

# **Appendix G**

## ***Emergency Preparedness Recommendations***

**Rocky Mountain Arsenal Medical Monitoring Program  
Emergency Preparedness Recommendation**

|   |     |
|---|-----|
| <b><u>TABLE OF CONTENTS</u></b> .....   | i   |
| CONTRIBUTING AUTHORS .....  | ii  |
| ACRONYMS & ABBREVIATIONS .....  | iii |
| 1.0 INTRODUCTION .....  | 1   |
| 2.0 MISSION .....   | 1   |
| 3.0 GROUP PROCESS .....   | 1   |
| 4.0 GROUP RECOMMENDATIONS .....   | 2   |
| 4.1 Community Awareness .....   | 2   |
| 4.2 Safety .....  | 2   |
| 4.3 Notification .....  | 3   |
| 4.4 Communities .....   | 4   |
| 4.5 Training .....  | 5   |
| 5.0 CONCLUSIONS .....   | 6   |
| 6.0 FINDINGS .....  | 6   |
| 6.1 Adams County Contingency Plan .....   | 6   |
| 6.2 Colorado Department of Public Health and Environment's Emergency<br>Management Unit ..... | 7   |
| 6.3 Rocky Mountain Arsenal Contingency Plan .....   | 9   |
| 6.4 Denver Emergency Preparedness Plan .....  | 10  |
| 6.5 Office of Emergency Management, Operations and Chemical Stockpiles .....                  | 11  |
| 6.6 Adams County Communications Center .....  | 12  |
| 6.7 Rocky Mountain Arsenal Communications Center .....  | 13  |
| 6.8 Denver International Airport .....  | 14  |
| 7.0 ATTACHMENTS   |     |
| Attachment 1: Glossary  |     |
| Attachment 2: Adams County Warning Notification Fanout List                                   |     |
| Attachment 3: Denver Mets Subscriber List   |     |
| Attachment 4: Mutual Aid Explanations   |     |
| Attachment 5: ATSDR Reference List  |     |
| Attachment 6: RMA Central Communications 'Help is at Hand'                                    |     |
| Attachment 7: Emergency Planning and Community Right-to-Know Act (EPCRA)                      |     |
| Attachment 8: Acknowledgments   |     |

## CONTRIBUTING AUTHORS

Beth Gallegos (Commerce City resident, *MMAG member*)  
Tim Kilgannon (Remediation Venture Office, Special Projects Manager, *MMAG member*)  
Larry Kimmel (Environmental Protection Agency, Region VIII, *MMAG member*)  
Holly Mangers (Colorado Department of Public Health and Environment, *MMAG Coordinator*)  
Chris Poulet (Agency for Toxic Substances and Disease Registry Region VIII)  
Ken Proper (Remediation Venture Office, Health and Safety Group for the Rocky Mountain Arsenal)  
Roland Russell (Work group Chair, Commerce City resident, *MMAG member*)  
John Student ( Co-Chair, Denver Department of Environmental Health, Environmental Protection Section, *MMAG member*)  
Glenn Tucker (Agency for Toxic Substances and Disease Registry Region VIII),  
Susan Ulrich (Tri-County Health Department, presently with Research Management Consultants, Inc.)

## ACRONYMS & ABBREVIATIONS

|             |  |
|-------------|--|
| ACOEP ..... | Adams County Office of Emergency Preparedness      |
| ADCOM.....  | Adams County Communications Center                 |
| ATSDR.....  | Agency for Toxic Substances and Disease Registry   |
| CAMEO.....  | Computer Aided Management of Emergency Operations  |
| CDPHE.....  | Colorado Department of Public Health & Environment |
| C.F.R.....  | Code of Federal Regulations                        |
| CLEER.....  | Colorado Law Enforcement Emergency Radio           |
| COC.....    | Chemicals of Concern                               |
| COEM.....   | Colorado Office of Emergency Management            |
| C.R.S.....  | Colorado Revised Statutes                          |
| CSEPP.....  | Chemical Stockpile Emergency Preparedness Program  |
| DIA.....    | Denver International Airport                       |
| FEMA.....   | Federal Emergency Management Agency                |
| FERN.....   | Fire Emergency Response Network                    |
| LEPC.....   | Local Emergency Planning Commission                |
| METS.....   | Metropolitan Emergency Telephone System            |
| MSDS.....   | Material Data Safety Sheets                        |
| MMAG.....   | Medical Monitoring Advisory Group                  |
| OEM.....    | Office of Emergency Management                     |
| PIE.....    | Public Involvement and Education Work Group        |
| ROD.....    | Record of Decision                                 |
| RMA.....    | Rocky Mountain Arsenal                             |
| RMCI.....   | Research Management Consultants Incorporated       |
| RMPDC.....  | Rocky Mountain Poison and Drug Center              |
| RVO.....    | Remediation Venture Office                         |
| TCL.....    | Telecommunications Incorporated                    |
| UXO.....    | Unexploded Ordnance                                |

## 1.0 **INTRODUCTION:**

The recommendations of the MMAG Emergency Preparedness subgroup are provided with the intent of assuring efficient and effective emergency response capabilities to the surrounding communities during remediation of the Rocky Mountain Arsenal. The recommendations (Section 4.0) and conclusions (Section 5.0) are based on part of the group's evaluation of various emergency response and contingency plans and interviews of key responders to potential emergency response situations related to RMA.<sup>1</sup>

The recommendations made by this group may initiate costs to implement the recommendations. Not all of the recommendation costs will be the responsibility of the Remediation Venture Office (RVO). All recommendations should be forwarded to the various affected groups/entities so all noted deficiencies may be addressed.

The attachments are provided for clarification of various references used by the group in developing its final recommendations. The appendixes include a glossary of terms in the text and related definitions, a warning notification fan-out list and an emergency telephone subscriber list.

## 2.0 **MISSION:**

Review existing emergency preparedness plans for the Rocky Mountain Arsenal (RMA) and surrounding communities to ensure continuity and identify necessary processes that will provide community awareness, safety and notification during remediation activities.

## 3.0 **GROUP PROCESS:**

In anticipation of planned remediation activities at RMA, the Emergency Preparedness work group of the Medical Monitoring Advisory Group (MMAG) was formed to evaluate the effectiveness of emergency response plans in protecting RMA neighboring communities during the remediation process. The group focused on the processes by which agencies coordinate with one another in the event of an emergency at the Rocky Mountain Arsenal. The work group, including local citizens, identified plausible emergency scenarios at the RMA, such as: fire, on or off post chemical spills, transportation-related spills, Unexploded Ordnance (UXO), release of chemical warfare materials and/or airplane accident on the RMA. The group focused on these scenarios because they have potential to affect the surrounding communities. *See Attachment 1 for definition of surrounding communities.*

The group's concerns transformed into further research regarding the communication process that occurs between different agencies, as well as, timeliness of the notification. The

---

<sup>1</sup> Though, all members evaluated response and contingency plans and interviewed key responders, all members are not in full agreement with the recommendations and/or the findings.

group divided this process into three different tasks: 1) reviewing contingency plans for surrounding communities and the Rocky Mountain Arsenal, 2) inviting emergency preparedness managers from surrounding communities to discuss their plans and answer questions, and 3) preparing recommendations based upon findings.

#### 4.0 **GROUP RECOMMENDATIONS:**

The following recommendations for entities involved in the emergency notification and action process. These recommendations, if executed, may complement the RMA's emergency response procedures and improve the educational processes within the surrounding communities regarding RMA- related potential emergencies. *These recommendations will be submitted to the MMAG first for final comment. Subsequently, the MMAG will present all of its recommendations from the workgroups to the Colorado Department of Public Health and Environment (CDPHE) to be incorporated into a Medical Monitoring Program.* These recommendations represent the Emergency Preparedness work group's concerns and suggestions were arrived at during the course of interviews with local emergency responders.

#### 4.1 **Community Awareness**

4.1.1 The group recommends the following in regards to community awareness:

- 4.1.1(a) The Public Involvement and Education Group (PIE) of the MMAG should assess the creation of an information package for the potentially affected communities which incorporates suggestions from all of the MMAG work groups.
- 4.1.1(b) The PIE in coordination with Tri-County Health Department should provide an information phone number with multiple lines and bilingual capabilities for the surrounding communities to review all ongoing RMA remediation activities.
- 4.1.1(c) All local area hospitals and Rocky Mountain Poison and Drug Center (RMPDC) should be educated and informed of the RMA chemicals of concern (COC's) via the Baseline Health Professional's Education Program.
- 4.1.1(d) A citizen's advisory board (CAB) should be formed after the MMAG's dissolution to ensure proper implementation of the MMAG's recommendations. In this respect, the CAB should possess some decision-making authority and should be provided sufficient resources to ensure its existence.

#### 4.2 **Safety**

4.2.2 The Group recommends the following with regard to Safety issues:

- 4.2.2(a) The Remediation Venture Office (RVO) should place the safety of the communities surrounding the RMA, its workers and visitors at paramount importance throughout the remediation of the RMA. The RVO should establish and maintain strong, proactive safety policies and procedures. This is consistent with goals of the Emergency Planning and Community Right-to-Know Act (EPCRA). *See Attachment 7 for the EPCRA reference.* This act was created to facilitate and promote planning for chemical emergencies at the state and local levels, and to provide information to the public about the chemicals used, stored, and released in their communities. More specific recommendations follow.
- 4.2.2(b) The RVO should ensure that site-specific safety plans are developed and implemented to cover visitors and RMA employees during the RMA remediation.
- 4.2.2(c) The RVO should periodically test emergency notification systems to ensure that visitors, RMA employees and contractors understand their use, meaning and response procedures.
- 4.2.2(d) The RVO should form a current mutual or automatic aid agreement to include DIA and Denver County.
- 4.2.2(e) The RVO and DIA should finalize the current Memorandum of Understanding which includes mutual aid, including but not limited to, crashes, fires and hazardous materials incidents.
- 4.2.2(f) The RVO should provide DIA with emergency response transportation routes from the RMA out to 5 miles surrounding the RMA. These routes should be added to all response maps.
- 4.2.2(g) DIA should incorporate a hazardous materials response team to their currently existing emergency response personnel.
- 4.2.2(h) The fire departments listed under Attachment 4, Mutual Aid, should have the same definition and understanding of “automatic aid”.

