

Chemical Stockpile Emergency Preparedness Program

Fiscal Year 2014 Report to Congress

January 29, 2015



Federal Emergency Management Agency

Message from the Administrator



I am pleased to present the Chemical Stockpile Emergency Preparedness Program (CSEPP) Fiscal Year (FY) 2014 Report to Congress, which has been prepared by the Federal Emergency Management Agency (FEMA).

This document has been compiled in response to requirements set forth in 50 United States Code (U.S.C.) §1521 (e)(2)(C), which directs that "Not later than December 15 of each year, the Administrator shall transmit a report to Congress on the activities carried out under this paragraph during the fiscal year preceding the fiscal year in which the report is submitted" and 50 U.S.C. §1521 (i)(2)(B), which requires that the report contain "[a] site-by-site description of actions taken to

assist State and local governments (either directly or through the Federal Emergency Management Agency) in carrying out functions relating to emergency preparedness and response in accordance with subsection (e) of this section."

Pursuant to Congressional requirements, this report is being provided to the following Members of Congress:

The Honorable John McCain Chairman, Senate Committee on Armed Services

The Honorable Jack Reed Ranking Member, Senate Committee on Armed Services

The Honorable Howard P. "Buck" McKeon Chairman, House Committee on Armed Services

The Honorable Adam Smith Ranking Member, House Committee on Armed Services

The Honorable Thad Cochran Chairman, Senate Appropriations Subcommittee on Defense

The Honorable Richard J. Durbin Ranking Member, Senate Appropriations Subcommittee on Defense The Honorable Rodney Frelinghuysen Chairman, House Appropriations Subcommittee on Defense

The Honorable Pete Visclosky Ranking Member, House Appropriations Subcommittee on Defense

Inquiries relating to this report may be directed to me at (202) 646-3900 or to the Department's Chief Financial Officer, Chip Fulghum, at (202) 447-0441.

Sincerely,

W. Craig Fugate Administrator Federal Emergency Management Agency

Executive Summary

The CSEPP is a whole community partnership that unites FEMA, the U.S. Army, multiple Federal departments and agencies, two states, dozens of local governments, volunteer organizations, and the private sector. Its mission is to "enhance existing local, installation, tribal, state, and Federal capabilities to protect the health and safety of the public, workforce, and environment from the effects of a chemical accident or incident involving the Department of the Army chemical stockpile." In FY 2014, CSEPP continued to fulfill that mission.

While the Army continues to construct disposal facilities and test systems that will destroy chemical weapon stockpiles at the two remaining CSEPP sites—Pueblo Chemical Depot (PCD) in Colorado and Blue Grass Army Depot in Kentucky (BGAD)—the risks to the communities from the storage of chemical agents remain. FEMA is committed to maintaining its preparedness mission until the chemical stockpile is destroyed.

During its 25-year history, CSEPP has completed its mission at six of the original eight chemical stockpile sites, and program funding has left these communities better prepared to respond to any hazard or emergency. During FY 2014, preparedness goals in the last two CSEPP communities were met through collaborative program management, including integrated process teams that brought together all stakeholders to identify program needs, develop alternatives, and implement solutions.

Specific CSEPP accomplishments in Colorado and Kentucky during the fiscal year include:

- Designed, renovated, and constructed nine emergency operations centers (EOCs);
- Maintained and enhanced interoperable emergency communications systems;
- Conducted full-scale emergency exercises (jointly managed by the Army and FEMA) and finalized after-action reports with corrective action plans; and
- Educated at-risk residents on emergency protective actions and trained emergency management and response personnel.

These activities exemplify FEMA's mission "to support our citizens and first responders to ensure that as a Nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards."

This report also includes an overview of the status of the program, a summary of significant program accomplishments at the Federal level, and a description of the status and accomplishments of the two CSEPP communities.



Chemical Stockpile Emergency Preparedness Program Fiscal Year 2014 Report to Congress

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I. Legislative Requirements

The U.S. Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA) submits the Fiscal Year (FY) 2014 Annual Report to the U.S. Congress in accordance with the requirements set forth in 50 United States Code (U.S.C.) §1521 (e)(2)(C), which directs the following:

"Not later than December 15 of each year, the Administrator shall transmit a report to Congress on the activities carried out under this paragraph during the fiscal year preceding the fiscal year in which the report is submitted."

In addition, 50 U.S.C. §1521 (i)(2)(B) requires that the report contain:

"[a] site-by-site description of actions taken to assist State and local governments (either directly or through the Federal Emergency Management Agency) in carrying out functions relating to emergency preparedness and response in accordance with subsection (e) of this section."

Pursuant to subsection (e), the Department of the Army and FEMA entered into a memorandum of understanding (MOU) whereby the Army provides funds to FEMA to support the Chemical Stockpile Emergency Preparedness Program (CSEPP) mission of assisting state and local governments to carry out functions related to off-post emergency preparedness and response in communities surrounding military installations that store and dispose of lethal chemical warfare agents and munitions. The Army retained responsibility for all related on-post activities.

This report reflects the status of FEMA activities implemented by CSEPP to provide maximum protection for residents in the two states and eleven counties that participated in CSEPP in FY 2014. The status of on-post preparedness activities implemented by the Army can be found in the U.S. Department of Defense's *Annual Status Report on the Destruction of the United States Stockpile of Lethal Chemical Agents and Munitions for Fiscal Year 2014*.

II. Background

CSEPP is a unique whole community partnership whose participants share a common goal: to prepare and enable communities to protect residents in the unlikely event of a chemical emergency at the Nation's two remaining chemical stockpile sites. CSEPP's vision is "a fully prepared team of local, installation, tribal nation, state, and Federal professionals, developing and executing an effective emergency preparedness and response program." To fulfill this vision, CSEPP's mission is "to enhance existing local, installation, tribal, state, and Federal capabilities to protect the health and safety of the public, workforce, and environment from the effects of a chemical accident or incident involving the U.S. Army chemical stockpile."

Figure 1 illustrates chemical stockpile locations that remain operational and those where destruction of the stockpile has been completed.



Figure 1: Current and Previous Chemical Stockpile Locations

In FY 2014, CSEPP focused on the remaining stockpiles at PCD in Colorado and Blue Grass Chemical Activity at BGAD in Kentucky. CSEPP activities in Colorado are detailed in Appendix A and activities in Kentucky are detailed in Appendix B.

In FY 2014, the states of Colorado and Kentucky and eleven counties surrounding the stockpile locations participated in CSEPP. Three of these counties are in immediate response zones (IRZs), generally within a six-mile radius of where chemical warfare agents are stored. Six counties are in protective action zones (PAZs), outside the IRZs but within six to 31 miles of stockpile locations. The remaining two counties are designated as host counties; they are not at direct risk from a chemical stockpile accident but instead provide decontamination and medical treatment, mass care, host facilities, and mutual aid support to at-risk jurisdictions. Specific active program partners are listed in Appendix C.

III. Program History

FEMA began providing preparedness assistance to communities near chemical stockpile sites in August 1988 through a Memorandum of Understanding (MOU) with the Army. Under this agreement, the Army provides for protection of personnel at its chemical depots (on-post) and provides funding to FEMA to assist state and local governments to carry out functions related to emergency preparedness and response in the communities surrounding depots (offpost). This enhances the abilities of the civilian communities neighboring the eight original CSEPP sites to respond to potential chemical warfare agent emergencies. The MOU also established a framework for collaborating with potentially affected state, local, and tribal governments to

CSEPP Fiscal Year 2014 Stakeholders

- Pueblo Chemical Depot
- Blue Grass Army Depot
- The State of Colorado
- The Commonwealth of Kentucky
- One county in Colorado
- Ten counties in Kentucky
- Residents of and businesses in CSEPP communities
- Federal facilities in the hazard zone
- U.S. Congress
- U.S. taxpayers
- Nonprofit and nongovernmental organizations
- Public- and private-sector agencies

provide for public health and safety; identify roles and responsibilities; and establish joint program efforts in planning, training, exercising, and exchanging information. The MOU has been reaffirmed and revised over the years as the program matured; a 1997 revision (reaffirmed in 2004) gave FEMA responsibility and accountability for all aspects of off-post emergency preparedness.

CSEPP also operates under a strategic plan that reflects a coordinated effort between the Army's Chemical Materials Activity and FEMA's Technological Hazards Division to develop and implement a customer-centered planning process. The plan contains a mission statement, goals and objectives, performance goals, descriptions, identification of key external factors that could affect achievement of the plan's goals and objectives, and an evaluation program.

Collaboration

Working in a collaborative environment with state and local partners, FEMA is responsible for the following tasks:

- Assisting states and counties to identify program needs and develop long-term budget goals and objectives;
- Administering off-post CSEPP funds;
- Supporting CSEPP states to develop response plans;
- Developing, delivering, and evaluating training;
- Providing technical assistance; and
- Developing programs for evaluating off-post readiness including a robust exercise program jointly managed by FEMA and the U.S. Army.

Funding Administration

FEMA is engaged with state and local partners throughout the budget and funding administration cycle, including helping to assess program needs, developing and validating budgets, administering program funds, and closing out a site once the chemical destruction mission is completed.

CSEPP is administered through the states. FEMA validates off-post preparedness requirements and develops a budget in coordination with state, local, and tribal governments. These budget requests are then incorporated into the U.S. Department of Defense (DoD) budget submission to Congress. Once funds are appropriated, the Army transfers funds to FEMA, which has full authority and responsibility for their distribution and expenditure. FEMA and the Army continue to cooperate closely and coordinate their efforts. Program management performance is maintained through regular joint meetings; common budgeting, cost accounting, and performance management systems; and aggressive program integration efforts (see Figure 2).



