CSEPP Programmatic Guidance

March 2006

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Office of Infrastructure Protection
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Chemical Stockpile Emergency Preparedness Program

This Programmatic Guidance reflects a coordinated, joint effort between the Department of the Army and the Department of Homeland Security (DHS) to develop guidance and implement policy for executing the Chemical Stockpile Emergency Preparedness Program (CSEPP) at the Federal, State, local, and tribal levels.

In the process of examining the 1996 CSEPP Planning Guidance, CSEPP Policy Papers, and memorandums associated with this program, we have taken the opportunity to thoroughly review and update Army/DHS CSEPP policy documents. A number of CSEPP Policy Papers were cancelled as a result of this review. While this document replaces all existing policy papers, the numbered CSEPP Policy Papers will be retained on the CSEPP Portal for reference and historical purposes. All relevant policies are incorporated in this and other CSEPP documents (such as the *Exercise Policy and Guidance for CSEPP* or "*Blue Book*"). A table to track where the policies now reside is included in Chapter 1. This incorporation does not restrict the generation of future policy memorandums in between biennial reviews of the guidance documents.

The Office of the Deputy Assistant to the Secretary of the Army for the Elimination of Chemical Weapons (ODASA [ECW]) and the Chemical and Nuclear Preparedness and Protection Division of DHS have reviewed and agreed upon the concepts, guidance, and policy statements identified in this plan. The plan is consistent with Department of the Army and DHS strategic plans and guidance, and utilizes the established CSEPP National Benchmarks. We encourage the CSEPP community to continue to improve the Programmatic Guidance by recommending changes. These changes to CSEPP policy and guidance will be added through change sheets.

FOR

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Chapter I—Introduction

This programmatic guide was developed under the direction of the Department of the Army (DA), Office of the Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA[ALT]), and the Department of Homeland Security (DHS), which jointly coordinate and direct the development and execution of the Chemical Stockpile Emergency Preparedness Program (CSEPP). It was produced to provide local, tribal, and State governments, in addition to the military installations, with Army policy, joint Army/DHS policy, and other approved information for the development and coordination of plans and preparations to respond to a chemical accident or incident (CAI) that may occur at chemical stockpile sites within the continental United States.

This programmatic guide includes material drawn from other documents developed by the Army, DHS, and CSEPP's Functional Integrated Process Teams (IPTs) working on distinct areas of the program. All of this material has been developed specifically to outline the Federal CSEPP policies and agreements in place, so that State, local, and tribal governments can develop their programs in accordance with these policies. Nothing in this document should be interpreted as directive in nature or as supplanting existing Federal or State regulations. This guidance will be reviewed on a periodic basis (every two years) to ensure it reflects current policy and practices of the CSEPP community. Changes will be submitted through an ad hoc steering group as the Functional and Site IPTs identify recommendations to update the guidance.

A. Purpose and Scope

This document serves three principle purposes:

- To promote the development and sustainment of an effective, complete, and comprehensive emergency preparedness and response program at each chemical stockpile site by providing guidance and direction to assist local, tribal, State, and installation planners in formulating, coordinating, and maintaining an effective CSEPP program;
- To ensure all local, tribal, State, and installation planners have a single, clear, and understood source of Federal policy and direction to execute their programs in a consistent and efficient fashion; and
- To provide a basis for assessing the adequacy of emergency preparedness and response planning as a part of the evaluation of proposals for Federal grants and funding.

B. Relationship to Planning Guidance

This document is a companion to the *CSEPP Planning Guidance*, which provides guidance and direction to Army installation officials and local, tribal, and State government staff in the development and maintenance of CSEPP emergency plans. The Planning Guidance is primarily aimed at planners and provides

information and guidance specific to emergency planning. The Programmatic Guidance is aimed at program managers and provides information and guidance on program oversight, documentation, staffing, acquisition, and other aspects of program management. In addition, the Programmatic Guidance provides background information about the origins, technical basis, legal basis, and organizational framework of the CSEP Program.

