to use. Initial training will be conducted with annual refreshers.	I	E	3 Med De minimis		
		Death or permanent total disability.	<i>Asphyxiation</i> – Failure to connect internal hose (bypass hose), if applicable, resulting in the inability to supply breathable air if main SCBA cylinder is depleted.	I	D	2 High	When donning, ensure internal hose (bypass hose), if applicable, is properly connected.	I	E	3 Med De minimis		

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				HS	HP	RAC	HS	HP	RAC	HS	HP	RAC
Operation #11 & 12 Donning and Doffing of Level A & B		Death or permanent total disability.	<i>Heat Stress</i> - Repeated entry or extended use of Level A resulting in insufficient recuperation time for personnel exposed to heat strain environments.	I	D	2 High	Follow all guidance as outlined in PCD-R 385-507 Heat/Cold Stress Prevention Program. All personnel subjected to heat stress (wearing Level A or B) environments will be given sufficient recuperation time between operations to avoid heat stress illnesses. Ensure adequate rest and fluid replacement is provided.	I	E	3 Med De minimis		
	Depleted SCBA Cylinder	Death or permanent total disability.	<i>Asphyxiation</i> - Failure to respond to SCBA respiratory system audible alarm (low air indicator) resulting in operator running out of breathable air.	I	D	2 High	Leave area immediately when alarm whistle sounds. Back up, fully charged cylinders will be on hand during all operations involving use of PCE Level A and/or B. Operator will be properly trained.	I	E	3 Med De minimis		
Operation #11 & 12 Donning and Doffing of Level A & B	Doffing Level A & Level B (Contaminated PCE)	Permanent partial disability, temporary total disability exceeding three months time.	<i>Exposure to HD/HT Off Gassing or Liquid agent</i> - Improper procedures processing through decontamination stations. Contamination due to improper handling procedures of suspected contaminated PCE.	II	D	3 Med	The Assistant (down dresser), wearing Level C1 will keep hands away from the inside of the suit to avoid possible contamination to wearer. The wearer will not touch the outside of the suit during doffing. The assistant will ensure the suit is folded outward and away from the user's body. Station C attendant will request an all clear confirmation from MPDS Control Room prior to opening door.	II	E	4 Low		

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

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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 4.2.2-1: List of Available Equipment for use by the Installation Response Team

APPENDICES

Appendix A: Spill Report Forms

Appendix B: Reportable Quantities

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

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

NOTES:

⁽¹⁾ Commercial Area Code is (719) 549, which corresponds to DSN 749

⁽²⁾ 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 th 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 ^a	Location ^b
CHEMICAL OPERATIONS			
RTAP	Air Monitoring	9	BLDGs 593/129Z & 85 LAMS
MINICAMS [®]	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
DEPARTMENT OF PUBLIC WORKS			
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 ^a	Location ^b
FIRE DEPARTMENT			
HAZMAT Response Trailer/Fire and Emergency Services	Contains 1 Overpack Drum, 1 55-gallon drum, 8 multi-threat suits, 2 TYVEX [®] 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 ^a	Location ^b
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:

^a 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.

^b 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 ft² 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 (ft²) _____

Medium Size (ft²) _____

Minor Size (ft²) _____

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): _____

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

Assistance Required: Yes No

If Yes, identify assistance: _____

Remedial Action Taken: Yes No

If Yes, identify action: _____

If No, estimate the date of completion: _____

Pollution Incident Report
(Page 3 of 3)

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

Anticipated or Actual Reaction by Media or Public to the Incident: _____

Other Information: _____

* 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-Dichloropropene (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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