Figure 2: CSEPP Program Integration

FEMA distributes funds to the states under CSEPP cooperative agreements (CAs) that include annual work plans negotiated between each state and its FEMA Regional office. Under these CAs, each state identifies its needs, develops proposed projects to meet those needs, requests funds from FEMA, and disburses these funds to the various state offices and local governments involved in the proposed projects. The states are responsible for financial accountability, adherence to Federal grant management rules, and providing quarterly financial reports and narrative performance reports addressing the capability improvement realized through the funds. Local governments are sub-grantees to the state.

From CSEPP's inception in 1988 through the end of FY 2014, approximately \$1.3 billion has been allocated to states and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) under annual CAs or through FEMA-managed contracts. Allocation of resources is tracked according to the CSEPP organization (including the Army and FEMA) that spends the funds rather than the jurisdiction that benefits from the service. Therefore, the amount of funds spent at the state level does not include Federal expenditures on contract support to the communities (such as for engineering and training services) and does not necessarily reflect the complete set of benefits that communities have received through CSEPP. Total funding amounts in Table 1 represent combined totals for direct award funds and funding for contracts managed by FEMA Headquarters on behalf of CSEPP states and the CTUIR. Direct award funds represent amounts sent directly to states and the CTUIR via FEMA CAs; one Army CA was sent directly to the CTUIR in FY 2002. FEMA-managed contracts include contracts managed by FEMA on behalf of states or amounts FEMA awarded to the U.S. Army Corps of Engineers for collective protection projects in the CSEPP communities. These funds represent a combination of actual expenditures and funds remaining to expend.

The CSEPP Environment

CSEPP depends upon multiple programmatic, technological, collaborative, and societal factors that stakeholders must consider if the program is to meet its goals and operate effectively.

Programmatic Factors

Effective risk analysis and planning require strong and continuous commitment from states and individual communities. To present and defend their annually updated lifecycle cost estimates (LCCEs), those agencies developing CSEPP budgets must ensure funding requirements are valid and must maintain fully operational CSEPP efforts through the end of destruction operations at each stockpile site. Delays and extensions of the stockpile destruction mission will necessitate

Table 1: CSEPP Off-post Funds, Including Direct
Awards and FEMA-managed Contracts

State	FY 2014	FY 1989–2013
Alabama	\$0	\$399,331,704
Arkansas	\$0	\$117,540,262
Colorado	\$3,750,746	\$84,391,803
Illinois	\$0	\$12,013,875
Indiana	\$0	\$56,215,924
Kentucky	\$11,710,219	\$228,962,918
Maryland	\$0	\$31,220,632
Oregon	\$0	\$161,203,626
Utah	\$0	\$123,761,112
Washington	\$0	\$77,141,705
CTUIR	\$0	\$6,606,173
Totals	\$15,460,965	\$1,298,389,734

continued CSEPP operations and will increase the cost of the program beyond projections.

Technological Factors

Emergency preparedness and response capabilities must be maintained to achieve full operational readiness through the end of destruction operations. Continued research and ongoing development of new technologies in interoperable public safety communications systems, public alert and notification systems (including the Integrated Public Alert and Warning System (IPAWS)), and emergency management automation systems continue to produce new and expanded requirements for technology. Overall costs and benefits of replacing current technology with new systems, however, must be carefully weighed to ensure prudent stewardship of taxpayer funds. CSEPP conducts cost-benefit analyses for upgrades, replacements, and maintenance to ensure operational readiness and compliance with changing Federal requirements. When approved, CSEPP implements these changes in a regionalized, interoperable manner.

Collaborative Factors

The partnership between FEMA and the Army is supported by the Environmental Protection Agency (EPA), the Centers for Disease Control and Prevention (CDC), the Occupational Safety and Health Administration (OSHA), and other Federal agencies. This partnership and coordination enable government officials to collectively assess the needs of CSEPP communities and determine comprehensive guidance. This coordination is also crucial to resolving issues including:

- Identifying appropriate permissible exposure limits (PELs) for workers, or identifying other occupational exposure limits (such as National Institute for Occupational Safety and Health recommended exposure limits or American Conference of Governmental Industrial Hygienists Threshold Limit Values) when OSHA has not established a PEL;
- Establishing protocols for emergency workers;
- Identifying health and safety standards for personal protective equipment; and
- Identifying appropriate published exposure limits or guidelines for off-post populations (such as Acute Exposure Guideline Levels).

Societal Factors

It is important to engage the whole community in preparing for, responding to, recovering from, and mitigating disasters. The whole community concept is a means by which residents, emergency management practitioners, organizational and community leaders, and government officials can collectively understand and assess the needs of their communities and determine the best ways to organize and strengthen their assets, capacities, and interests. Doing so builds a more effective path to societal security and resilience.

Throughout its history, CSEPP has endeavored to be inclusive of the whole community and support the diversity of organizations and populations in the communities the program serves. As part of the program's efforts to address and involve individuals with access and functional needs, the requirements under Section 504 of the Rehabilitation Act of 1973, Title VI of the Civil Rights Act of 1964 and Executive Order 13166: *Improving Access to Services for Persons with Limited English Proficiency (LEP)* are specifically reflected in CSEPP's annual cooperative agreement guidance, as well as in its functional guidance on community planning and public affairs. The Colorado and Kentucky CSEPP communities include LEP populations, most notably Spanish-language speakers. U.S. Census data and information contained in emergency planning studies estimate the LEP community in the Pueblo CSEPP emergency planning zone (EPZ) is 439 individuals (4.7 percent of the nighttime population) and the LEP community in the Blue Grass CSEPP EPZ is 1,115 individuals (1.1 percent of the nighttime population). The program provides technical assistance, grant funds, and training; specific examples of efforts to support the LEP community are given throughout this report.

CSEPP also engages the whole community by using integrated process teams (IPTs) in each community. The use of IPTs—groups of CSEPP stakeholders who represent Federal, state, and local organizations—as a program management tool was authorized by Congress and is implemented under the joint FEMA-Army memorandum. IPTs provide common solutions and consistency of approaches across CSEPP communities and produce products and tools of immediate value, not only to CSEPP, but also to the broader emergency preparedness field. Programmatic policy is developed with input from IPTs that include Colorado and Kentucky CSEPP stakeholders. Outputs from these groups are forwarded to FEMA and Army CSEPP program management for consideration. Specific guidance documents have been developed by IPTs and approved by program leaders. Since the documents were developed by working groups of stakeholders, concurrence was achieved long before the guidance was approved and officially implemented. The Pueblo and Blue Grass CSEPP communities each have their own IPT, as well as sub-IPTs. In addition, there are national IPTs that correlate with specific CSEPP benchmarks. (See Table 2 below for a complete list of working groups.)

	Functional Working Groups	Community Working Groups
-	Automation Exercise Coordination Group Medical Coordination Group Public Affairs	 Pueblo Community Alert and Notification Work Group Automation Work Group Charter Committee Exercise Steering Group Exercise Planning Committee Medical Preparedness Work Group Public Affairs Work Group Readiness Work Group Training Work Group
		 Blue Grass Community Medical Quality Improvement Team Integrated Public Alert and Warning System Work Group Public Affairs Work Group Exercise Planning Team

Table 2: Current CSEPP Working Groups

IV. Results

CSEPP Management System

CSEPP focuses on providing resources necessary to establish preparedness and response infrastructures that enable state and local emergency managers to warn the public quickly; manage the response; and communicate with emergency responders, the public, and the media. A key CSEPP management principle focuses on the concept of "functional equivalency," whereby resources are provided to each site to develop capabilities under the 12 programmatic benchmarks defined by CSEPP (discussed below).

FEMA has a fiduciary responsibility to carefully evaluate and validate requests from states and communities for delivering necessary resources to local communities facing the most significant potential threats. FEMA strives to ensure cost-efficiency in procurement and interoperability among major systems that benefit multiple jurisdictions, which, in many cases, means state-level procurement of alert and notification, communications, and automation systems. FEMA also maintains effective program management at the Federal level to ensure consistent capabilities throughout all CSEPP jurisdictions.

Risk Reduction

The most effective way to permanently reduce the risk to communities surrounding chemical stockpile sites is to destroy the agents posing the threat. As of the end of FY 2014, stockpiles have been completely destroyed at six sites: the Edgewood Area of Aberdeen Proving Ground (Maryland), Newport Chemical Depot (Indiana/Illinois), Pine Bluff Arsenal (Arkansas), Anniston Army Depot (Alabama), Umatilla Chemical Depot (Oregon/Washington/CTUIR), and Deseret Chemical Depot (Utah). At the two remaining stockpile locations, PCD and BGAD, additional risk reduction during storage has been achieved by taking steps to further secure the stockpile, including reconfiguring the stockpile, completing mitigation activities to reduce potential consequences of lightning strikes and earthquakes, enhancing agent detection and monitoring systems, and installing filtration systems at all Pueblo storage igloos.