This document does not contain all the information and detailed technical criteria that is required for comprehensive emergency preparedness and response efforts at the Army's chemical stockpile sites. Additional site-specific and technical guidance is available in a number of completed and ongoing studies. This document provides a basis for assessing the adequacy of emergency preparedness and response planning, through the use of the community profiles and installation assessments. These assessments are key to providing justification for proposals for Federal assistance in conjunction with CSEPP, and will be evaluated in terms of compliance contained within this instruction. The Army and DHS/FEMA Memorandum of Understanding (MOU) specifically calls for DHS to develop standards and evaluation criteria against which emergency preparations and response programs can be assessed for adequacy and assurance that they can be implemented.[1] The Army, in turn, agrees to review DHS assessments as to whether offsite plans are adequate and can be implemented.

C. Program Overview

CSEPP is a joint Army/DHS program with a mission to enhance existing local, installation, tribal, State, and Federal capabilities to protect the health and safety of the public, work force, and environment from the effects of a CAI involving the U.S. Army chemical stockpile. As of the end of 2005, 38 counties, one tribal nation, and seven Army installations in nine states participate in CSEPP.

In 1985, Congress directed the Department of Defense (DoD) to dispose of its lethal unitary (pre-mixed) chemical agents and munitions while providing "maximum protection for the environment, the general public and the personnel involved."[2] In 1987, the U.S. Army released a Draft Emergency Response Concept Plan, which presented a basis for the development of local emergency response programs and examined various methods of emergency planning. The Army also prepared a Chemical Stockpile Disposal Implementation Plan, and requested funds to implement enhanced emergency preparedness on-post and off-post for all chemical stockpile sites. FEMA (now DHS) joined the Army in

[1] Memorandum of Understanding between the Department of the Army and the Federal Emergency Management Agency, Department of Homeland Security: Chemical Stockpile Emergency Preparedness Program. 23 March 2004.
[2] Title 14, Part B, Section 1412 of Public Law (P.L.) 99–145.

implementing CSEPP through a MOU signed in August 1988. This MOU was reaffirmed in 1993 and revised in 1997 and 2004.[3]

CSEPP is a project conducted under the Chemical Demilitarization Program (CDP), a major defense acquisition program executed by the U.S. Army. CSEPP augments the Army's installation CAI response capability. The Army is responsible for planning, programming and budgeting CSEPP requirements. The Deputy Assistant Secretary of the Army for Elimination of Chemical Weapons (DASA[ECW]) is responsible for overseeing the CSEPP execution, to include coordination with Congress, DHS, and the Citizen Advisory Commissions. The U.S. Army Chemical Materials Agency (CMA) is responsible for the safe storage and destruction of the chemical munitions and execution of CSEPP on a daily basis (per direction of the Secretary of the Army), to include upgrading on-post response capabilities; developing on-post preparedness plans; conducting on-post training; automation; and integrating on- and off-post capabilities. For the Army's purposes, there is no distinction between emergency response programs executed at a traditional disposal site (incineration) or alternative technology site (Alternative Technologies and Approaches Project [ATAP] and Assembled Chemical Weapons Alternatives [ACWA]). CSEPP addresses all emergency response efforts at all chemical stockpile sites, regardless of the specific program management at that disposal site.

DHS is responsible for oversight of off-post emergency preparedness and works with the State, tribal nations, and local governments in the development and validation of their CSEPP requirements, development of preparedness plans, conducting necessary training, administering CAs, and upgrading response capabilities. Off-post efforts include command and control, public awareness of protective actions, communication, and alert notification systems (e.g., computer hardware and software, telephone and radio upgrades, sirens, and tone alert radios [TARs]). DHS distributes funds to the State and tribal governments through CAs. The State and local governments execute plans to protect the public and provide financial and performance reports, addressing the capability improvements realized through those funds.

D. CSEPP National Benchmarks[4]

In 1993, the Army and FEMA (now DHS) defined a set of national benchmarks to guide the development and assessment of CSEPP capabilities. In 2000, these benchmarks were updated and now number 12 distinct capabilities. These

[3] Memorandum of Understanding between the Department of the Army and the Federal Emergency Management Agency, Department of Homeland Security: Chemical Stockpile Emergency Preparedness Program. 23 March 2004.