### 4.3 Notification

4.3.3 The group recommends the following in regards to notification:

- 4.3.3(a) The RVO should establish a communication system that notifies emergency response personnel onpost and offpost. This system should incorporate radios,

cellular phones, analog and/or alphanumeric pagers.

In addition, if a specified area is scheduled to be remediated and has a potential for a release, the RVO should give, at least, a 24 hour notice to local emergency response entities in order that they may enact emergency standby procedures. They should also establish continuous coordination among various emergency response entities.

- 4.3.3(b) To ensure consistency in the notification process between counties, ADCOM should also be placed on the MET system. This process will take approximately one month to connect with a \$300 hook up fee and a \$25.00 monthly charge. *See Attachment 3 for the METS subscriber list.*
- 4.3.3(c) The RMA should have a written mutual aid agreement with Denver Fire Department.
- 4.3.3(d) The South Adams County Fire District should create an automatic aid agreement with the RMA to ensure immediate and adequate emergency response coverage.
- 4.3.3(e) The Adams County Communications Center (ADCOM) should have highly trained personnel to determine whether situations require the notification of organizations for emergency response situations.

#### **4.4 Communities**

4.4.4 This group recommends the following in regards to community notification and involvement.

- 4.4.4(a) The City and County of Denver and Adams County should routinely educate their residents on the meanings of various sirens, including dates and times of testing, and on the evacuation procedures and general emergencies.
- 4.4.4(b) Interested groups, including, but not limited to, area schools should have the opportunity to be represented on the Local Emergency Planning Commission.
- 4.4.4(c) There should be bi-annual discussions among interested groups, including, but not limited to, area schools regarding events occurring at the Arsenal.
- 4.4.4(d) Adams County should have TCI television cable interrupt capabilities as does Denver in order to communicate with their citizens during an emergency.
- 4.4.4(e) The RMA surrounding communities should be informed of all medical monitoring information in an open and objective manner.



- 4.4.4(f) As “state of the art” procedures and equipment become available, the emergency preparedness entities should incorporate those procedures and equipment into their process during remediation to ensure the highest level of public health and safety.

## 4.5 Training

- 4.5.5 This group recommends that the following is completed in regards to training for an emergency response situation.

- 4.5.5(a) The RVO should emphasize extensive training of contractors and employees regarding the execution of remediation projects on the Arsenal. This training should specifically address the following: (a) identifying hazards and their prevention, (b) identifying unexploded ordnance (UXO) and recovered chemical warfare materials and what to do if they are found, and (c) identifying how to deal with chemical spills, releases, and other emergencies. *See Attachment 1 for definitions of UXO and chemical warfare materials.*
- 4.5.5(b) To protect residents around the RMA, its workers and its visitors, the RVO should train their Dispatchers to use the Computer-Aided Management of Emergency Operations (CAMEO) system during actual emergencies and training exercises. Further, during emergencies CAMEO should be additionally used to decide whether chemical releases potentially endanger residents, workers and visitors. *Refer to section 6.7 and Attachment 1 for a more detailed explanation of CAMEO.*
- 4.5.5(c) The RVO should periodically conduct both full-scale and table top exercises to test and train their emergency response personnel. These exercises need to be planned to provide realistic exercises that the RVO and surrounding communities can monitor and evaluate in order to define the need for additional personnel training, equipment requirements and process weaknesses. However, there is a need to restrict the minimum number of personnel planning the exercise in order to ensure an unrehearsed and realistic response by personnel. *See Attachment 1 for the definition of full-scale and table top exercises.*
- 4.5.5(d) Local emergency response entities, including DIA, should periodically participate in RMA emergency response exercises. *See Attachment 1 for the definition of local entities.*
- 4.5.5(e) DIA should be included in ongoing training regarding 1) entrance to RMA, 2) special conditions that may exist on RMA in specific situations, and 3) aircraft scenarios.

- 4.5.5(f) The surrounding local authorities should be trained in order to properly respond to any hazardous materials emergency under the home rule state.

## 5.0 CONCLUSIONS:

This work group has conducted research and a review of emergency preparedness plans focusing on the communication and notification procedures among the emergency response entities surrounding the RMA. Based upon the information presented and information made available at the present time this work group has made the above recommendations after considering plausible emergency scenarios, the notification process, the timeliness of notification and the communication process that occurs between emergency response entities.

## 6.0 FINDINGS

### 6.1 Adams County Contingency Plan

First, the group reviewed the Adams County Contingency Plan. After the review period, our group met with Ms. Rosalie Dukart, Deputy Director, Adams County Office of Emergency Preparedness. Ms. Dukart is responsible for county interactions with internal and external agencies to coordinate and plan for emergencies. The group discussed findings regarding the notification process, efficiency and communication between Adams

County and other agencies. Those findings and Ms. Dukart's responses to the findings are summarized as follows:

- Adams County Emergency Operations Plan consists of two parts: the basic plan and functional & hazard specific annexes. The *Basic Plan* identifies overall responsibility of county department's functions for unincorporated Adams County and is followed by functional and hazard specific annexes addressing types of hazards unique to the county. The Hazard Specific annexes include: Flood; Tornado; Winter weather; Hazardous Substance Incident, and Emergency Medical.
- Ms. Dukart serves as the Chair of the Adams County Local Emergency Planning Committee (LEPC). The LEPC consists of business, industry, fire departments, police and medical personnel and the media. The LEPC meets monthly to discuss issues and make decisions about emergency planning.
- The relationship between Adams County Office of Emergency Preparedness and the Rocky Mountain Arsenal exists through the State Emergency Management Unit. Ms. Dukart observed that the State has assumed the responsibility of notifying local entities in the event of an emergency. *See Attachment 1 for definition of local entities.*
- Surrounding schools are notified under the heading of Emergency Operations and are

included in a flow diagram (warning fan-out list). *See Attachment 2 for flow diagram.*

- The Adams County Communications Center (ADCOM) is the 911 center for a large area of Adams County and dispatches for law enforcement agencies and fire departments for the following cities: Brighton, Commerce City, Northglenn, Thornton and the Adams County Sheriff's Department. The cities of Federal Heights and Westminster provide communications for their own respective communities. In Commerce City, the police department notifies the mayor, police chief, city manager, public works manager, South Adams County Water and Sanitation District, School District 14 and the Head Start Center. Each organization is notified if deemed necessary. The initial notification is made to ADCOM and they begin the call down tree.
- During the working hours of 8:00 am to 5:00 pm, Ms. Dukart notifies the Commerce City manager/mayor and county commissioners/county administrator. After hours, ADCOM provides the notification. Ms. Dukart believes that duplication of notification is not occurring between ACOEP and the Adams County Communications Center.
- Various communities/counties interact together during an emergency through the inter-governmental agreement between the fire departments in the area. If the Arsenal requested assistance for response to a situation, they can request a multi-county response through the Mutual Aid Agreement. All of the Adams County fire departments participate in the Mutual Aid Agreement, including Westminster and Broomfield. *See Attachment 4 for definitions of mutual aid agreements.*
- The Commerce City Police Department is responsible for notification of all Commerce City entities. *See Attachment 2 for flow diagram.*

## 6.2 Colorado Department of Public Health and Environment's Emergency Management Unit

After Ms. Dukart's presentation, the group sought more information regarding the State's role in emergency response. Thus, we invited Mr. Steve Gunderson of the Emergency Management Unit, Office of Environment, Colorado Department of Public Health and Environment to a work group session. He presented information to the work group on the state's role in emergency response and coordination between entities. According to Mr. Gunderson, the process guiding emergency preparedness is a closed system with most people in the business knowing one another and working continuously together. Mr. Gunderson's role is to interface with those participants and the local health departments to improve participation and cooperation. The following represents Mr. Gunderson's comments and recommendations:

- Hazardous material incidents occurring on rural highways are the responsibility

of the Colorado State Patrol. There are 12 two-person teams to respond to these incidents with the support of local response entities.

- The Colorado Department of Local Affairs, Office of Emergency Management plays a role in catastrophic events.
- The Colorado Department of Public Health and Environment (CDPHE) provides technical support and community outreach for public health and environmental emergencies.
- The Division of Fire Safety, located within the Colorado Department of Public Safety is a small entity that provides training for local Hazardous Materials teams. *See Attachment 1 for a definition of Hazardous Materials Teams.*
- Colorado is primarily a home rule state. According to state statute, hazardous materials response is primarily a local governmental responsibility assisted by state and federal government when necessary. C.R.S. § 29-22 (1997). This emphasizes local (city or county) control on issues which limits state control. If a response were needed, by state statute, the response is designated to the local authorities whether they are prepared and trained or not. The only authority the state has is on state highways.
- For emergency notification of the CDPHE, the Department's emergency response line of 756-4455 should be used.
- The Department of Local Affairs, the Office of Emergency Management reviews all local emergency preparedness plans. C.R.S. § 24-32-21 (1997).
- Mr. Gunderson recommends that a full-scale or table top exercise be performed to test for emergency preparedness. *See Attachment 1 for definitions of full-scale and table top exercises.*
- Mr. Gunderson suggests that North Suburban Hospital be informed of the chemicals of concern and their effects so they can quickly respond in the event of an accident. *See ATSDR reference list in Attachment 6.*
- Mr. Gunderson believes that it is important to utilize the Rocky Mountain Poison Center due to staff turnover at hospitals.