CSEPP Benchmarks

The December 2012 *CSEPP Program Guidance* describes 12 performance benchmarks "used by Federal, State, and local government organizations to identify the CSEPP capabilities being funded ... [and] in reporting the status of CSEPP to Congress in required annual reports." Under the CSEPP CA, states are required to report expenditures and performance using these benchmarks. The 12 benchmarks are as follows:

- Administrative support for each CSEPP installation, state, and county necessary to support their CSEPP preparedness activities;
- Functioning alert and notification system extending across the installation and appropriate off-post jurisdictions to communicate protective actions and other critical response information to the public;
- Functioning automation system for rapid exchange of chemical hazard modeling and protective action analysis between the CSEPP installation, state and counties;
- Functioning communications links between the CSEPP installation, state and county Emergency Operation Centers (EOCs), and the Joint Information Center (JIC) to support coordinated implementation of response plans.;
- Coordinated plans for response to hazards from the stockpile for each CSEPP installation, state, and county;
- Functioning EOCs at each CSEPP installation, state, and county to support coordinated implementation of response plans;
- An exercise program that effectively tests integrated response capabilities and preparedness;
- A medical program to support on- and off-post medical preparedness among first responder and receiver organizations for a chemical weapons accident or incident;
- Specialized personnel, such as CSEPP manager, public information officer, planner, and information technology specialist, to support CSEPP activities at CSEPP installations, states, and counties;
- Protective action strategy for each jurisdiction that is based on the threat from the stockpile, consistent with response plans, and conforms to established CSEPP guidance;
- A program for coordinated emergency public information and education, including a public outreach/education program to enhance CSEPP awareness and familiarity with the protective action strategy; and
- Training programs, consistent with CSEPP guidance, state and local training plans (for off-post jurisdiction personnel) and Army certification requirements (for installation personnel) that maintain proficiency of emergency services providers/responders and CSEPP staff.

These benchmarks apply to the states and counties and are reflected in CSEPP's strategic plan, CSEPP guidance, LCCEs, annual budgets, quarterly performance reports from grantees, and employee work plans.

To complement the benchmarks, CSEPP developed a performance measurement system that includes several elements:

- FEMA leads each community IPT in a biannual update of a community profile describing the status of each community benchmark quantitatively (e.g., number of sirens and message reader boards installed) and qualitatively (e.g., sufficiency of resources to support a capability). The profile enables Federal, state, and local partners to assess the CSEPP community's deficiencies in preparedness, rate benchmark effectiveness, and address challenges through remedial action.
- FEMA and the Army jointly direct an annual community exercise (including a review of plans and training) in accordance with the Homeland Security Exercise and Evaluation Program (HSEEP). The exercise co-directors finalize an after-action report within 90 days that includes observations, findings, and a corrective action plan.
- FEMA reviews the results of community public information surveys to evaluate awareness of the local chemical stockpile hazard and the appropriate protective actions for the public.
- FEMA considers the results of jurisdictional equipment maintenance and testing programs as well as lessons learned from all-hazards community disaster response.

Figure 3 shows performance measure ratings for the Colorado and Kentucky CSEPP communities for each benchmark.



Figure 3: Benchmark Compliance for Colorado and Kentucky

As the program has continued and basic capabilities have been met, community expectations have increased. Within a given benchmark, a community may decide to focus on a specific challenge as a way to gauge performance on that benchmark. This does not mean that capabilities for that benchmark are incomplete, but it does illustrate where the community's priorities lie. For example, a community may determine that its Coordinated Plans capability is less than complete because its recovery plan needs to be updated to reflect demographic changes. This specific issue would need to be resolved to return to full compliance.

A summary of significant activities in the next section discusses each benchmark from a programmatic level. The progress and status of each CSEPP community during FY 2014 are addressed in Appendix A (Colorado) and Appendix B (Kentucky).

V. Summary of Significant Activities

Programmatic activities in FY 2014 that support the 12 CSEPP benchmarks are as follows.

Administration



CSEPP's size and complexity requires a measured, cooperative, and inclusive administration to ensure success. These administrative activities include:

- Maintaining the programmatic LCCE for off-post CSEPP;
- Monitoring and assessing program accomplishments using CSEPP's benchmarks;
- Participating in bi-monthly community IPT meetings to assist all stakeholders in identifying program needs and preparing budget requests;
- Maintaining the programmatic LCCE for FEMA, Colorado, and Kentucky;
- Cooperatively negotiating FY 2015 budgets with Colorado and Kentucky that maintain and enhance emergency preparedness based upon chemical stockpile risks;
- Providing staff and contractor support to programmatic and community IPTs and workgroups to address technical challenges that arise; and
- Providing programmatic oversight in accordance with the Army-FEMA MOU.

CSEPP WebCA

CSEPP WebCA is a web-based, enterprise-wide system for managing CSEPP cooperative agreements throughout the entire grant lifecycle, from application through closeout. System requirements were developed by a user group comprising Federal, state, and local personnel and continue to be refined in response to field experience. CSEPP's benchmarks are integrated into the grant application and reporting processes implemented in CSEPP WebCA.

CSEPP WebCA automates preparation and submission of CA applications and allows staff at FEMA Regional offices and Headquarters to review and comment on each application. After Headquarters electronically submits funding approvals to the FEMA region, regional grant staff prepare and process awarding and obligating documentation. CSEPP WebCA automates quarterly performance and financial reporting, as well as the request, review, and approval of post-award modifications to grants, including reallocations, performance extensions, requests for additional funds, and changes of scope. Finally, at the end of the performance period for each grant, the system is used to prepare closeout reports and make any final adjustments to bring the un-liquidated balance to zero.

As noted above, grantees at six sites have closed out their CSEPP awards. As part of the closeout process, grant managers use CSEPP WebCA's electronic filing cabinet to archive grant-related documents. While each FEMA Region office maintains an official grant file for each grantee, the electronic filing cabinet provides a quick and convenient means of accessing grant information. CSEPP WebCA will be maintained until all CSEPP sites are closed. In September 2014, CSEPP received an Authority to Operate for CSEPP WebCA in a new hosting environment that provides enhanced security and redundancy.

Teams Meetings

In August 2014, CSEPP convened a meeting in Denver, CO, hosted by its partners at the U.S. EPA. The purpose of the meeting was to promote interaction between different functional areas on selected cross-cutting topics. On the first day, the Program Management Team, composed of senior FEMA, U.S. Army, state and county CSEPP managers, met to discuss a wide range of programmatic issues. The individual workgroups and IPTs met in breakout sessions on the second day. The final day consisted of a plenary session of all attendees, featuring a review of team work plans, discussion and identification of next steps for common issues, and presentations on two case studies with CSEPP relevance. Participants gave positive feedback on the meeting's effectiveness for sharing information and identifying areas to improve outcomes through enhanced coordination of group activities.

Throughout the rest of the year, CSEPP held a range of other operational meetings for each of the two communities and the IPTs and workgroups, as well as budget negotiation meetings, training delivery, and sessions with subject-matter experts. Program Management Team meetings of Army, FEMA, and Colorado and Kentucky CSEPP stakeholders in February and August ensured the interests of all CSEPP jurisdictions were programmatically addressed.

Alert and Notification



Providing timely warning to residents of a chemical accident is a critical emergency management function. CSEPP has long supported and maintained robust emergency alert and notification systems in each CSEPP community as its primary means of meeting the Congressional mandate of maximum protection for

communities, chemical workers, and the environment. Alert and notification occur in two distinct steps: attracting the attention of the public and providing information concerning appropriate protective actions.

CSEPP alert and notification consists of a network of outdoor and indoor alerting devices in residential dwellings and special facilities that serve populated areas of the IRZs. Examples of outdoor alerting devices are public address capable sirens and electronic digital signs. An example of an indoor alerting device is a tone alert radio. CSEPP also provides digital telephone, email, and short message service (SMS) text messaging as part of its digital telephone notification system. These systems use a combination of subscriber telephone information and

public registration to transmit messages. CSEPP-provided alert and notification systems also warn residents of other hazards, such as tornadoes. FEMA provides direct engineering support in the form of government personnel and contractor support to ensure the CSEPP alert and notification systems are properly designed and maintained.

Outreach to and notification and protection of individuals with access and functional needs, including LEP, have been CSEPP priorities for many years. Weather alert radios, used to warn residents of any emergencies (including chemical accidents), have an audible tone and flashing lights that illuminate when activated. These features alert persons with visual and hearing impairments to an emergency. In addition, reverse 911 systems are available for residents to receive voice and text messaging in the event of an emergency. CSEPP worked with the FEMA Office of Disability Integration and Coordination in FY 2012 to produce a video for local and state planners on inclusive emergency preparedness. In addition, each remaining CSEPP state has Spanish-language translators and interpreters in its JIC to assist in communicating emergency instructions to persons with limited English proficiency. Sign language interpretation is also available at the JIC in Kentucky. These capabilities are tested during annual exercises.

IPAWS

IPAWS, the Nation's next-generation infrastructure of alert and warning networks, expands on the traditional audio-only radio and television Emergency Alert System (EAS) and facilitates Federal, state, territorial, tribal, and local warning authorities alerting and warning their communities of any hazard affecting public safety. CSEPP recognized the value of this program to enhance current alert and warning systems, and both CSEPP sites have agreed to pilot test IPAWS. CSEPP has worked with communities, the IPAWS Program Management Office, and the testing lab of DoD's Joint Interoperability Test Command to develop a comprehensive test plan. Pilot tests in both communities are scheduled for FY 2015.

Governance, technology, and messaging teams, consisting of FEMA, state, and county representatives, met periodically in FY 2014 to incorporate IPAWS into the CSEPP response plans. The governance team created draft plans for Kentucky and three primary documents that can be used by others to assist with IPAWS planning: a state plan template, a plan development document, and a MOU template. The technology team determined three primary routes through which messaging will be distributed (National Weather Service radio, the EAS, and Wireless Emergency Alerts) and then developed a list of functions an IPAWS-capable system should be able to perform. The messaging team discussed changes in messaging lengths and character counts to meet IPAWS requirements and created a messaging template and a messaging template with SMS.