[4] Department of the Army and FEMA. CSEPP Policy Paper No. 18: *CSEPP National Benchmarks*. 28 August 2000

benchmarks are similar to and essentially capture the disaster preparedness capabilities of the National Fire Protection Association (NFPA) 1600 standards.[5]

The benchmarks are used to assess and report the status of CSEPP efforts at and around the Army's chemical stockpile sites within the United States. The goal is to achieve full compliance within each benchmark and to sustain this capability throughout the disposal of all chemical agents and materials at each site. CSEPP Program Managers should track the obligation of their CSEPP resources by these national benchmarks to facilitate this reporting. The composition and scope of each benchmark is governed by the principle of "functional equivalency" (i.e., it is not necessary to provide every jurisdiction and every state with identical assets, as long as their basic emergency capabilities meet CSEPP guidance).

The benchmarks are:

- Administrative support (ADM) for each installation, state, and immediate response zone (IRZ) and protective action zone (PAZ) counties;
- Functioning alert and notification system (A&N) for each installation, IRZ, and transition zone;
- Functioning automated data processing system (ADP) connecting critical installation facilities, on-post Emergency Operations Centers (EOCs), off-post EOCs, Joint Information Centers (JICs), and State EOCs;
- Functioning communications system (COM) for IRZ counties and installations, as well as between EOCs, military installations, JICs, and states;
- Coordinated plans (COP) conforming to established CSEPP guidance for each installation, state, IRZ and PAZ county, to be updated as guidance is revised or the jurisdictions' circumstances change;
- Functioning EOC for each installation and IRZ county;
- An exercise program (EX) which is consistent with the Exercise Integrated Process Team (IPT) approved exercise policy;
- A medical program (MED) for medical preparation and response to a CSEPP incident/accident;
- Personnel (PER), such as CSEPP coordinators, public information/public affairs officers, planners, and ADP specialists, to support CSEPP activities on the installation and in the state and IRZ counties;
- Protective action strategy (PRO) conforming to established CSEPP guidance for each jurisdiction;
- A public outreach/education program (POE) for public information and education; and

[5] NFPA. *NFPA Standards on Disaster/Emergency Management and Business Continuity Programs*. 2004.

- Training programs (TNG) consistent with the DHS State Training Plan (for off-post jurisdictions) and Army certification requirements (for on-post installations), and maintained proficiency of emergency services providers/responders and CSEPP staff, as defined and measured by CSEPP guidance.

E. Defining Maximum Protection[6]

Public Law 99-145, the Congressional mandate for the Chemical Stockpile Disposal Program, includes a provision that DoD ensure "maximum protection for the environment, the general public, and the personnel who are involved in the destruction of the lethal chemical agents and munitions…" In that regard, the basic goal of CSEPP is to mitigate the effects of a CAI to the maximum extent practicable. This goal can be achieved in the following ways:

- Through the establishment of comprehensive emergency planning and preparedness programs; and
- Through preventive measures designed to render the stockpile less susceptible to both internally and externally generated accident scenarios.

The efficacy of any protective action strategy (e.g., evacuation, normal shelter, enhanced shelter, overpressurization) or preventive measure (e.g., fire retardation, overpack containers, enhanced monitoring) must be considered in light of the following parameters:

- The cost/benefit associated with the design and implementation of the protective measure; and
- The acceptance of the strategy by the affected community.

Obviously, the most important objective of the emergency preparedness and response process is the avoidance of fatalities to the maximum extent practicable, should an accidental release of chemical agent occur. The precepts set forth in this section should serve as the Army/DHS guidelines to assure that the objective is met wherever possible.

F. CSEPP Policy Papers

This document incorporates all CSEPP policies developed prior to 2005, and represents updates and modifications to approved Army/FEMA policy papers. As a reference, Table 1 identifies where these policy papers have been incorporated into this document. "Retained" indicates where the intent and words of the policy paper are incorporated fully into this guidance. "Modified" indicates where the intent and words of the policy paper have been changed and/or updated to better match currently accepted practices in the CSEPP community. "Cancelled"

[6] Department of the Army and FEMA. *CSEPP Policy Paper No. 1: Definition of Maximum Protection.* 7 May 1991.

indicates that the CSEPP policy has either been discontinued or it has been fully incorporated in existing and approved Army/FEMA documents.