### Rocky Mountain Arsenal Contingency Plan

Ken Proper, Rocky Mountain Arsenal Safety Engineer, submitted a draft of the Emergency Response Integrated Contingency Plan to members of the group for review/comments. The members provided comments to Mr. Proper on aspects of the draft plan which have been incorporated into the final Emergency Response Integrated Contingency Plan. The following is an overview of the final plan:

The Emergency Response Integrated Contingency Plan is a plan to help Rocky Mountain Arsenal (RMA) Remediation Venture Office and RVO authorities in the prevention, response and recovery from unplanned incidents. These unplanned incidents or emergencies can endanger employees, citizens around RMA, wildlife, security and resources. This plan addresses actions before, during and after resolution of RMA emergencies and provides the following information:

- Facility maps, facility drawings and information
- Employee Emergency and Fire Prevention Plan
- Information on how to identify, report and react to possible emergencies on RMA
- Spill Prevention and Contingency Plan
- Emergency Response Equipment
- List of individuals qualified to serve as Installation On-Scene Commanders (IOSC). *See Attachment 1 for definition of IOSC.*
- Tactical response to chemical spills, fires, UXO, personal injuries and fatalities, airplane accidents on RMA, tornados and other possible natural emergencies.
- Listing of acutely toxic chemicals, reactive and mass-stored chemicals and their locations including decontamination procedures and locations of absorbent or neutralizing materiel for each identified chemical

Mr. Proper also provided the following information regarding offpost transportation:

All hazardous waste transported for the Arsenal is done in compliance with the Resource Conservation and Recovery Act (RCRA). *See Attachment 1 for definition of Hazardous Waste.* This involves meeting packaging and manifests requirements and using only transporters having EPA identification number. If a transporter has an accidental spill or discharge of the hazardous waste, they are responsible for its cleanup (40 C.F.R. 263.30). They are responsible for the treatment or containment of the spill and notification of local police and fire departments. The transporter is responsible for identifying those situations requiring telephonic notification of the spill to the National Response Center and for filing written reports as required. Transporters are subject to both EPA and Department of Transportation enforcement. If a spill or discharge occurs on-site, the transporter will follow the RMA contingency plan. If a spill or discharge occurs off-site a 24-hour number is available to the generator for assistance which will allow RMA to be informed and involved in the coordination of the spill or discharge.

Though it is the transporters responsibility, this compels the RMA to extensively research the history and training of the transporters who may be selected for the transportation.

Transport of munitions containing a chemical agent requires significantly more coordination between many different state and Federal agencies before shipment. Then shipment would only be done by specially trained Army agents to insure the munition's safety and security during shipment. *See Attachment 1 for definition of Chemical Agent.* Agent-contaminated waste will be shipped only when classified as a low level contaminant. RMA will be placing agent-related waste in the proposed Hazardous Waste Landfill that will be constructed at the RMA.

All employees are given Hazard Communication Training which also includes First Responder Awareness Training. This training provides the employees with the information necessary to assess when a spill is hazardous and when it is not. Hazardous materials on the Arsenal are kept in approved containers and approved storage when not being used.

#### 6.4 **Denver Emergency Preparedness Plan**

The group reviewed the City and County of Denver's Emergency Preparedness Plan. Mr. Greg Champlain of the City and County of Denver former head of the Local Emergency Planning Commission (LEPC), Division Chief for the Fire Department, and the head of Denver's Emergency Preparedness Office discussed the newly revised plan with the group. The following is the information he provided:

- The Metropolitan Emergency Telephone System (METS) is the main vehicle to disseminate information between agencies. The MET System is used to communicate immediate emergency concerns. To contact the necessary entities, the MET System is the best route. There are 24 lines with preprogrammed numbers and zones which would give recorded information to the appropriate entities. News media cannot activate the system, but they will be informed through the system. A cable interrupt agreement with TCI in Denver is in place. There is no such system outside Denver. *See Attachment 3 for agencies contacted through the MET system.*
- Entities which are on different frequencies can share information through the Fire Emergency Response Network (FERN).
- Denver International Airport (DIA) has its own contingency plan. DIA can be contacted through the MET System.
- Aurora, Denver, West Metro, North Metro, South Adams County Fire

Department's have all signed the Fire Mutual Aid Agreement. This mutual aid agreement will cover liability and jurisdiction during an emergency. The agreement will provide 440 fire fighters who are within 30 minutes of the Arsenal. The only cost to jurisdictions/users is supplies at the present time. *See Attachment 1 for agencies signed on with the Mutual Aid Agreement.*

- The Colorado State Office of Emergency Management coordinates emergencies that affect more than one county.
- The City and County of Denver's hazardous materials response team is located at the Speer and Auraria Fire Station which is about 20-30 minutes away from the Arsenal and Montbello community.
- Denver dispatch may activate the neighborhood siren system separately. The Arsenal can request that Denver activate the sirens if necessary for the situation.

#### 6.5 **Office of Emergency Management, Operations and Chemical Stockpiles**

After speaking with Greg Champlain of the City and County of Denver, the group met with David Holm, Chief of Operations/Support Section of the Office of Emergency Management (OEM). The following is an overview of the OEM and Mr. Holm's presentation to our group:

- The Office of Emergency Management is a part of the Division of Local Government, Department of Local Affairs. Within OEM are two sections: Local/Interagency Services and Operations/Support Services.
- Local/Interagency Services provides primary coordination with local governments, other state agencies and provides mitigation support.
- Operations/Support Services provides/exercises/training/technical support, as well as, direction and control assistance. (This includes the Chemical Stockpile Emergency Preparedness Program).
- The primary OEM mission is to assist local communities in meeting their goals through mitigation of, preparedness for, response to and recovery from disaster emergencies. The highest level of required on-site Army personnel will control and handle all disaster emergencies, though the RMA fire department will be the first responder. As a secondary focus, OEM assists other state agencies in dealing with disaster emergencies. The city mayors declare all disasters.
- Local governments have the primary responsibility for dealing with disasters. If the local governments have exhausted their resources, they may request

assistance from the state. Similarly, the state may request federal assistance through the Federal Emergency Management Agency (FEMA). This support could include funding, staff, and expertise, etc.

- The FEMA funds a large portion of the OEM budget.
- The OEM is an all hazard agency and is part of the Master Mutual Aid Agreement for Colorado.
- The OEM has participated in many RMA exercises over the four year cycle in the following capacities: points of contact, direction and control exercises and as observers/evaluators.
- If possible, OEM suggests that exercises be scheduled with limited or no notice to fully and adequately evaluate actual preparedness.

#### 6.6 **Adams County Communications Center**

The group spoke with Ms. Mary Grannis from the Adams County Communications Center (ADCOM) regarding the central dispatch system in Adams County, the group spoke. Ms. Grannis gave a tour of the facility as well as educated the group on the role ADCOM plays during an emergency. The following is a summary of the information that was provided by Ms. Grannis:

- ADCOM has had a good rapport with the Arsenal for 14 years.
- The RMA has pre-notified ADCOM of events in the past during certain projects, such as unexploded ordnance (UXO's) and odors due to excavation. Ms. Grannis says there is good networking with the Arsenal. Several RMA employees are volunteers for South Adams County Fire Protection District. *See Attachment 1 for definition of UXO.*
- The group asked Ms. Grannis to describe the events that would take place if there was an emergency on the Arsenal. Ms. Grannis explained that the Arsenal would call 911 (ADCOM). ADCOM would notify the police department. The police department notifies local entities as necessary.
- ADCOM has distributed Alpha pagers to 88 firefighters and police officers, including hazmat team members. These pagers can hold up to 500 characters per page. This system notifies hazmat members of the incident they may be responding to and any pertinent information that may be useful.
- If there is a hazmat incident in the Montbello area, the South Adams County Fire



station located at 56th and Holly could respond because this station is equipped with hazardous materials response vehicles and could handle an immediate emergency. Alternatively, the fire station on 58th and Washington could respond through the mutual aid agreement if requested by Denver. This station is also close and has a hazardous materials team. There are certain processes off-site that must be completed before mutual aid is triggered. *See Attachment 5 for the explanation of this process.*

- Communication between Denver and ADCOM is through the Colorado Law Enforcement Radio (CLEER) system. Both entities are on different frequencies, however, CLEER allows them to communicate easily.
- ADCOM stated that it would be beneficial to be included on the Denver MET System.
- US West Communications has the most updated telephone numbers in the state.
- US West Communications has multilingual communications capabilities. In the event that all phone lines are busy at ADCOM, the overflow would be received by Arapahoe County. Arapahoe County would then communicate all overflow calls to Adams County through interagency communication by computer messaging or interagency radio channels. In the event that phone lines are down alpha numeric pagers, cell phones and satellite phones are used for communication devices.