These work products have been compiled into a draft IPAWS implementation guide. This document captures the work completed, identifies areas that still need work, and provides information on the development of comprehensive alert and notification plans that include

IPAWS. The associated products and templates are available on the CSEPP portal at www.cseppportal.net.

Automation



WebPuffTM

WebPuff, a web-based system built around the DoD-accredited D2-Puff[™] atmospheric dispersion model, enables automated sharing of essential information between Army and off-post EOCs. WebPuff is accredited by the DoD Information

Assurance Certification and Accreditation Process and holds a full Authority to Operate, as required for military software under the DoD information assurance initiative. During an emergency, WebPuff is a key response coordination tool, as demonstrated by the quarterly exercises conducted by the Army in each CSEPP community. It exports all unique CSEPP information in a format compliant with the latest private-sector standards for information exchange, the common alerting protocol (CAP). This allows states and counties to use existing or planned CAP-compliant commercial all-hazards automation systems to manage the response to a CSEPP event, avoiding the need to train personnel on separate systems and the cost of maintaining a separate CSEPP automation system. Training and help desk support is also provided for the depot and community users of WebPuff.

CSEPP Portal

The CSEPP Portal (www.cseppportal.net) is a web-based information-sharing and collaboration platform using Microsoft SharePoint software. Since 2003, the portal has provided access to a vast library of information, including Federal program guidance, presentations from stakeholder meetings, site event calendars, and links to partner websites. The portal also provides a platform for the CSEPP communities, IPTs, and working groups to collaborate remotely on preparedness projects. The public facing pages of the Portal were updated in FY 2014 to make the program's technical video training library available to a broader audience. Stakeholder feedback drives updates to Portal functions to ensure the tool meets the needs of the more than 1,000 registered users from CSEPP partner organizations. In September 2014, CSEPP received an Authority to Operate for the CSEPP Portal in a new hosting environment that provides enhanced security and redundancy.

Communications



CSEPP funds interoperable communication systems that provide emergency managers and first responders with robust, state-of-the-art equipment to significantly enhance communications during emergencies. These systems link the critical state and local response organizations, including emergency medical services (EMS), fire, police, hospital, and public works. FEMA provides

engineering support to assist the communities in maintaining interoperable communications.

During the fiscal year, FEMA provided technical assistance to the Pueblo and Blue Grass CSEPP communities in planning for communication systems upgrades, maintenance programs, and designs of new capabilities. Highlights include completion of the radio repeater replacement project in Kentucky to meet Federal Communications Commission requirements and installation of an independent zone controller to support interoperable radio communications in southeastern Colorado. Details on the specific site communications projects are located in Appendices A and B.

Coordinated Plans



CSEPP emergency plans are developed to capture the most effective protective action strategies and procedures for each CSEPP community. CSEPP plans are regularly updated based upon the latest guidance about the National Incident Management System (NIMS) and the Incident Command System (ICS) and

coordinated across the depot and off-post community. FEMA provides ongoing technical support for planning projects in Colorado and Kentucky, including regular revisions to state and county plans and maintenance of planning template software that supports coordination and compliance with Federal planning standards. In addition, during FY 2014, CSEPP provided technical support for several planning initiatives for communities surrounding Pueblo and Blue Grass. The most significant were a re-assessment of the population at risk in Kentucky due to recent growth in the community and the development of incident-specific plans for each county. Details on these projects are provided in Appendices A and B.

Emergency Operations Centers



An EOC serves as the central location for emergency management. In these facilities, various response organizations come together to plan and implement emergency response. CSEPP, with local and state contributions, helps fund EOCs, ensuring that communities have necessary facilities to manage an emergency

response. During FY 2014, a new Emergency Services Center opened in Pueblo County, Colorado, and the Powell County, Kentucky EOC was moved to a new facility. FEMA also provided extensive financial and technical support for seven other new or renovated EOCs. In particular, FEMA provided engineering personnel to assist with facility design reviews and contractor support from technology firms to help participating states and counties develop system specifications. FEMA Regions IV and VIII personnel conducted environmental and historical preservation reviews to ensure compliance with the National Environmental Policy Act and related Federal laws and executive orders. Details on those projects are located in Appendices A and B.

Exercises



A robust exercise program is critical in evaluating the planning, training, and operation of an emergency management program. Annual CSEPP exercises are planned and executed by the Army and FEMA and jointly managed by Army and FEMA regional co-directors. These exercises ensure on-post and off-post responses are properly coordinated across all response partners.

During FY 2014, the full-scale CSEPP exercises in Pueblo on May 6, 2014, and Blue Grass on September 17, 2014, were evaluated by teams of Federal, state, and local personnel. Final Army-FEMA after-action reports recommending corrective actions were distributed across the program within 90 days of the exercise. Over the last 20 years at the eight sites, reports have been prepared on more than 100 full-scale community exercises (and a dozen joint table-top exercises), examining community-wide and jurisdiction-specific practices. In the past, this process has resulted in enhancements to depot-to-community emergency notification agreements, mass decontamination practices by fire departments and hospitals, and protocols for community joint information systems. Based on the corrective action plans included in the FY 2013 exercise reports, specific improvements were made in FY 2014 in local protocols for mask fit testing and use of emergency notification systems.

In addition to these annual full-scale exercises, CSEPP jurisdictions participated in the Army's quarterly chemical accident/incident response exercises. Throughout the year, county emergency managers also perform all-hazard or other hazard-specific tabletop and functional exercises. CSEPP exercise guidance emphasizes the benefits of a jointly managed Army-FEMA exercise program and provides a specific roadmap for planning, executing, evaluation, and assessment of CSEPP exercises. The *CSEPP Exercise Policy and Guidance* maintains consistency with the HSEEP. Since many HSEEP precepts are already a part of CSEPP, the two communities have experienced little difficulty in adopting HSEEP methodologies. The program's grant guidance encourages all CSEPP-funded personnel to complete HSEEP training.

CSEPP policy emphasizes using peer evaluators during exercises. This initiative encourages emergency managers and first responders from CSEPP sites to travel to other sites to assist in exercise evaluations; more than two dozen individuals took advantage of this opportunity during the two full scale exercises in FY 2014. This approach broadens the knowledge base of evaluators and serves as a method of sharing best practices among program participants. In addition to the actual experiences obtained by the peer evaluators, specific training is offered by FEMA to further expand the knowledge bases of exercise evaluator personnel.

Medical Program



In FY 2014, CSEPP communities maintained and enhanced their capabilities to treat potential victims of a chemical agent release from an Army chemical weapons facility. Pueblo and Blue Grass increased their medical readiness efforts as the start of Army demilitarization operations approached.

The CSEPP Medical Work Group holds open monthly teleconferences to support medical planning, training, and exercising. Personnel from emergency medical services, fire, hospitals, and public health sectors constitute the core members of the work group. Other participants include personnel from the FEMA Regional offices, the U.S. Army Chemical Materials Activity, the U.S. Army Public Health Command, and the CDC. This collaboration enables FEMA and the Army to continually track and support the medical stakeholders in each community. The work group's accomplishments this fiscal year include:

- Supporting the medical and public health components of annual CSEPP exercises;
- Developing the training track for community pre-hospital and hospital personnel; and
- Updating existing medical training curricula in accordance with the 2014 Joint Commission standards and the 2014 Hospital ICS revision.

Approximately 305 students from EMS and hospitals in Colorado and Kentucky attended a range of medical training sessions offered during FY 2014. For example, U.S. Army Chemical Materials Activity and U.S. Army Public Health Command personnel developed a new instructional component on hospital post-disaster recovery planning, with an associated technical report containing an annotated bibliography of related literature.

Personnel



Federal, state, county, and local response capabilities must be maintained with a team of qualified professionals. Experienced people are essential to oversee preparedness planning, implement procedures, and coordinate response actions. CSEPP-funded personnel execute the program on a day-to-day basis, including

working to ensure emergency responders are adequately trained and equipped to complete their missions. During the fiscal year, FEMA evaluated and adjusted Federal employee staffing levels in coordination with Army management to ensure program needs were met. In addition, FEMA provided training to ensure personnel have the knowledge necessary to carry out their mission. Building capacity of program personnel continues to be a CSEPP priority.

Protective Actions



In general, CSEPP supports a balanced protective actions strategy including evacuation and sheltering-in-place as part of on-post and off-post hazard-specific

plans. This approach is zone-based because the most effective and appropriate protective action for a specific incident can vary depending upon the distance from the hazard and the time required for a hazard to arrive.

Sheltering-in-Place

To maximize effectiveness of available protective actions, CSEPP has conducted studies to determine the best way to protect residents during a chemical emergency. The most recent study. the Madison County Special Facility Risk Analysis, focused on newly identified special facilities located within Madison County, including child care centers, outpatient medical facilities and senior citizen facilities. At the time of the study, none of the facilities to be studied had protective measures installed. The study simulated a chemical emergency at BGAD and studied the facilities under a shelter-in-place-only protective action plan. The facilities in question were then tested under two different shelter-in-place." These two measures gave an estimate of current risk as well as the reduction in risk gained by outfitting the facilities with some form of protective measures. This testing and evaluation effort was supported by the U.S. Army Corps of Engineers. CSEPP will use the results of these studies to develop improved protective action decision-making tools that assist local emergency managers to determine protocols for entering and exiting shelter. Quantifying the effectiveness of these protective actions has placed emergency decision-making on a sound, scientific footing.