Table 1: Cross-Reference of All Current Policy Papers

Policy Paper Number	Paper Title	Status	Referenced at Page No.
1	Definition of Maximum Protection	Retained	5, 25
2	Environmental Sampling to Determine Chemical Agent Contamination	Retained	32
3	Not issued	N/A	N/A
4	Roles and Responsibilities of Joint Steering Committee Subcommittees	Cancelled	N/A
5	County Public Information Officers for CSEPP	Cancelled	N/A
6	Not issued	N/A	N/A
7	Interim Policy Regarding Off-Post Meteorological Towers for CSEPP	Retained	28
8	Review of CSEPP Exercise Initiating Events	Cancelled	N/A
9	Public Information in Connection with CSEPP Exercises	Retained	47
10	Not issued	N/A	N/A
11	Compensation for Volunteer CSEPP Exercise Participants	Retained	56
12	CSEPP Exercises	Cancelled	51
13	Elimination of Dual Exercise Types	Cancelled	N/A
14	Designation of Public Affairs as Core Objective	Cancelled	N/A
15	Off-Post Medical Preparedness Capability	Modified	40
16	CSEPP Modified Exercise Schedule	Modified	51
17	Protocols for Communication with Army SBCCOM CSEPP Technical Support Staff	Modified	28
18	CSEPP National Benchmarks	Retained	3
19	Community Profile	Retained	57
20	Adoption of Acute Exposure Guidelines (AEGLs)	Retained	25
	HQDA CSEPP Termination Policy	Modified	63
	Joint Memorandum on Integrated Process Teams	Retained	12

G. Strategic Plan

The Government Accountability Office (GAO) recommended[7] the Chemical Demilitarization Program have an overall strategy that articulates the program's mission and vision, identifies the long-term goals and objectives, delineates the roles and responsibilities of all Federal offices, and establishes near-term performance measures in accordance with the Government Performance and Reporting Act (GPRA). The GPRA calls for Federal agencies to improve their effectiveness and public accountability "by promoting a new focus on results, service quality, and customer satisfaction."[8] The Army and DHS HQ staff developed a six-year joint *CSEPP Strategic Plan*,[9] develop annual joint *CSEPP Performance Plans* and respective annual reports to Congress to satisfy the GPRA requirements.

The Army and DHS/FEMA *CSEPP Strategic Plan* addresses the goals of CSEPP over a six-year period, and will be updated at least every two years to ensure its accuracy in guiding the CSEPP effort. The *Plan* is intended to be the basic framework from which subsequent plans will outline, in greater detail, Federal execution of CSEPP and actions undertaken at the State, local, and installation level. It includes a comprehensive mission and vision statement; a general description of goals and objectives and how these will be achieved; a description of performance measures (indicators) used; and identification of key factors that could affect achievement of the general goals and objectives.

CMA and CSEPP develop *Performance Plans* to guide the execution of the program and Federal support to State and local governments, respectively. These plans are updated annually and address the next fiscal year, providing detailed and year-specific content based on the broader strategic plan. The performance plans include specific performance goals and measures for the fiscal year; a description of the processes and skills, the technology, human resources, and other resources needed to meet the goals; and a description of how the results will be verified and validated. This should not be confused with the State and local governments' responsibility to develop work plans and budget requirements.

The *Performance Plans* are linked to the budget—the objectives are based on funding that is expected to be available to reach these targets. Performance goals should be expressed in an objective and quantifiable manner that allows for an accurate and independent determination whether the program is successful. The performance measures and goals are developed with the desire to avoid burdening

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[7] Chemical Weapons: Sustained Leadership, Along With Key Strategic Management Tools, Is Needed to Guide DOD's Destruction Program, GAO-03-1031 (September 5, 2003).
[8] Government Performance and Results Act (GPRA) of 1993. Available online at http://www.whitehouse.gov/omb/mgmt-gpra/gplaw2m.html#h1.
[9] Department of the Army and DHS/FEMA. *CSEPP Joint Army/FEMA Strategic Plan*. October 2004.