#### 6.7 **Rocky Mountain Arsenal Communications Center**

- The RVO has established a centralized communications system to ensure that appropriate two-way emergency communications are accessible to all site employees. This centralized communications system is a network of: wireless radios, telephone land lines, cellular phones, fire alarms, Central Dispatch Center. *See Attachment 6 for RMA Centralized Communications System reference.*
- For every location on the RMA, the centralized communications system provides the following: a channel for each entity/agency through which to communicate internally and to another entity/agency, emergency communications with all field personnel and volunteers, the capability of Central Dispatch to monitor all radio transmissions, the ability of Central Dispatch to provide accurate translation and to recall or direct personnel and visitors to a designated safe area(s), and all contractor controlled phones and cellular phones with 911 emergency response capability. All contractors have extensive training for procedures in emergency situations and are aware they need to dial 289-0911 on the cellular phones. If a contractor happens to dial 911 on a cellular phone, the call automatically is

routed back to the RMA Central Dispatch. *See Attachment 6, page 10 of the 'Help is at Hand' reference document.*

- Through a computer system, the Central Dispatch Center monitors and controls communications through radio system frequencies, alarms, On-site activities, and CAMEO (Computer-aided Management of Emergency Operations). Central Dispatch also provides up-to-the -minute weather conditions. *For more information on the CAMEO system refer to Attachment 1.*
- All telephones in buildings have been programmed to allow users to dial 911 directly for emergency assistance. This 911 call automatically connects the caller to the RMA Central Dispatch. Morrison Knudsen contractor phones dial 5-911 to reach on-site emergency assistance. Each phone is clearly labeled for on-site emergency information. In order to reach 911 outside the RMA, the user would need to dial 5-5-911.
- Central Dispatch and Fire and Emergency Service is staffed 7 days a week, 24 hours a day. All staff is EMT trained and Fire and Emergency Service have state of the art equipment for all likely emergency scenarios. There is one person per shift for Central Dispatch and a minimum of four persons per shift for Fire and Emergency Services. This staffing will occur throughout the remediation. Once the site becomes an official National Wildlife Refuge, the Fire and Emergency staff will be disbanded per the Record of Decision. **If more than one emergency occurs, the mutual aid agreement comes into effect. If a second emergency were to occur, the Tactical On-Scene Commander or the Installation On-Scene Commander would shut down all operations on the Arsenal.** *See Attachment 1 for definitions of Tactical and Installation On-Scene Commander.*

## 6.8 Denver International Airport

The work group recognized the need to contact Denver International Airport's (DIA) emergency preparedness unit regarding potential emergency response situations including but not limited to crashes, fires, and hazardous materials incidences on RMA. As such, the work group met with Greg Holt, an on-duty operations manager at DIA, to discuss DIA's plan provisions for handling an airplane crash at RMA. The following represented Mr. Holt's comments and recommendations:

- It is the Aviation Operations Division's responsibility to handle an emergency situation, such as an airplane accident on RMA.
- This Division operates 24 hours a day and is fully staffed.

- There are two mobile command posts staffed with an operations person, a senior fire person and a medical person.
- DIA's response radius is 5 miles which includes 1 mile of the RMA. Though, DIA will respond to the Arsenal beyond 1 mile.
- DIA is attempting to obtain a hazmat team.
- DIA needs to be informed of emergency response transportation routes from RMA out to 5 miles surrounding RMA to add to response maps.
- DIA is interested in participating in table top exercises with RMA.
- Since the startup of DIA, the current memorandum of understanding with RMA and the airport is outdated and language in it needs to be revised. The current MOU is being reviewed by the Army and DIA. This MOU covers all emergency response scenarios including but not limited to crashes, fires, and hazardous materials incidences.
- DIA should be included in ongoing training regarding entrance onto RMA in emergency situation and any special conditions that may exist on RMA in those situations.
- DIA should provide training to RMA fire department regarding aircraft scenarios.
- There is a concern that no direct emergency access route from DIA to RMA is available.
- Because DIA has responsibility over Pena Boulevard, DIA needs to know if there are any airborne contaminants since Pena is the main arterial source of city of Denver.
- Mutual aid would be called if there were a situation including multiple incidences.

**Attachments**  
**1-8**

## Attachment 1

### GLOSSARY

*Many of the definitions listed below come from state and federal regulations which are very technical and lengthy. Because of this, definitions for this document were intended to have a simplistic meaning. Due to the length of the remediation at the RMA, these definitions may require some change as remediation progresses over the next 12-14 years.*

1. CAMEO (Computer Aided Management of Emergency Operations):

CAMEO is a software program developed by the USEPA. It is a tool used for managing emergencies. It consists of maps, linked databases, and gas-cloud modeling tools. Many communities and agencies around the country use it. RMA uses the latest version of CAMEO and has linked several databases with the maps and modeling tools. This program will provide as much information as possible to emergency responders which will allow them to respond with the most appropriate method (fire, chemical spill, etc.). CAMEO also allows the prediction of chemical releases to be plotted on the map in order to decide when and what areas around the release may require evacuation.

2. Chemical Agent:

A chemical substance intended for use in military operations to kill, seriously injure, or incapacitate a person through its physiological effects. Excluded from this category are industrial chemicals, riot control agents, chemical herbicides, smoke, and incendiary materials.

3. Chemical Munitions:

Ammunition containing chemical agents designed to be lethal or incapacitating.

4. Chemical Warfare Materiel:

Chemical agents or military munitions containing agents.

5. Cleanup Operations:

An operation where hazardous substances are removed, contained, neutralized, stabilized, cleaned-up, or in any other manner processed or handled with the ultimate goal of making the site safer for people or the environment.

6. Emergency:

Any event that threatens to, or actually does, inflict damage to property, people or the environment.

7. Emergency Response:

A response effort by designated responders to an occurrence that results, or is likely to result in an emergency.

8. Full-scale Exercise:

A comprehensive emergency response exercise involving all levels of the emergency response team. A full-scale exercise is conducted using all emergency and support equipment and personnel under actual field conditions. Field evaluators monitor and audit performance.

9. Hazardous Materials:

A material that has one or more of the following characteristics:

- (1) Has a flash point below 140°F, closed cup, or is subject to spontaneous heating
- (2) Has a threshold limit value below 500ppm for gases and vapors, below 500 mg/ml for fumes, and below 25 mppcl (million particles per cubic foot) for dusts
- (3) Has a single dose oral LD<sub>50</sub> mg/kg
- (4) Is subject to polymerization with the release of large amounts of energy
- (5) Is a strong oxidizing or reducing agent
- (6) Causes first degree burns to skin from a short time exposure, or is systemically toxic by skin contact, or
- (7) In the course of normal operations, may produce dusts, gases, fumes, vapors, mists or smokes that have one more of the above characteristics. (USEPA)

Other classes of material include explosives, gases, flammable liquids, flammable solids, oxidizer & organic peroxides, poison & harmful, radioactive, corrosives, and miscellaneous dangerous goods.

10. Hazardous Materials Response (HAZMAT) Team:

An organized group of trained personnel who are called in the event of an uncontrolled release of hazardous substances. The team members perform control or stabilization responses to releases or potential releases of hazardous substances for the purpose of protecting human health and the environment. A HAZMAT team can be employed as part of private industry or as a separate component of a local government such as a fire brigade or fire department.

11. Hazardous Waste:

The EPA and delegated state authorities have promulgated lists of solid wastes that are hazardous wastes. The EPA and states's criteria for listing wastes as hazardous in most cases is based on a concern that the material may 1) cause, or significantly contribute to

an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or 2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

In addition, a solid waste is a hazardous waste if it exhibits a hazardous waste characteristic of ignitability, corrosivity, reactivity, or toxicity pursuant to prescribed tests or procedures. Finally, a solid waste is a hazardous waste if it is mixed with a hazardous waste, or if it is derived from the treatment, storage or disposal of a listed hazardous waste.

Other criteria used in defining a hazardous waste, in addition to exclusions to the hazardous waste definition can be found in the Code of Federal Regulations, Title 40, Protection of Environment U.S.C.

12. Industrial Chemical:

Chemicals developed or manufactured for use in industrial operations or research by industry, Government, or academia. These include organic solvents, inorganics, pesticides, insecticides, herbicides and fungicides.

13. Installation On-Scene Commander:

An individual designated as the company or governmental representative during emergency response operations. This individual is empowered to commit all necessary resources, personnel and monies, to control and end the emergency.

14. Local Entities:

Local governmental agencies, fire departments, local emergency preparedness agencies, school districts, police departments.

15. Mutual Aid Agreement:

*(See Attachment 5)*

16. Recovered Chemical Warfare Materiel:

Chemical warfare materiel discovered by chance, through a detailed remedial investigation or during real estate recovery operations.

17. Surrounding Communities:

Schools, governments, residents and businesses located adjacent to a point or property

of interest. At the RMA the surrounding communities are Montbello, Commerce City, Henderson and Green Valley Ranch, including DIA , Denver and Adams Counties.

18. Tabletop Exercise:

A simulated emergency response exercises involving the senior levels of the various HAZMAT, emergency response and support organizations. A tabletop exercise allows for the review and evaluation of the decision making activities involved in controlling and ending an emergency.

19. Tactical On-Scene Commander:

The Senior Fire and Emergency official present during an emergency response. The TOSC serves as the IOSC until relieved. The TOSC commands the emergency responders and technical personnel at the site of the emergency. The TOSC analyzes the nature and extent of the emergency and the nature of response necessary to control and end the emergency.

Based on the analysis, the TOSC selects and executes the appropriate tactical plan necessary to protect personnel and citizens working on, visiting or living in surrounding communities.

20. Task Specific Safety Plan:

A plan that establishes policies and procedures to protect workers and the public from the hazards posed by a hazardous waste site. This plan must be developed for all intrusive operations not specifically covered by a health and safety plan. It provides measurements to minimize accidents and injuries that may occur during normal daily activities or during adverse conditions such as hot or cold weather.

21. Unexploded Ordnance (UXO):

Military munitions (see #22 below) that have been primed, fuzed, armed or otherwise prepared for action, and have been fired, dropped, launched, projected or placed in a manner as to constitute a hazard to operations, installations, personnel, or material and remain unexploded either by malfunction, design or any other cause.

*The definitions below are not located in the text of this document but are essential to other definitions listed in the Attachment.*

22. Ammunition and Explosives:

Includes (but not limited to) all items of ammunition including confined gaseous, liquid and solid propellants, bombs, mines, explosives, guided missiles, warheads, pyrotechnics, smokes, incendiaries, chemical and riot control agents, demolition charges



and devices and components thereof, presenting real and potential hazards to life and property.