Residents have been provided shelter-in-place kits to enhance shelter rooms and decrease possible infiltration of chemical agent vapor into their homes. Over the course of the program, CSEPP has distributed more than 100,000 shelter-in-place kits in CSEPP communities. In addition, CSEPP continues to distribute copies of its shelter-in-place training videos to residences and businesses.

Over-Pressurization of Special Facilities

Over-pressurization of special facilities or safe areas, combined with air filtration, is a highly effective method of protecting the public and is implemented where it demonstrably reduces risk. However, because this equipment is integrated into heating and ventilation systems, its removal during the program closeout phase has posed special challenges. In particular, schools and hospitals cannot simply shut down to allow removal of over-pressurization equipment. CSEPP maintains an interagency agreement with the U.S. Army Corps of Engineers to support annual system maintenance in Kentucky as well as closeout activities.

Emergency Responders

According to CSEPP policy, off-post emergency responders should never enter the chemical threat area identified by the hazard model. As an added precaution, CSEPP continues to provide personal protective equipment ensembles (e.g., chemical protective suits, powered air-purifying respirators, gloves, and boots) and the associated mandatory training to response personnel, including those who, for example, manage traffic and access control points. Should there be a

shift in the hazard area due to weather conditions, this equipment can be used as an escape ensemble by these workers. To date, more than 5,000 protective equipment ensembles have been provided to protect CSEPP's emergency workers.

Public Outreach and Education



CSEPP public outreach and education is a critical function of a robust emergency management system. CSEPP funds public information officers (PIOs) at the state level in Colorado and Kentucky, and in the counties closest to the stockpiles. PIOs have two primary responsibilities: to conduct public outreach and education

programs to ensure residents know what to do in the event of a chemical accident and to maintain an emergency public information capability to provide instructions to residents during an emergency. CSEPP provided training throughout the fiscal year consisting of program-specific instruction delivered in CSEPP communities. PIOs also teach FEMA local-level public information courses in their communities.

The CSEPP Public Affairs Integrated Process Team (PA IPT) examines cross-cutting public affairs issues at the two CSEPP sites. The PA IPT is a source of ideas for each community to draw upon for best practices and lessons learned. During PA IPT meetings, PIOs provide case studies of actual emergencies and review the results of CSEPP exercises.

CSEPP PIOs build stronger relationships with local stakeholders by engaging the whole community through presentations to schools and civic organizations and by participating in community fairs and other public events. During FY 2014, Colorado and Kentucky PIOs continued to work with persons with LEP—and the local organizations that represent them—to identify and provide preparedness information to the LEP community. Both sites make CSEPP outreach materials available in Spanish and English, and Spanish interpreters are available for outreach events and program meetings.

Training



During FY 2014, CSEPP classroom training was conducted at state and local levels for participants from the CSEPP communities, as well as personnel from other Federal, state, and local agencies involved in homeland security. CSEPP training is shared with many other communities across the United States in hardcopy formats and through various partner websites.

CSEPP classroom training courses available include:

- CSEPP Orientation;
- CSEPP Chemical Awareness;

- CSEPP EOC;
- Use of Auto-injectors by Civilian Emergency Medical Personnel;
- Response Phase Decontamination;
- Personal Protective Equipment;
- Physician/Emergency Medical Training;
- CSEPP Multi Hazard Medical Training (Train-the-Trainer);
- CSEPP Joint Information Center/System;
- CSEPP Information Technology (Public Affairs and Medical);
- CSEPP Advanced Information Technology;
- CSEPP Spokesperson Training;
- CSEPP Photography in Social Media Formats; and
- CSEPP Photo/Video workshop.

In conjunction with FEMA's Emergency Management Institute, in FY 2014, CSEPP developed and piloted new training on the facilitation of inter-jurisdictional teams. Initially, this modular course will be offered only in the two CSEPP communities. It will then become part of the FEMA training curriculum with an assigned course number.

CSEPP continues to sponsor first responder and first receiver training where continuing education units or continuing medical education units were awarded to those who successfully completed the training. Other training efforts that provide long-term and post-CSEPP benefits to the communities include FEMA's Master Exercise Practitioner Program (MEPP), public affairs, and medical training. CSEPP has now sponsored three iterations of MEPP, including the latest offering in FY 2014. This nationally recognized program has prepared local community emergency management and healthcare leaders to design, test, and evaluate their ability to respond to all-hazards events. There are now 149 MEPP graduates within the CSEPP communities.

VI. Conclusion

Over the last year, FEMA continued its mission to assist communities near the two remaining chemical stockpile sites. Working closely with its U.S. Army and state and local partners, FEMA continued to meet its program goals, with notable improvements in EOCs, interoperable communications systems, and public alert and notification systems. Although these three areas were priorities for the program, existing capabilities under all twelve benchmarks were maintained, and in some cases enhanced, during the fiscal year. CSEPP is positioned to continue its preparedness mission as the Blue Grass and Pueblo sites approach the chemical weapons destruction phase.

A cornerstone of CSEPP is the sharing of best practices, resources, and expertise among all CSEPP communities. This includes the ongoing use of IPTs, in the communities and programmatically, which remain critical to the successful advancement of CSEPP goals and the resolution of new challenges. Looking forward, FY 2015 will be a pivotal year as agent operations are scheduled to begin at the PCD. FEMA remains committed to ensuring the two remaining CSEPP communities are fully prepared to respond to an accident involving the chemical stockpile. This commitment will continue until the stockpile is completely eliminated.

Colorado Virtual Operations Support Team

In their June 2014 report, *Using Social Media for Enhanced Situational Awareness and Decision Support*, the DHS Virtual Social Media Working Group and DHS First Responders Group discussed the rise in popularity of social media and the subsequent explosion in available information during emergencies: "The volume and speed with which available information is disseminated, combined with an inability to identify, verify, coordinate, aggregate, and contextualize it, however, can leave this information unused and ultimately, un-actionable." One tool now used to collect social media information during emergencies is a Virtual Operations Support Team (VOST). VOST is a team of trusted agents who lend support via the Internet to those on-site in an emergency. The volume of data generated during a disaster may overwhelm those on-site, if they have no support. Since 2011, VOST organizations have been established throughout the United States and around the world. VOSTs have been activated for wildfires, floods, and non-emergency activities such as large sporting events.

The Jefferson County Sheriff's Office and the Colorado Department of Public Safety Division of Homeland Security and Emergency Management (DHSEM) have collaborated to form the Colorado Virtual Operations Support Team (COVOST). COVOST has been activated for events such as the 2014 Colorado Floods and the 2014 All-Pro Cycle Tour. The Colorado co-chair of the CSEPP PA IPT conducted a professional development session at a PA IPT meeting to review the concepts of the COVOST with CSEPP PIOs in FY 2014. The training described how the COVOST functions, procedures for recruiting volunteers, activation procedures, and how members receive specific tasks to perform during their duty time. The CSEPP PA IPT is currently discussing how the VOST concept can be employed program-wide.

The COVOST is new to CSEPP, but the concept of CSEPP stakeholders helping each other remotely has been used for over ten years. Originally called a virtual JIC, CSEPP PIOs from across the Program assisted colleagues at other CSEPP sites with various JIC functions during annual CSEPP exercises. Using the technology available at the time, the PIOs would perform functions such as writing news releases and media monitoring. VOSTs are an useful tool for a program that has diminished in size, greatly reducing the number of PIOs available within the program. Virtually tapping the vast resources of a trained personnel pool is a solution used in Colorado and by emergency managers throughout the United States, and beyond.

Appendix A: Colorado

PCD, located approximately 14 miles east of Pueblo, Colorado, where chemical weapons have been safely stored since the 1950s. The depot occupies 23,000 acres and stores 8.5 percent of the original U.S. chemical weapons stockpile in the form of the blister agent mustard in mortars and projectiles.

In addition to Federal partners, the CSEPP in the Pueblo community comprises the State of Colorado, Pueblo County, and the Pueblo City-County Health Department.

Destruction of the stockpile is the responsibility of the U.S. DoD's Program Executive Office, Assembled Chemical Weapons Alternatives, (PEO ACWA) which oversees the Pueblo Chemical Agent–Destruction Pilot Plant (PCAPP). The PCAPP team completed construction in December 2012. The next project stage, known as systemization, is under way. Systemization encompasses all the planning, technical work, training and testing activities required to ensure that destruction operations will run safely and smoothly. Destruction activities at PCAPP are expected to begin in FY 2016.

The U.S. Army's Explosive Destruction System (EDS) will be used to augment the PCAPP destruction operations. EDS will be used to destroy a number of problematic chemical munitions that cannot be easily processed through the PCAPP. These include munitions that have leaked in the past and are now over packed, as well as "rejects," whose deteriorated physical condition does not easily allow for automated processing. Munitions will be destroyed with EDS beginning in FY 2015. Emergency personnel from FEMA, the State of Colorado, and Pueblo County routinely coordinate with PEO ACWA personnel on activities associated with the start of agent operations.

FY 2014 was a pivotal year for the Colorado CSEPP Community as it prepared for the start of agent destruction operations in FY2015. Although the community has planned for the risks associated with the storage of the stockpile, there is an understanding that additional community interest in the program often occurs when agent destruction operations begin. On April 9, 2014, the Pueblo CSEPP Community IPT conducted a review of their capabilities in the CSEPP benchmark areas and confirmed the community remains ready to respond to a chemical agent release.