State and local governments with data collection tasks. The P*erformance Plans* are developed in accordance with accepted GPRA guidelines.

The annual reports to Congress submitted by the Army and DHS (on the overall Chemical Demilitarization Program and CSEPP, respectively) represent the annual performance reports discussed in the GPRA. The annual reports review the success of achieving the previous year's performance goals; evaluate the performance plan for the current year in light of last year's successes or failures; provide explanations for failures to meet goals; and include summaries of program evaluations completed during the preceding year.

Chapter II—Program Execution

The successful execution of CSEPP relies on a combined and synergistic effort between local, installation, tribal, State, and Federal agencies to develop robust emergency preparedness and response capabilities at each chemical stockpile site. CSEPP augments installation response capabilities and ensures coordination with off-post emergency managers and responders. This chapter outlines the roles and responsibilities of the major stakeholders and the planning, programming, budgeting and execution system of resource allocation.

A. Federal Roles and Responsibilities

The Army and DHS jointly manage and execute the CSEPP. By agreement and Federal law, DHS is responsible for managing and directing the off-post aspects of the program, while the Army retains responsibility for on-post aspects. These responsibilities are outlined in an Army/DHS MOU, last updated in 2004.[10] The Under Secretary of Defense for Acquisition, Technology and Logistics (USD[ATL]) is the overall milestone decision authority of the Chemical Demilitarization Program (CDP), of which CSEPP is part.

Figure 1 outlines the DoD and Army coordination in this program.

Army Responsibilities

The ASA(ALT) serves as the Army Acquisition Executive and is responsible for Secretariat-level policy, direction and oversight of the CDP. This includes responsibility for all planning, programming, budgeting, and execution actions, excluding acquisition efforts involving the Assembled Chemical Weapons Alternatives (ACWA) program. The Deputy Assistant Secretary of the Army for Elimination of Chemical Weapons (DASA[ECW]) serves as the ASA(ALT) principal advisor for the CDP, providing daily oversight, advice and status of all facets of the program. As CSEPP is part of the overall CDP, the Army is the lead Federal agency responsible for developing, funding, and executing CSEPP at the local, installation, tribal, and State level.

The Director of CSEPP is the principal advisor to the DASA(ECW) on all CSEPP efforts and is responsible for coordinating between the Army and DHS, in addition to interagency coordination within the Army. This office makes all Army policy decisions, to include programming and budgeting, for CSEPP at the secretary level.

[10] Memorandum of Understanding between the Department of the Army and the Federal Emergency Management Agency, Department of Homeland Security: Chemical Stockpile Emergency Preparedness Program. 23 March 2004.