23. Conventional Ammunition:

All ammunition not classified as chemical munitions or special weapons. This type of ammunition depends on the use of high explosives to produce either blast and fire or release of special effects used for spotting, riot control, etc. This includes small arms, grenades - both explosive, riot control agents, and smoke, bombs, projectiles, mines, rockets, and demolition devices.

24. Intrusive Operations:

Any operation in which the surface of the ground has been broken.

25. Solid Waste:

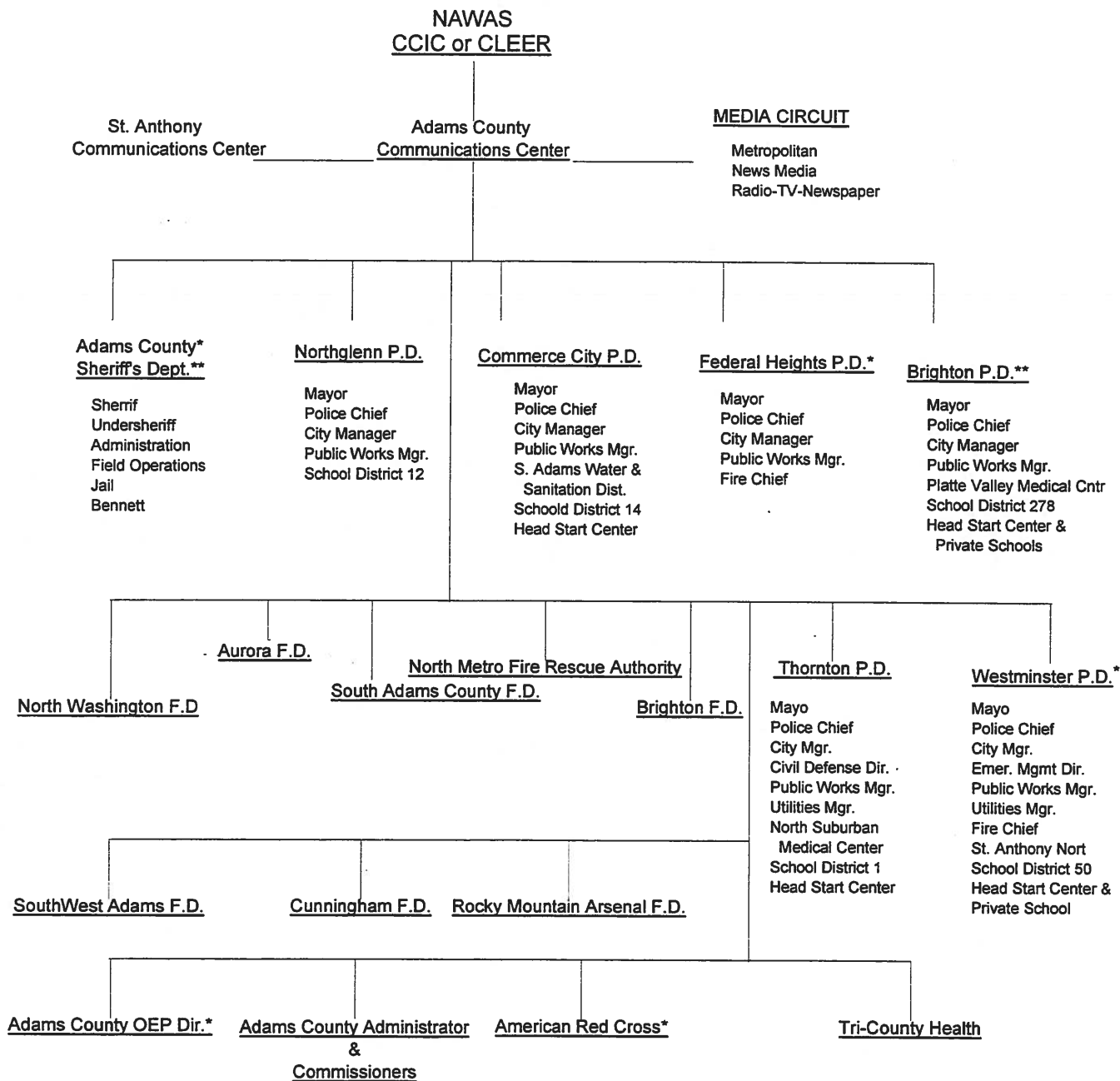
Any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant or air pollution control facility and other discarded material including solid, liquid semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities.....42 U.S.C. 5 6903(27). There are exclusions from the statutory definition of solid waste included in 42 U.S.C. 5 6903(27).

In addition, a solid waste could be a hazardous waste. A buried munition, chemical or conventional, meets the definition of a solid waste.

**Attachment 2**

**ADAMS COUNTY EMERGENCY OPERATIONS PLAN**

**WARNING & NOTIFICATION FANOUT ANNEX B  
WARNING NOTIFICATION FANOUT APPENDIX 1**



\*Rocky Flats Notification  
\*\*Fort St. Vrain

NOTE: It may not be necessary to notify all on this fanout in every case.

### Attachment 3

#### METS Subscribers

##### Zone 11- Activators

Denver Office of Emergency Management  
Arapahoe County Sheriff's Department  
Arvada Police Department  
Aurora Communications Center  
Boulder Regional Communications Center  
Broomfield Department of Public Safety  
Colorado State Patrol  
Colorado Office of Emergency Management  
Denver Fire Dispatch  
Denver Fire PIO  
Denver Health-Paramedic Division  
Denver Mayor's Office  
Denver Police Department  
Denver Public Works Dispatch  
Douglas County Communications  
Jefferson County EOM  
Jefferson County Sheriff  
Lakewood Communications Center  
Littleton Police  
National Weather Service  
Public Service Company  
Rocky Flats  
Rocky Mountain Arsenal EPC  
Rocky Mountain Arsenal Fire  
Rocky Mountain Arsenal Security  
Rocky Mountain Poison Center  
DIA - Operations  
DIA - Public Affairs  
St. Anthony's Hospital

##### Zone 17 - City Agencies

Colorado Office of Emergency Management  
Denver Fire Dispatch  
Denver Fire PIO  
Denver Health - Paramedic Division  
Denver Health Medical Center Emergency  
Denver Office of Emergency Management  
Denver Police Department

Mayor's Office  
Public Work's Dispatch  
DIA - Operations  
DIA - Public Affairs

##### Receivers - Zone 18

Metro Traffic  
Rocky Mountain News  
KUSA TV Channel 9  
KMGH TV Channel 7  
KCNC TV Channel 4  
KWGN TV Channel 2  
KOA Radio  
KCFR Radio  
Associated Press  
Denver Post  
KNUS Radio  
KYGO Radio  
Mountain News

##### Zone 16 - Rocky Flats Special Zone

Boulder Regional Communications Center  
Colorado Office of Emergency Mgmt.  
Colorado State Patrol  
Denver OEM  
Jefferson County Sheriff  
Jefferson County OEM  
Rocky Flats  
Arvada Police Department

##### Zone 12 - All METS Subscribers

***\*Zones 13-15 - Disaster Telephone Network which includes all hospitals for mass casualty situations.***

## Attachment 4

### **Mutual Aid**

The mutual aid agreement allows communities to call upon other participating fire departments for equipment and personnel. There is no charge for the personnel or equipment-even if the equipment is damaged or personnel are injured. The only charge is for expendable supplies, such as foam or absorbent. Without the agreement, each community would individually fund this to reach the higher level of emergency response provided by the agreement. *The definitions of mutual and automatic aid, as stated below by various participating fire departments, differ with each department to ensure adequate coverage of each jurisdiction.*

**The following fire departments have signed the “1997 Adams County Mutual Aid Trust:”**

Bennett Fire Department  
South Adams Fire Department  
South Adams Sheriff's Office  
Brighton Fire Department  
Southwest Adams County Fire District  
Jefferson County Hazardous Substance Response Authority  
Byers Volunteer Fire Department  
Strasburg Volunteer Fire Department  
Highway 36 Land Development  
Federal Heights Fire Department  
Westminster Fire Department  
North Metro Fire Department  
Sable Altura Fire Department  
North Washington Fire Department  
Adams County Communication Center  
RMA Fire Department  
Tri-County Health Department

#### **Note:**

- *Denver will provide mutual aid if it is requested by RMA but there is not a written mutual aid agreement with them.*
- *The RMA does not have Automatic Aid with other departments.*

## Attachment 4 (Cont.)

### **Response from Greg Champlain Denver Office of Emergency Management**

8-27-97

1. What is mutual aid? Basically, Formal or informal agreements to render assistance when requested. You help me and I'll help you. These agreements are supposed to benefit both parties. The most effective agreements are written and detail- who, what, when, and how assistance will be requested and provided. Often, legal contracts are developed to resolve all costs and liability. Generally, under mutual aid, each department covers all of their own personnel, equipment costs, and workman's compensation. Supplies and damage to equipment are often the responsibility of the requesting authority.
2. Automatic Aid: A formal, written contract which defines services to be provided by one party for another. For example, one fire department provides fire protection for a small area of another city which cannot be effectively covered by that city in exchange for a dollar figure. Again, all the details and activation procedures are spelled out. This type of agreement typically benefits only one party.
3. What triggers mutual aid? Normally, a request for assistance from the incident commander or dispatch center, but the triggering mechanism is normally spelled out in the agreement.
4. What is the difference between mutual aid and automatic aid? One or the other, or both may exist. Denver and West Metro jointly respond to areas of southwest metro Denver because both departments do not have adequate equipment in that area. Areas currently receive a specific response from Denver and West Metro fire departments. They help each other and calls are routed automatically to both dispatch centers. There is no associated cost to either department, so the assistance is mutual and automatic.