Listed below are the most significant accomplishments of the year as reported by the Pueblo CSEPP community:

Fiscal Year 2014 Accomplishments

Administration

The Pueblo CSEPP community maintained compliance with all 12 benchmarks in FY 2014. Figure 4 illustrates total CSEPP expenditures (grant dollars and Federal technical support) to support preparedness in Colorado during the last three fiscal years.

FEMA Region VIII, the State of Colorado and Pueblo County hosted a CSEPP Teams Meeting in August 2014 at the U.S. EPA Regional Office in Denver. The meeting brought together IPTs and workgroups for a



Figure 4: Colorado CSEPP Programmatic Spending

series of sessions to discuss CSEPP issues that cut across the entire program. The EPA is a partner in CSEPP. EPA personnel routinely attend site IPT meetings. Hosting the meeting at the EPA offices ensured participants had the space to meet at no additional cost to the government.

Alert and Notification

Colorado CSEPP is a major contributor to FEMA's efforts to implement the IPAWS. Planners converted some existing Pueblo County Emergency Alert Services messages to IPAWS formats in preparation for testing at the Joint Interoperability Test Command. The goal of the testing was to validate equipment configurations, message templates, and procedures. Pueblo County is scheduled to participate in the initial IPAWS tests during early FY 2015.

Communications

Ensuring interoperable communications systems is essential to effective emergency preparedness. Pueblo County is installing an independent zone controller for southeastern Colorado. This technology will allow regional control of emergency responder radios instead of feeding transmissions through the State's offices (while still remaining interoperable with the State system). The project will help eliminate many of the radio "dead spots" that currently exist.

Pueblo County has also upgraded their 911 system to allow for future enhanced features such as receiving 911 messages via text message. The new systems will improve the overall functioning of the county's 911 system.

Coordinated Plans

The Pueblo County Emergency Operations Plan was converted to reflect Emergency Support Functions (ESF). The ESFs provide the structure for coordinating interagency support during the response to an incident. They are mechanisms for grouping functions most frequently used during a response such as Transportation, Firefighting, Public Works and Engineering, and Public Affairs.

The *Colorado CSEPP Recovery Plan* helps local officials lead, organize, plan for, and manage the complex issues of post-disaster recovery under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), the Robert T. Stafford Disaster Relief and Emergency Assistance, and state and local laws. During FY 2014, the community held the first two of five seminars designed to bring together stakeholders to review elements of the Recovery Plan and evaluate its approach. These stakeholders included representatives from various Federal, state, and local agencies and non-government organizations. The first two events in the Recovery Plan series are:

- Colorado CSEPP Recovery Plan Seminar held on January 14, 2014. The objective of the seminar was to acquaint individuals who have the responsibility to implement the Recovery Plan. The 57 attendees received an overview of CSEPP, PCD, and the plan. Then they worked with facilitators in four functional breakout groups to answer and report back on a series of questions. Participant feedback forms indicated the attendees gained a better understanding of the plan and their roles in it.
- Colorado CSEPP Recovery Plan Management Workshop: Command and Control held on June 10, 2014. The focus of the workshop for the 57 participants was a hypothetical reentry and restoration situation. The objectives of the workshop included achieving a common understanding of how Federal, state, and local public or private agencies fit into the Unified Command System and who, in accordance with the Recovery Plan, has decision-making authority. Another objective was determining how community CSEPP recovery objectives are set, how differences in priorities are resolved, and who makes reentry decisions.

The final three events in the Recovery Plan series will be conducted in FY 2015.

Emergency Operations Centers

Construction of the new Pueblo County Emergency Services Center was completed and the County 911 Center transitioned operations to the new facility in March 2014. The Pueblo County Emergency Services Bureau moved into the building on April 2, 2014, and an open house and ribbon cutting ceremony were held April 9, 2014. In addition to the Emergency Services Bureau and 911 Center, the building houses a JIC.

Pueblo County has an "automated guidebook" that will be used by the county's 911 Center in the event of a chemical incident at PCD. When a notification call comes from the PCD Operations Center to the 911 Center, county personnel follow the Protective Action Decision Guidebook to complete the appropriate community notifications. The county is updating this tool to reflect operations at the new EOC.

Upgrades to the Colorado State EOC that increased the State's ability to share situational awareness and support during State disasters were completed in June 2014. The project included new video walls in the EOC and Policy Room, and upgrades to electrical and sound systems.

Exercises

A robust emergency exercise program is essential in evaluating emergency preparedness. The Colorado CSEPP Community Annual Exercise was held on May 6, 2014, in Pueblo. This exercise was the first activation of the new EOC and JIC. Lessons learned from the event were communicated to the Kentucky CSEPP community where new EOCs are under construction and Kentucky emergency managers will be going through a similar process of holding an exercise in a new facility.

The Colorado CSEPP is also planning a tabletop exercise that will focus on automation systems, identifying backup systems and discussing procedures for restoring critical IT systems during a service outage. The initial seminar is planned for the fall of 2014. Lessons learned from the exercise will be shared with Kentucky since they will be beneficial for both communities.

Medical

Three Pueblo area hospitals, Parkview Medical Center–Main, Parkview–Pueblo West Medical Center and St. Mary-Corwin Medical Center, participate in CSEPP preparedness activities. CSEPP provides equipment and technical assistance to communities to enhance medical preparedness for pre-hospital care and in-hospital treatment of patients exposed to chemical agents. During the fiscal year, the following medical provider training was completed:

- Hospital hazardous operations classes;
- ICS Refresher (100-, 200-, 700-, 800-level) classes;
- Hospital ICS training for hospital command staff;
- Personal protective equipment training for fire and law enforcement responders; and
- Patient decontamination training for Parkview Medical Center staff.

Protective Actions

The citizens of the town of Boone live directly south of the entrance to PCD in the Pueblo metropolitan area. This year, CSEPP provided fire suppression and decontamination resources to the Boone Volunteer Fire Department to support these activities in the town of Boone and the area surrounding the community.

Public Outreach and Education

During the fiscal year, the "Prepare Pueblo" campaign continued. This outreach campaign is a blended approach that includes the use of a website, Facebook, Twitter (@PreparePueblo), and paid advertising (theater advertisements, chamber of commerce, radio, newspaper, sports event

banners, and roadside billboards). Strategy, tactics and advertisements were developed by the Colorado CSEPP PIO team, capitalizing on CSEPP-provided training.

Message strategy was developed using survey results and lessons learned from other CSEPP sites. The campaign reminds residents of the importance of preparedness at home, work, and school. Specific topics include "planning begins with you," "know your zone," "how residents will receive emergency messages," and "shelter-in-place and evacuation instructions." In addition to the media listed above, CSEPP messages are distributed to the public through the "Ready Colorado" social media channels. The outreach campaign is targeted to the participating CSEPP communities, but has had an unexpected benefit. Residents from outside the area have seen the advertisements and reached out to their own county emergency management agencies to seek preparedness information and to sign up for automatic alerts from county officials. An innovation during the fiscal year was the first-time use of Quick Response (QR) codes in the annual emergency preparedness calendar. People who scan the QR codes with their mobile phones are taken to various pages on the PreparePueblo.com website. Each month (and each corresponding QR code) focuses on a different CSEPP emergency response zone.

Another important function of CSEPP PIOs is maintaining a capability to deliver emergency information during a disaster. Pueblo County operates a JIC from the new Emergency Services Building that is staffed by county personnel and numerous volunteers.

After the 2014 Annual CSEPP Exercise, the PIOs surveyed their JIC responders to obtain feedback on the exercise, level of interest in JIC training, and overall experience working in the JIC. As a result of the survey, JIC leadership implemented a new monthly training initiative called "First Friday Trainings." The 2-hour training scheduled for the first Friday of each month is taught by the Colorado CSEPP PIOs and local response partners. In addition to the First Friday training sessions, personnel attended regular training on a variety of subjects including joint information system basics, call takers, news writing, media monitoring, and on-camera skills.

As the start-up of agent operations at the PCD approaches, community PIOs are coordinating closely with DoD public affairs officers to ensure that consistent messages are delivered to the public. Special events have been held to allow collaboration between CSEPP PIOs and their DoD colleagues on public outreach events marking the start of agent destruction.

The Pueblo County CSEPP PIO reached out to the community in and around Pueblo County to build a cadre of trained individuals to help with disasters. The 40 members of the Risk Communication Network were recruited from public safety organizations; not-for-profit organizations; hospitals; the business community; and Federal, state, and county agencies. CSEPP offered members specific training to further develop skills relating to their service as PIOs. In addition to participating in CSEPP training and annual exercises, Risk Communication Network members have deployed to assist with other emergencies in their community and in neighboring counties.

Training

FY 2014 was a busy year for training in Pueblo. Through 14 CSEPP sponsored courses, 871 people received training. The majority of these courses was held to prepare for the opening of the new Emergency Services Center and emphasized supporting operations in the new EOC.

The community continued to prepare candidates for the MEPP. The course was designed to improve the capabilities of emergency management exercise personnel in every phase of the exercise process in accordance with HSEEP. Fifty-four individuals graduated from a CSEPP-sponsored offering of MEPP program during FY 2014.

In addition, the Colorado CSEPP community developed a three-year training catalog listing the suggested training (local, state, and Federal) to be completed within a particular emergency management discipline.

Future Planning

The start of agent destruction operations will mark the beginning of the end of CSEPP in Colorado. FEMA Regional personnel and state and local stakeholders have held preliminary discussions on the activities involved in developing and implementing a closeout strategy for the Colorado CSEPP. The community IPT is considering standing up a site closeout work group to manage this multi-year process.

Focus on Kids in Kentucky CSEPP:

A Whole Community Approach to Emergency Preparedness

A 2001 CSEPP public affairs strategy document contained several core concepts to help state and county CSEPP public information officers (PIOs) target public outreach in their communities. One of the core concepts was to focus on kids to help educate all residents on what to do in the event of a chemical incident. Today in Jessamine County, KY, the kids are doing the teaching. A team from the East Jessamine Middle School won first- place in a competition sponsored by The Kentucky Department of Education's Student Technology Leadership Program (STLP). The team's project was to create a training video to help county emergency crews with CSEPP. The video included information on how to use social media to support emergency management during disasters. In April 2014, the East Jessamine Middle School team displayed their project at an STLP competition in Lexington, KY. STLP uses project-based learning principles to empower student learning and achievement through the utilization (and creation) of technology-based solutions to school and community needs.

Jessamine County Middle School Science, Technology, Engineering, and Mathematics (STEM) student volunteers also assisted during the Annual CSEPP Exercise in September 2014. The students were present in the emergency operations center (EOC) and at field activities and established a live video stream from a reception center and decontamination site using a wireless tablet and Skype. Images from the remote locations were displayed on a large video screen in the EOC. This connection allowed EOC personnel to monitor field operations in real time, significantly enhancing situational awareness.

CSEPP staff engage schools, at all levels, to provide emergency planning assistance and information on what to do in the event of all-hazards disasters. Specific examples in Kentucky include regular visits to elementary and secondary schools, new student orientation programs at universities—including emergency preparedness resources for college students—and working with school groups who reach out to persons with limited English proficiency. In addition, students from Eastern Kentucky University (EKU) studying emergency preparedness serve as volunteers during the annual exercise. The EKU students work in the simulation cell during the exercise, making calls to county EOCs. Reading from a script, students simulate an event in the exercise scenario to challenge the players.

Focusing on outreach to kids by cooperating and coordinating with schools is a successful method of community engagement embraced by CSEPP.

Appendix B: Kentucky

Blue Grass Army Depot is located south of Lexington, Kentucky, near the city of Richmond. The depot sits on 15,000 acres. The stockpile is maintained on 255 acres of land near the northern border of the depot. Storage of blister agent began in 1944, and nerve agent storage commenced in the mid-1960s. The safe storage of the chemical stockpile remains an important mission of the Blue Grass Chemical Activity.

Destruction of the stockpile is the responsibility of DoD's PEO ACWA. Construction of the Blue Grass Chemical Agent–Destruction Pilot Plant (BGCAPP) is nearly complete. BGCAPP is being built to destroy the stockpile of nerve agent weapons currently in storage at Blue Grass. The plant will use neutralization followed by supercritical water oxidation to destroy the site's nerve agents. The next project stage, known as systemization, is underway. Systemization encompasses all the planning, technical work, training and testing activities required to ensure that destruction operations will run safely and smoothly.

Construction is also underway for the facilities that will support the use of an Explosive Destruction Technology (EDT) system at the Blue Grass Army Depot. The EDT system will safely resolve a significant challenge by destroying the entire mustard stockpile . The system selected by the DoD was the Static Detonation Chamber (SDC). The SDC uses electricallygenerated heat to detonate the munitions, thus destroying the mustard agent and energetics (explosives).

The Blue Grass Chemical Activity (BGCA) successfully conducted M55 rocket separation operations from March–May 2014. The disassembly of 42 nerve agent rockets allowed for the analysis of the rocket motor propellant and the testing of best practices for continued safe storage and future demilitarization operations. The operation also provided an opportunity for the routine sharing of critical emergency management information—which included the daily work plan and protective action recommendation—between BGCA, the CSEPP counties, and the Commonwealth of Kentucky.

In addition to Federal partners, the Blue Grass CSEPP community comprises the Commonwealth of Kentucky; Madison, Estill, Clark, Garrard, Rockcastle, Powell, Laurel, Jackson, and Jessamine counties; and the Lexington-Fayette Urban County Government (LFUCG).

The Kentucky CSEPP community includes ten counties that have distinct planning zones and sub-zones. Each CSEPP community has designated emergency planning zones. CSEPP zones are defined geographical areas surrounding the chemical depot, defining the areas that are included in the preparedness activities. Zones most at risk from a chemical release are IRZs; these are located in Madison and Estill counties, which are thus referred to as IRZ counties. Zones farther

out from the hazard are designated as PAZs; Clark, Garrard, Rockcastle, Powell, Jackson counties and LFUCG contain some PAZ areas and are thus referred to as PAZ counties. Laurel and Jessamine counties are designated as host jurisdictions. A host jurisdiction is not considered to be at direct risk from a chemical stockpile accident, but participates in CSEPP by providing decontamination and medical treatment, mass care, host facilities, and mutual aid support to atrisk jurisdictions. The zones are subdivided into subzones that would serve an important role in protective action decision-making and public alert and notification in the event of an emergency.

During FY 2011, FEMA commissioned an updated risk assessment study for the Blue Grass community. This study evaluated potential chemical accidents during storage and demilitarization at Blue Grass, meteorological conditions of the area based on historic weather data, local terrain, and the current community protective action strategy. The study concluded that areas of southern Fayette County were at slightly higher risk and some areas of Estill County were at significantly higher risk than originally determined. Consequently, in FY 2012, FEMA and the Blue Grass community revised the Kentucky CSEPP emergency planning zones to add one PAZ in southern Fayette County and to reassign two existing Estill County zones from PAZ status to IRZ status. The Blue Grass community has revised planning zone maps and is currently revising response plans and public education materials to fully implement these changes.

Listed below are the most significant accomplishments of the year as reported by the Blue Grass CSEPP community:

Fiscal Year 2014 Accomplishments

Administration

The Blue Grass CSEPP community maintained compliance with all 12 benchmarks in FY 2014. Figure 5 illustrates total CSEPP expenditures (grant dollars and Federal technical support) to support preparedness in Kentucky during the last three fiscal years.

There was significant activity within the Kentucky CSEPP community during the fiscal year. Through CSEPP, the community is completing the construction and renovation of EOCs, enhancing emergency communication systems, and implementing public outreach activities to inform the public of what to do in the event of a chemical incident.



Figure 5: Kentucky CSEPP Programmatic Spending

At the state and county level, new administrative functions have been implemented to enhance the grant management process. This has been a period of considerable expenditure by local jurisdictions on the construction projects described below. During the fiscal year, Kentucky Emergency Management (KYEM) collaborated with the CSEPP counties to implement a new accounting system that improves visibility of county expenditures and tracks payments in a timely manner to ensure prompt reimbursements to the counties.

Alert and Notification

Estill County has installed seven new sirens (solar-powered for energy savings and sustainability) to enhance alert and notification capabilities. In addition, they are partnering with Madison County to implement a consolidated microwave system that will enhance emergency communication and alert and notification systems in each county. Installation of the equipment was completed in September 2014.

A number of communication towers in Kentucky CSEPP counties received enhancements to the grounding of the electrical equipment. Due to the historical frequency of electrical storms, careful grounding of such equipment is essential to protecting the equipment from lightning strikes.

IPAWS Implementation

The Commonwealth of Kentucky continued to participate in a CSEPP-sponsored pilot program to plan and implement IPAWS. The draft IPAWS Implementation Guide is currently being used by Laurel and Garrard Counties to prepare documents for their IPAWS certificates. KYEM and Fayette County have agreed to participate in IPAWS testing that is currently scheduled for early FY 2015.

Communication

Throughout the year, FEMA works closely with its stakeholder to identify opportunities for improvements to emergency communications systems; analyze the needs for the upgrades; and provide funding for the planning, design and construction of the systems. During this fiscal year, the following projects either were completed or are currently underway.

The Association of Public-Safety Communications Officials Project 25 (P25) repeater replacement project was completed in FY 2014 to meet mandated Federal Trade Commission requirements. P25 is a DHS-approved industry standard that was established to ensure the interoperability of communications equipment manufactured by various vendors within a communications system. This project will allow enhanced communications capability between KYEM and its Federal, state, and local partner agencies even during severe weather. In addition, the Commonwealth of Kentucky is replacing its antenna farm to support emergency EOC operations with a proposed completion in the first quarter of FY 2015.

During the fiscal year, the Kentucky CSEPP counties completed a variety of communications enhancement projects, including 911 telephone systems, radio towers, and equipment grounding.

Coordinated Plans

The Blue Grass CSEPP community formed a work group to develop County CSEPP incidentspecific plans. These are hazard-specific plans that address detailed response actions to a chemical stockpile emergency. They augment the all-hazards emergency operations plans maintained by the state and counties. The workgroup developed a draft incident-specific plan template using an ESF format, which provides the structure for grouping the functions most frequently used by emergency managers during disasters. This effort culminated in a tabletop exercise in July 2014. The plans were completed in draft form for use during the September 2014 exercise. They will be finalized based on lessons learned from the exercise.

Emergency Operations Centers

Commonwealth of Kentucky

The new EOC for KYEM, located on the grounds of the Boone National Guard Center in Frankfort, became fully operational in 2014. The renovated facility houses Commonwealth emergency management personnel, the State EOC, and training and meeting facilities used by CSEPP and other emergency management programs.