**MEMORANDUM**  
*From The Aurora Fire Department*

**TO:** Heather

**FROM:** Deputy Chief Ron Bennett *RB*

**DATE:** September 9, 1997

**SUBJECT:** DEFINITION OF MUTUAL AND AUTOMATIC AID

---

Automatic Aid

Automatic Aid is an agreement between two agencies whereby explicit details are discussed and agreed upon prior to the need for service by either agency. Normally, the details of the agreement coincide with the agency's normal response criteria. Strictly defined response area, apparatus, and staffing complements are normally programmed into the agency's CAD. When a request for service is issued, the agency providing the service does so in an automatic fashion. These requests do not need approval before a response is granted.

Mutual Aid

Mutual Aid is normally defined for events that occur where an agency has an unexpected event that cannot be controlled with that agency's existing resources. In the Denver metro area, a mutual aid agreement is also signed prior to an unexpected event.

The primary difference between automatic aid and mutual aid agreements is that a request for mutual aid response may be denied by the providing agency with respect to the response obligation that agency has to its own community. Requests for mutual aid go through a clearing process of chief officers.

**SOUTH ADAMS COUNTY FIRE DISTRICT**

6550 E. 72ND AVE.  
COMMERCE CITY, CO 80022  
(303) 288-0635  
FAX: (303) 288-5977

August 27, 1997

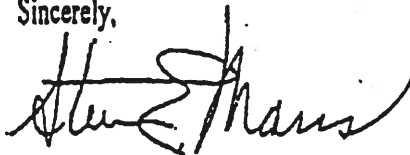
Ms. Heather Younger  
CDPH

Dear Ms. Younger:

The South Adams County Fire Protection District has mutual aid agreements with all surrounding fire departments, including the Rocky Mountain Arsenal Fire Department. Any time a another department requests our assistance, we will respond.

At the current time, we have no automatic aid agreements with any agencies.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven E. Marrs". The signature is written in a cursive, flowing style.

Steven E. Marrs  
Deputy Fire Marshal

## Attachment 5

### ATSDR reference List

#### Toxicological Profiles

ATSDR has produced profile documents on hazardous substances found at National Priorities List (NPL) Superfund sites. The profiles describe the toxicity, potential for human exposure and human health effects of each substance. For information on the profiles, contact ATSDR's regional office in Denver at 303-294-1063 or 1064. To obtain profiles, contact ATSDR, Division of Toxicology, 1600 Clifton Road, Mail stop E-29, Atlanta, GA 30333, 404-629-6000.

#### Public Health Statements

Each Toxicological Profile includes a four-to-nine-page Public Health Statement. The question-and-answer format provides information on the hazards and health effects of toxic substances commonly found at Superfund sites. For information on the statements, contact ATSDR's regional office at 303-294-1063 or 1064, or ATSDR, Division of Health Education, 1600 Clifton Road NE, Mail stop E-33, Atlanta, GA 30333, 404-639-6205.

#### References on Toxicology and Hazard Identification

Mackison F W, Stricoff R S, Partridge L J, Jr., eds. *NIOSH Pocket Guide to Chemical Hazards*. 1985. Washington, DC: GPO. #017-033-00342-4. \$7.

This handbook provides a quick inexpensive source of basic health hazard information but does not include all common hazards.

Klassen C D, Amdur M O, Doull J, eds. *Cassarett and Doull's Toxicology*. 3rd ed. 1986. Riverside, NJ: Macmillan ISBN 0-02-364650-0. \$54.95.

The standard reference in toxicology.

Kamrin M A. *Toxicology*. 1988. Chelsea, MI: Lewis Publisher, Inc. ISBN 0-87371-133-5. \$40.

This small book is a concise (144 pages) treatment of basic toxicology profiles, risk assessment and risk management.

Finkel A J. *Hamilton & Hardy's Industrial Toxicology*. 4th ed. 1983. Stoneham, MA: Butterworth. ISBN 0-7236-7027-7. \$62.

A useful reference providing toxicology information on a wide range of industrial chemicals.

Clayton G D, Clayton F E, eds. *Patty's Industrial Hygiene and Toxicology*. 6 Part-3 volume set. 1985. New York: John Wiley and Sons. ISBN 0-471-83199-9. \$780/set.

An extensive treatment of industrial processes and hazards.



Ellerhorn M J, Barceloux D G. *Medical Toxicology: Diagnosis & Treatment of Human Poisoning*. 1987. New York: Elsevier. ISBN: 0-444-01129-3. \$185.

Good resource on the toxicology information needed by health care professionals. Also contains diagnostic and treatment information for many hazardous chemicals.

Kimbrough, R D, et al. *Clinical Effects of Environmental Chemicals: A Software Approach to Etiologic Diagnosis*. 1989. New York: Hemisphere. ISBN 0-89116-921-0. \$55.

This book lists over 200 environmental chemicals and links them with their chemical signs and symptoms. Another section of the book lists sign and symptoms and identifies possible chemical etiology. A software package is included with the book.

Dreisbach R H, Robertson W O. eds. *Handbook of Poisoning: Prevention Diagnosis and Treatment*. 12th ed. 1987. Las Altos, CA: Appleton & Lange. ISBN 0-8385-3643-3. \$16.50.

Background and treatment procedures for many chemicals. Deals primarily with acute poisoning.

Morgan D P. *Recognition and Management of Pesticide Poisonings*. 4th Ed. 1989. Washington: U.S. Governmental Printing Office.

Good background and treatment guidelines for the various groups of pesticides. To order the book call the National Pesticide Telecommunications Network at 800-858-7378. A small fee for postage may be charged.

Murdock B S. *Environmental Issues in Primary Care*. 1991. Minnesota: Freshwater Foundation. \$30.

This resource was developed for the Minnesota Department of Health and provides current information on a variety of environmental health issues. This publication is available from the Health & Environment Digest, 725 County Road 6, Wayzata, MN 55391, 612-449-0092.

Agency For Toxic Substances and Disease Registry.

This federal agency has produced a number of resource materials appropriate for health professionals.

*Case Studies in Environmental Medicine*.

This is a series of self-instruction educational materials designed to guide physicians through the diagnosis, treatment, and surveillance of persons exposed to hazardous substances.

**Attachment 6**

**Rocky Mountain Arsenal**  
**Centralized Communications Center**  
**'Help is at Hand'**

# Centralized Communications System

---



---

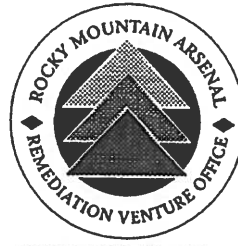
**Rocky Mountain Arsenal**

# Table of Contents

|   |              |
|---|--------------|
| <b>Remediation Venture Office</b> .....       | <b>1</b>     |
| <b>Centralized Communication System</b> ..... | <b>2-3</b>   |
| Central Dispatch Center .....                 | 4            |
| Two-Way Radio .....                           | 5-7          |
| Fire Telephone .....                          | 8            |
| Pull Box .....                                | 9            |
| Telephone in Building .....                   | 10           |
| Cellular Phone .....                          | 10           |
| Siren .....                                   | 11           |
| <b>Radio Call Signs</b> .....                 | <b>12-14</b> |
| Central Dispatch .....                        | 12           |
| Contractor Organizations .....                | 12           |
| Fire Department .....                         | 12           |
| Gates .....                                   | 13           |
| Police .....                                  | 13           |
| RMA Army Personnel .....                      | 13           |
| Remediation Venture Office .....              | 14           |
| U.S. Fish & Wildlife Service .....            | 14           |
| <b>Conclusion</b> .....                       | <b>15</b>    |

---

# Remediation Venture Office



**RVO**

The Remediation Venture Office (RVO) is responsible for managing the Superfund cleanup at Rocky Mountain Arsenal (RMA). The RVO's mission is to plan and implement the remediation of RMA as defined in the Record of Decision (ROD), and to turn the Arsenal into a national wildlife refuge available for public use and enjoyment.

The RVO has selected a Program Management Contractor (PMC) to conduct and to complete the cleanup phases outlined in the ROD. The RVO and PMC will team up to focus on achieving the ROD's goals in a truly innovative and unique partnership of organizations and individuals.

# **Centralized Communications System**

To accomplish the cleanup effort, the RVO and its contractors have employed hundreds of individuals. With this number of people and this type of activity, it is important to have an effective communications system in the event of life threatening emergencies resulting from:

- Nature
- Industrial related causes
- Personal injury

The RVO has established a **centralized communications system** to ensure that appropriate two-way emergency communications are accessible to all site employees. This centralized communications system is a network of:

- Wireless radios
- Telephone land lines
- Cellular phones
- Fire alarms
- Central Dispatch Center

## Centralized Communications System

For every location on the RMA, the centralized communications system provides:

- A channel for each entity/agency through which to communicate internally and to another entity/agency.
- Emergency communications with all field personnel and volunteers.
- The capability of Central Dispatch to monitor all radio transmissions.
- The ability of Central Dispatch to provide accurate translation and to recall or direct personnel and visitors to a designated safe area(s).
- All contractor controlled phones and cellular phones with "911" emergency response capability.

## Central Dispatch Center

Through a computer system, the Central Dispatch Center monitors and controls communications:

- Radio system frequencies
- Alarms
- On-site activities
- CAMEO (Computer-aided Management of Emergency Operations)

Central Dispatch also provides up-to-the-minute weather conditions:

- Wind speed
- Wind direction
- Wind chill
- Air temperature
- Barometric pressure
- Rainfall
- Humidity

**Note: Central Dispatch is Channel 1 on all radios.**



## **Two-Way Radio**

---

To communicate with Central Dispatch, three main types of handheld, wireless two-way radios are used:

- Motorola HT 1000
- Motorola HT 600
- Saber

It is vital that personnel take a radio with them when they go into the field.

- A work crew within view of each other needs only one radio.
- Each person working alone needs to have a radio.

### **Tips for using the radio**

- **Powered up**—turn unit on, with volume loud enough to hear.
- **Accessible**—keep it on your person and within easy reach.
- **Checked and in Working Order**—do a radio check with your agency base station or Central Dispatch.

When using a two-way radio system, follow the Federal Communication Commission's rules and regulations:

- Stay off the air if Central Dispatch notifies field personnel of an emergency situation.
- Do not use profane or obscene language.
- Keep conversations brief and confined to business.
- Do not send any personal messages.

## Two-Way Radio

---

### To operate a two-way radio

1. Power it up.
2. Hold radio, speaker facing out, with your hand wrapped around back of radio.
3. With your free hand, turn radio frequency selector switch to assigned channel. (Ignore the toggle switch on top of your radio. It serves no function in the use of the radio.)
4. With your free hand, turn radio on with knob approximately one-half to three-quarters of the way.
5. Depress the Push-To-Talk (PTT) button, the largest button located on the left side of the radio.
6. Pause momentarily, then speak concisely in a clear voice at a moderate rate.
7. When finished speaking, pause. Then, release the PTT button. Listen for reply.

## Two-Way Radio

### To contact someone by two-way radio

1. Call your radio contact using his/her proper identification name, and then identify yourself.  
*Example: "Central Dispatch, this is Wildlife 5."*
2. The receiver then will acknowledge your transmission.  
*Example: "Wildlife 5 this is Central Dispatch, go ahead."*
3. Make your transmission short and clear.  
*Example: "Central Dispatch, I need a firefighter at building 745 in South Plants for a fire inspection." "Wildlife 5, a firefighter will be dispatched to that location."*
4. Finally, confirm that you agree with the action and sign off the radio.  
*Example: "Copy. Wildlife 5 clear."*

### Important to remember

- Keep channels clear during emergencies.
- Do not transmit unless absolutely necessary.

## **Fire Telephone**

---

Fire telephones are directly connected to the fire department for emergencies. These phones are in red boxes mounted on poles throughout RMA.

### **To operate a fire phone**

1. Open the red box by turning the latch one-quarter of the way, counter clockwise.
2. Open the door and lift the receiver with your right hand.
3. With your left hand, make sure the cradle is all the way up.
4. When Central Dispatch comes on the line, concisely explain your emergency in a clear voice at a moderate rate.
5. Remain on the line until the dispatcher tells you to hang up.
6. To hang up, return the handset to the cradle, and close and relatch the door.

## **Pull Box**

---

Pull boxes are directly connected to Central Dispatch, so when activated their locations are identified. Pull boxes, located throughout RMA, are identified by their white faces and handles.

### **To operate a pull box**

1. Position yourself in front of the pull box and place your hand on its handle.
2. Pull the handle all the way down, and hold it. This winds up the spring that runs the small generator to transmit the signal.
3. Select and firmly push the **ONE** colored button that corresponds with your emergency:  
**Red—Fire**  
**Blue—Police**  
**Green—Ambulance**
4. Release the handle allowing it to return to its original position on its own. This allows the spring to unwind driving the generator to transmit the signal.
5. In the upper right hand corner of the box, a small LED will flash and chirp three times. This indicates that the message was sent to Central Dispatch.
6. The message will be transmitted to Central Dispatch who then will dispatch the needed emergency service to your location.
7. Once a message has been sent to Central Dispatch you must wait one minute before you can send another message.

## **Telephone in Building**

Since emergencies may occur within buildings where telephones are readily available, all of these telephones have been programmed to allow users to dial "911" directly for emergency assistance. Each phone has been labeled with calling procedure instructions.

Regardless of the phone system you use, when in contact with Central Dispatch by phone follow these procedures:

- Speak slowly and clearly.
- Give your name and location.
- Listen to and follow the dispatcher's instructions.
- Do not hang up until the dispatcher instructs you to do so.

## **Cellular Phone**

When using a cellular phone for emergency situations, you must dial 289-0911 to be connected with Central Dispatch.

Follow the same procedures for **Telephones in Buildings** (see above) when in contact with Central Dispatch.

## Siren

---

RMA has four sirens used to notify personnel of imminent weather hazards. These sirens are located at North Plants, South Plants, the fire station, and at the motor pool.

When a siren is sounded:

- **Radio users** must switch to channel 1 for emergency information.
- **Personnel** who do not carry a radio must contact their supervisors for emergency information.
- **Supervisors** will be notified by phone or in person as needed.

# Radio Call Signs

## Central Dispatch

- CENTRAL DISPATCH (Radio - Channel 1)

## Contractor Organizations

- Call signs to be provided to Central Dispatch.

## Fire Department

- Fire Chief ..... FIRE 1
- Asst. Chief #1 (Teter) ..... FIRE 2
- Asst. Chief #2 ..... FIRE 3
- Captain (Smith) ..... FIRE 4
- Captain (Hlavaty) ..... FIRE 5
- Captain (Higdon) ..... FIRE 6
- Fire Truck #1 ..... ENGINE 1
- Fire Truck #2 ..... ENGINE 2
- Ambulance ..... AMBULANCE 1
- Ambulance ..... AMBULANCE 2
- Tanker ..... TANKER 1
- Administrative Vehicle ..... ADMIN 1
- Administrative Vehicle ..... ADMIN 2



## **Gates**

---

- North Gate .....NORTH GATE
- South Gate .....SOUTH GATE
- West Gate .....WEST GATE

## **Police**

---

- Chief of Police .....POLICE 1
- Shift Supervisor .....POLICE 2
- Roving Patrols .....POLICE 3, etc.

## **RMA Army Personnel**

---

These include all call signs to be used during CWT activities.

- PMRMA .....ARMY 1
- CWT .....ARMY + ESCORT #

## **Remediation Venture Office Staff**

---

- PMRMA .....RVO1
- Ray Rauch .....RVO2
- Bill McKinney .....RVO3
- Other RVO Personnel ... .RVO + RADIO CALL #

## **U.S. Fish & Wildlife Service**

---

- No change to current call signs for Intranet communications.

## **Conclusion**

The centralized communications system ensures a safe environment for all employees and visitors at the Arsenal. Being aware of how to use the system could save your life or another's.

**Attachment 7**

**Emergency Planning and Community Right-to-Know Act (EPCRA)**



# Emergency Planning and Community Right-to-Know Act (EPCRA)

## CONTENTS

[What is  
EPCRA?](#)

[Emergency  
Planning](#)

[Toll Free  
EPCRA  
Hotline](#)

[Community  
Right-to-Know](#)

[Organization](#)

[New  
Developments](#)

[Region 8  
Contacts](#)

[Glossary](#)

## **HIGHLIGHTS OF EPCRA**

[Emergency  
Planning](#)

[Local  
Emergency  
Planning  
Committees  
\(LEPC's\)](#)

[Emergency  
Release  
Notification](#)

[Hazardous  
Chemical  
Reporting](#)

*Region 8 has prepared the following information to summarize the Emergency Planning and Community Right-to-Know Act. (This is a summary and is not intended to be all inclusive of the requirements of the law.)*

## WHAT IS EPCRA?

The Emergency Planning & Community Right-To-Know Act (EPCRA) was passed by Congress as part of the Superfund Amendments and Reauthorization Act of 1986 (SARA). As a result, EPCRA is also referred to as SARA Title III. The act created a program with two basic goals: to facilitate and promote planning for chemical emergencies at the state and local levels, and to provide information to the public about the chemicals used, stored, and released in their communities. The total number of reportable chemicals listed on the Toxic Release Inventory exceeds 600 chemicals and chemical categories.

---

## EMERGENCY PLANNING

EPCRA's emergency planning provisions are designed to help your community prepare for and respond to emergencies involving hazardous substances. These functions are carried out by each of the fifty State Emergency Response Commissions (SERCs) and by the Local Emergency Planning Committees (LEPCs) under each SERC's jurisdiction. On Tribal lands, the equivalent of the SERC is the Tribal Emergency Response Commission (TERC). These organizations encourage prevention, preparedness, and quick response to chemical emergencies.

Emergency plans help facilities, local and state governments respond to accidents quickly and efficiently. Careful emergency planning can make the difference between disaster and slight inconvenience. These plans outline the procedures a facility and the community should follow in responding to a chemical release. The planning process has a greater impact than the plan itself, encouraging awareness, communication, and coordination of efforts.

EPCRA's emergency planning provisions also require facilities to immediately notify SERCs and LEPCs of accidental chemical releases. This notification will activate emergency plans.

[Toxic  
Chemical  
Release  
Reporting](#)

[Return to Table of Contents](#)

[Trade Secrets](#)

[Penalties and  
Citizen Suits](#)

---

## COMMUNITY RIGHT-TO-KNOW

You have the right to information about the amounts, location and potential effects of hazardous chemicals present in your community. Under the hazardous chemical reporting provision of EPCRA, facilities storing hazardous chemicals above specified thresholds must report the chemical type and storage amount to LEPCs and SERCs. The LEPC and SERC must make the hazardous chemical inventory and accidental release information submitted by local facilities available to the public.

EPCRA also created the [Toxic Release Inventory](#) or TRI program. Under Section 313 of EPCRA, covered facilities are required to submit annual reports to the EPA and the State on the amounts of toxic chemicals their facility released into the environment, either routinely or accidentally. The EPA compiles these reports into a database, known as the Toxic Release Inventory or TRI. The TRI database informs governments and the public about releases of toxic chemicals into the air, water, and land.