Madison County

Madison County's 25-year-old EOC in Richmond is being expanded and modernized to meet current emergency operation needs. When completed, this project will combine the County 911 dispatch center, emergency operations, and emergency management agency offices in one location. Emergency personnel have temporarily relocated to the backup EOC in Berea so that portions of the existing building can be demolished and new construction can begin. The project is expected to be complete in FY 2015.

Clark County

Construction of Clark County's new EOC, which began in September 2013, is expected to be complete in FY 2015. The building will house the EOC and the 24-hour warning point. The project will also include a new radio tower with technology that will enhance emergency communication.

Garrard County

The design of the new Garrard County EOC has been completed. The new EOC will provide space to co-locate the 24-hour warning point and 911 Center. The project is expected to be complete next year.

Lexington-Fayette Urban County Government

LFUCG is planning an expansion of its EOC, which will be constructed within an existing government building. This renovation will provide a modernized facility to centralize all county emergency communications functions (law enforcement, EMS, 911, fire suppression, hazmat, and public works) with the EOC. Partial demolition of the current location has begun and

emergency personnel temporarily relocated to another facility in August 2014. Designs for the project are currently under review and the project is expected to be complete next year.

Rockcastle County

Rockcastle County currently has a new EOC under construction. When complete, it will centralize EOC and 911 communications operations. County officials are currently working with vendors on various technology solutions for the building. Construction is expected to be complete in October 2014 with the agencies occupying the building next year.

Powell County

Powell County completed construction of a new EOC in FY 2014 and the emergency management offices have occupied the building. The building is being equipped for installation of the county 911 Center. The new EOC is designed for rapid, flexible and cohesive disaster management. In addition to the emergency management and 911 Center, the facility has a training room, administrative offices, and new technology.

In addition to the new EOC, a new tower site has been designed to provide coverage for the CSEPP PAZ and IRZ areas in Powell and Estill counties. The tower was completed and is currently being tested before being put into service.

Jackson County

Jackson County has completed design of a new EOC. Construction bids were received in August 2014, and are currently under review. The project is expected to be complete in FY 2015.

Exercises

All Kentucky CSEPP jurisdictions participated in the BGAD quarterly Chemical Accident/Incident Response Assistance and annual CSEPP exercises. The full scale exercise, held September 16–17, 2014, was one of the largest ever conducted, featuring dozens of evaluated locations including 21 schools, 11 decontamination sites, 11 hospitals, 11 EOCs, two day-care centers, traffic control points, reception centers and shelters. Madison County successfully demonstrated its ability to operate out of alternate EOC and JIC facilities.

Protective Actions

As a result of population growth, Madison County requested certain additional institutional facilities—health care facilities, schools, child care centers, and facilities serving people with access and functional needs—be evaluated to ensure current protective action strategies meet the program's maximum protection requirement. Based on an assessment of the risk to these populations, FEMA and Madison County are working together to plan how to provide additional protection for these individuals.

Emergency personnel in Kentucky developed a plan for a chemical event that includes the diversion of I-75 traffic around the CSEPP IRZ and PAZ areas. The planners coordinated with

several authorities and agencies in Lexington-Fayette, Madison, Rockcastle, and Laurel Counties, KYEM and the Kentucky Department of Transportation during the drafting of the plan. During the fiscal year, the Commonwealth of Kentucky updated equipment used to provide instructions to motorists along I-75. This new equipment support updated plans to divert traffic away from I-75 during an evacuation from a potential chemical accident at the depot. KYEM also held exercises of the diversion plan with multiple agencies.

Madison County maintains a confidential, protected database that can be used to locate and assist residents with functional or access needs during emergencies. The annual emergency calendar provided to each household in the county has instructions for residents who wish to provide information for the database.

Public Outreach and Education

The Kentucky CSEPP community has full-time PIOs on staff at the BGAD, Madison County, Estill County, and state CSEPP office. Several other counties have part-time PIOs. The team of public information and public affairs officers engages in a variety of activities to educate residents on what to do in the event of a chemical accident and maintains a capability to deliver emergency public information during disasters.

In March 2013, the Blue Grass CSEPP community launched a media campaign using television, radio, and billboards to increase the public's emergency preparedness. In FY 2014, the "PrepareKY" public outreach campaign continued the work of informing residents about what to do during an emergency. The most recent phase of the campaign used television, radio, and billboards to increase the public's emergency preparedness. The campaign also maintained the PrepareKY.com website that contains all-hazards emergency information. Community PIOs work together to disseminate CSEPP information at fairs, public meetings and other gatherings. CSEPP calendars that are printed in English and Spanish are distributed throughout all 10 counties in the CSEPP community. The calendars include all-hazard information and are mailed to residents in the participating communities.

Madison County, KY, has reached out to the whole community with outreach materials specifically designed for targeted audiences. This past year, the Madison County CSEPP PIO began working with the Journey Community Church in the City of Richmond, KY, where there is a group of Japanese-speaking women. Working with an interpreter from the women's group, the PIO met with the group and provided emergency preparedness information including instructions on how to obtain advisory alert radios (AARs) and shelter-in-place kits. As a follow up, Madison County CSEPP PIO invited the group to tour the EOC to get a first-hand look at the functions of a county EOC and to pick up AARs.

During the past year, Madison County Emergency Management personnel continued their outreach to Spanish speakers in the community. The CSEPP PIO developed a collaborative initiative with the Madison County Schools Migrant Program. The Migrant Program leadership

identified a core group of Spanish-speaking community leaders who regularly meet to discuss school issues. The CSEPP PIO was invited to meet with the group and provide emergency preparedness information that was translated into Spanish. The core group then shared the materials with other Spanish-speakers in the community. Madison County CSEPP PIO attended a picnic for the group where they exhibited displays and distributed emergency preparedness information. The Madison County PIO continues to identify places of worship where services are provided in Spanish to expand outreach to this important community within the county.

Throughout the CSEPP community, PIOs promote emergency preparedness to ensure residents know what to do in an emergency. In Garrard County, a community street fair provided a venue for distributing emergency information. A Fayette County community park held a movie night and showed a CSEPP awareness video before the start of the feature. Estill County continued to use social media to promote emergency preparedness information.

Measuring residents' knowledge of emergency protective actions is important. KYEM assisted the CSEPP counties in developing a web-based survey to determine how residents receive information and their level of understanding of emergency preparedness. The survey results will identify the number of residents who use cellphones or landline telephones and how likely they are to receive outreach messages through social media channels. Specific questions were asked to gauge residents' knowledge of CSEPP-specific emergency preparedness information. The survey results will be used to design future outreach activities.

The community maintains a JIC in Richmond to provide a central location for gathering and communicating emergency information. To maintain readiness, JIC staff received continuous training. During the annual CSEPP exercise in September, the JIC activated to demonstrate their capability to communicate emergency information to the public.

Training

The KYEM training officer collaborated with the community on fulfilling continuing training needs. A yearly calendar documents available training courses and is distributed to all the CSEPP stakeholders. Specific courses completed during the year include public information, NIMS all-hazard, and position-specific training.

Within the next year, Kentucky CSEPP communities will complete several major capital projects and begin operations in their new facilities. Significant training will occur as the emergency operations staffs begin to operate in their new EOCs.

Appendix C: CSEPP Stakeholders

State of Colorado

- Pueblo Chemical Depot
- Colorado Division of Homeland Security and Emergency Management
- Pueblo County (IRZ)
- Pueblo City-County Health Department

Commonwealth of Kentucky

- Blue Grass Army Depot
- Kentucky Division of Emergency Management
- Clark County (PAZ)
- Estill County (IRZ)
- Fayette County (PAZ)
- Garrard County (PAZ)
- Jackson County (PAZ)
- Jessamine County (Host)
- Laurel County (Host)
- Madison County (IRZ)
- Powell County (PAZ)
- Rockcastle County (PAZ)

Appendix D: Acronyms

AAR	Advisory Alert Radio
ACWA	Assembled Chemical Weapons Alternatives
BGCA	Blue Grass Chemical Activity
BGCAPP	Blue Grass Chemical Agent–Destruction Pilot Plant
CA	Cooperative Agreement
CAP	Common Alerting Protocol
CDC	Centers for Disease Control and Prevention
COVOST	Colorado VOST
CSEPP	Chemical Stockpile Emergency Preparedness Program
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
DHS	U.S. Department of Homeland Security
DHSEM	Division of Homeland Security and Emergency Management
DoD	U.S. Department of Defense
EAS	Emergency Alert System
EKU	Eastern Kentucky University
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EPZ	Emergency Planning Zone
ESF	Emergency Support Functions
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
FY	Fiscal Year
HazMat	Hazardous Materials
HSEEP	Homeland Security Exercise and Evaluation Program
ICS	Incident Command System
IPAWS	Integrated Public Alert and Warning System
IPT	Integrated Process Team
IRZ	Immediate Response Zone
KYEM	Kentucky Emergency Management
JIC	Joint Information Center
LCCE	Lifecycle Cost Estimate
LEP	Limited English Proficiency
LFUCG	Lexington-Fayette Urban County Government
MEPP	Master Exercise Practitioner Program
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NIMS	National Incident Management System
OSHA	Occupational Safety and Health Administration
PA	Public Affairs
PAZ	Protective Action Zone
PCAPP	Pueblo Chemical Agent–Destruction Pilot Plant
PCD	Pueblo Chemical Depot

PEL	Permissible Exposure Limit
PEO	Program Executive Office
PIO	Public Information Officer
QR	Quick Response
SMS	Short Message Service
STLP	Student Technology Leadership Program
U.S.C.	United States Code
VOST	Virtual Operations Support Team
WEA	Wireless Emergency Alert