The EPA encourages citizens, government entities, and facilities to use these data to establish a chemical profile of their community and to initiate and direct pollution prevention activities and risk reduction analyses. Pollution prevention avoids the creation of waste, as opposed to pollution control which concentrates on managing and disposing of waste.

[Return to TOC](#)

---

## ORGANIZATION

EPCRA is implemented by two offices within the EPA. The [Chemical Emergency Preparedness and Prevention Office \(CEPPO\)](#) carries out the emergency planning, emergency response notification, and inventory reporting provisions of the law. The [Office of Pollution Prevention and Toxics \(OPPT\)](#) implements the [Toxics Release Inventory \(TRI\)](#) aspects.

CEPPO is part of the [Office of Solid Waste and Emergency Response](#). Its mission is to help local and state authorities assemble the necessary chemical information for chemical emergency prevention, preparedness, and response activities.

The branch of OPPT primarily associated with EPCRA is the Toxic Release Inventory Branch (TRIB). This branch oversees the collection of facility release reports and management of the [Toxic Release Inventory \(TRI\)](#) database. It also administers right-to-know components of the program, and provides a toll-free **EPCRA Hotline** for the public at 1-800-424-9346.

[Return to TOC](#)

---

## HIGHLIGHTS OF EPCRA

## **Emergency Planning (40 CFR Sections 301-303)**

- Governors appoint State Emergency Response Commissions (SERCs)
- SERCs establish emergency planning districts and appoint, and coordinate Local Emergency Planning Committees

## **Local Emergency Planning Committees (LEPCs)**

- LEPCs develop local emergency response plans and review them at least annually.
- Facilities notify SERCs and LEPCs if they have extremely hazardous substances present above "threshold planning quantities" and participate in emergency planning.

## **Emergency Release Notification (40 CFR Section 304)**

- Facilities notify SERCs and LEPCs immediately of accidental releases of hazardous substances in excess of "reportable quantities" and provide written reports on actions taken and on medical effects.
- SERCs and LEPCs make accidental release information available to the public upon request.

## **Hazardous Chemical Reporting (40 CFR Sections 311-312)**

- Facilities submit material safety data sheets (MSDS's) or lists of hazardous chemicals on-site (above "threshold quantities") to SERCs, LEPCs, and local fire departments.
- Facilities submit emergency and hazardous chemical inventory forms (amounts and locations of chemicals) to SERCs, LEPCs, and local fire departments.
- SERCs and LEPCs make hazardous chemical information available to the public upon request.

## **Toxic Chemical Release Reporting (40 CFR Section 313)**

- Covered facilities submit annual reports on yearly toxic chemical releases to states and EPA.
- EPA establishes a national toxic chemical release inventory, based on facility reports.
- States and EPA make release information available to the public and communities. EPA makes information accessible on a national computerized TRI database and by other means.

## **Trade Secrets (40 CFR Section 322)**

- Facilities may claim chemical identity information trade secrets, but must substantiate the claim.
- Trade secret information may be disclosed to health professionals for diagnostic, treatment, and prevention purposes upon request.
- Citizens may challenge trade secret claims by petitioning EPA.

## **Penalties and Citizen Suits (40 CFR Sections 325-326)**

- The government may assess civil and administrative penalties of \$10,000 to \$75,000 per day against facilities that fail to comply with the provisions of EPCRA.

- Anyone who knowingly and willfully fails to provide emergency release notification is subject to criminal penalties of up to \$50,000 or five years in prison.
- The SERC, LEPC, EPA, or the state or local government may initiate actions against facility owners and operators for failure to comply with the law.
- Anyone who knowingly and willfully discloses trade secret information may face penalties up to \$20,000 and/or one year in prison.
- Citizens may sue a facility, the EPA, the SERC or the governor of their state for failure to provide information that must be made public under the Act.
- The public can petition EPA to add or delete chemicals from the list of toxic chemicals that must be reported under the toxic chemical release inventory.

[Return to TOC](#)

---

## NEW DEVELOPMENTS

On April 22, 1997, EPA Administrator Carol Browner signed a rule that increased the number of industries required to report under the community right-to-know program. The new rule requires about 6,100 new facilities in seven industrial sectors to report their annual toxic releases beginning with the 1998 reporting year. With the addition of these new industrial sectors, a total of more than 31,000 facilities will publicly report their toxic releases.

The seven new industrial sectors added under the right-to-know program are: metal mining, coal mining, electric utilities (those that use coal and oil as fuel), commercial hazardous waste treatment, petroleum bulk terminals, chemical distributors and solvent recovery services. These categories will join the 20 others already reporting on toxic releases. Companies within these industrial sectors must begin reporting in 1998; these figures are due to EPA by July 1, 1999.

---

## GLOSSARY

- CEPPPO - EPA Chemical Emergency Preparedness and Prevention Office
- EPCRA - Emergency Planning and Community Right-to-Know Act
- LEPC - Local Emergency Planning Committee
- MSDS - Material Safety Data Sheet
- OPPT - EPA Office of Pollution Prevention and Toxics
- SARA - Superfund Amendments and Reauthorization Act of 1986
- SERC - State Emergency Response Commission
- TERC - Tribal Emergency Response Commission
- TRI - Toxic Release Inventory

[Return to TOC](#)

---

## Additional EPCRA-TRI Information

[To see 1991-1995 TRI slideshow.](#)



**See Also:**

- [TRI Questions and Answers](#)
- [TRI 1998 News Release](#)

**For more detailed information on TRI:**

- [Office of Pollution Prevention and Toxics TRI webpage](#)
- [Chemical Emergency Preparedness and Prevention Office Homepage](#)

**For an updated list of the over 600 reportable TRI chemicals:**

- [TRI Chemical List](#)

**For TRI Data Retrievals:**

- [Available in dBase format](#)
- [ENVIROFACTS Warehouse of EPA Data](#)
- [The "Right-to-Know" Network: RTK.NET](#)

---

---

**For more information about the Region 8 EPCRA program, contact the EPCRA Program Coordinator or other EPA contacts listed below:**

Joyel Dhieux, EPCRA Program Coordinator  
U.S. EPA Region 8 (8P-P3T)  
999 18th Street, Suite 500  
Denver, CO 80202-2466  
303-312-6447 or 1-800-227-8917 ext 6447  
E-mail: [dhieux.joyel@epa.gov](mailto:dhieux.joyel@epa.gov) (Sec. 313)

Jack Salter - E-mail: [salter.jack@epa.gov](mailto:salter.jack@epa.gov) (Sec. 313)

**Other EPCRA contacts are:**

Glenn Ford - E-mail: [ford.glenn@epa.gov](mailto:ford.glenn@epa.gov) (Secs. 302-312)  
Robert Roy - E-mail: [roy.robert@epa.gov](mailto:roy.robert@epa.gov) (Secs. 302-312)  
Cheryl Turcotte - E-mail: [turcotte.cheryl@epa.gov](mailto:turcotte.cheryl@epa.gov) (Secs. 312-313)  
Olive Hofstader - E-mail: [hofstader.olive@epa.gov](mailto:hofstader.olive@epa.gov) (Secs. 312-313)

[Return to Top](#)

---

---

| [Office of Pollution Prevention and Toxics - TRI webpage](#) |  
| [Chemical Emergency Preparedness and Prevention Office Homepage](#) |  
| [Region 8 Homepage](#) | [EPA Headquarters Homepage](#) |  
| [COMMENTS](#) | [SEARCH](#) |

---

---

URL: <http://www.epa.gov/region08/toxics/epcra/epcra.html>

Last Update: August 11, 1998

Region 8 Webmaster

## **Attachment 8**

### **Acknowledgments**

#### 1. **Special Acknowledgments**

This group would like to recognize the special effort put forth by Susan Ulrich through the information-gathering process, as well as, the drafting process. We thank Tri-County Health Department for loaning us such a valuable asset as we have found in Susan and we will continue to appreciate her participation as a member of the Army's public relations team.

In addition, we would like to thank Ken Proper, of the RVO's Health and Safety Office for his obvious responsiveness to this work group's recommendations. This responsiveness is directly reflected in the RMA's emergency contingency plan which has already been revised to address many of the group's recommendations. Ken has shown this group that the RVO is dedicated to public health and safety in the RMA surrounding communities.

#### 2. **General Acknowledgments**

##### **Group Members**

We would also like to thank all of the members of the work group for their hard work and focus for the sake of the community. The following persons and organizations were represented on this group:

Roland Russell (Commerce City resident), Beth Gallegos (Commerce City resident), Mary Seawell (Colorado Department of Public Health and Environment) ("CDPHE"), Heather Younger ("CDPHE"), Ken Proper Remedial Venture Office, Health and Safety Group ("RVO") for the Rocky Mountain Arsenal, Glenn Tucker and Chris Poulet (Agency for Toxic Substances and Disease Registry Region VIII ("ATSDR")), John Student (Denver Department of Environmental Health, Environmental Protection Division), Susan Ulrich (Tri-County Health Department, presently with Research Management Consultant's, Inc. (RMCI), Tim Kilgannon (Remediation Venture Office, Special Projects Manager), Larry Kimmel (Environmental Protection Agency, Region VIII) and Holly Mangers (Colorado Department of Public Health and Environment).

#### 3. **Other Contributors**

In addition to the persons listed above, the group would like to recognize the following for sharing important information with this group and ensuring the accuracy of this document:

Rosalie Dukart (Adams County Office of Emergency Preparedness; Steve Gunderson

(Emergency Management Unit; Office of Environment, CDPHE;), Greg Champlain (City and County of Denver Emergency Preparedness Office); Dave Holm (Office of Emergency Management, CDPHE); Mary Grannis (Adams County Communications Center), Ron Bennett (City of Aurora Fire Department), John Isham (Remediation Venture Office) and Greg Holt (Denver International Airport).