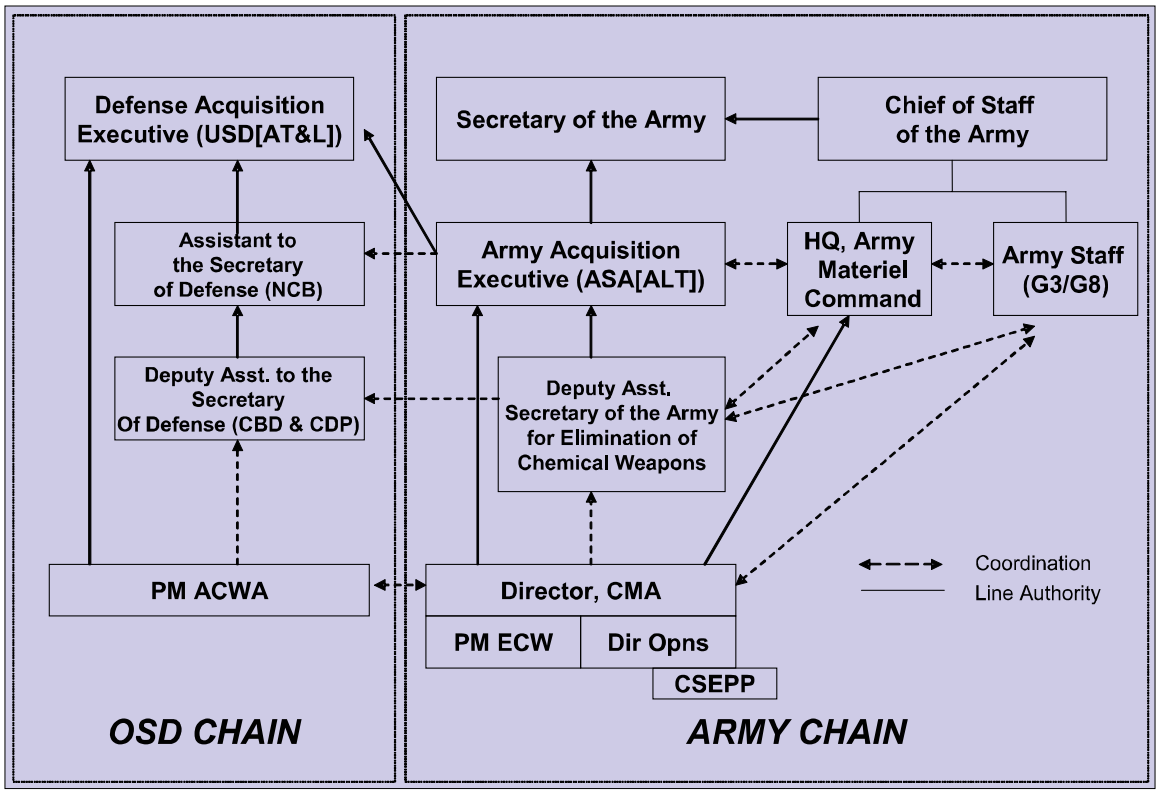

Figure 1: DoD Organizational Chart for Chemical Demilitarization Program

Army G-3 (Office of the Deputy Chief of Staff for Operations and Plans) has overall responsibility for the Army Chemical Surety Program, to include establishing Army policy for Chemical Accident or Incident Response and Assistance (CAIRA) and for protecting chemical surety material in accordance with Army Regulation (AR) 50-6.[11] Army G-3 also has operational responsibility over the Response Force procedures and CAIRA exercises defined in Department of the Army Pamphlet (DA PAM) 50-6 (see additional discussion Chapter IV).[12]

Headquarters, Army Materiel Command (HQ AMC) has Major Command oversight for chemical stockpile storage and Chemical Materials Agency's (CMA's) installation CSEPP operations. HQ AMC is responsible for coordinating the conduct of the biennial Service Response Force Exercise (SRFX) at one of the chemical stockpile sites.

The CMA, a major subordinate command under the AMC, provides for safe and secure storage of the chemical stockpile and safely destroys all chemical warfare

[11] Headquarters, Department of the Army. *AR 50-6: Chemical Surety*. Washington, D.C.: HQDA, 26 June 2001. Available online at http://www.apd.army.mil/pdffiles/r50_6.pdf.
[12] Headquarters, Department of the Army. *DA Pamphlet 50-6: Chemical Accident and Incident Response and Assistance (CAIRA) Operations*. Washington, D.C.: HQDA, 26 March 2003. Available online at www.army.mil/usapa/epubs/pdf/p50_6.pdf.

and related material. Their mission also includes ensuring viable on-post CAIRA plans are in place and are assessed in conjunction with DHS assessments of off-post emergency response plans. CMA has a Director of CSEPP, who is responsible for day-to-day planning, budgeting, and executing the on-post portion of CSEPP. CMA provides funding to DHS at the beginning of each fiscal year based on the approved program life cycle cost estimate (LCCE), adjusted for the actual Congressional appropriation. CMA provides technical support and expertise to assist DHS in implementing off-post chemical agent emergency preparedness procedures. This can include the development, review, and/or conduct of training on chemical agent materiel characteristics and agent-specific emergency response procedures. CMA is responsible for the conduct of site-specific risk analyses, used in defining readiness and funding requirements for site-specific chemical agent emergency preparedness programs.

DHS Responsibilities

The Chemical and Nuclear Preparedness and Protection Division is the focal point for all CSEPP actions and policy development within DHS, having total authority, responsibility, and accountability for working with State, tribal, and local governments to develop their off-post emergency preparedness for responding to CAIs at the chemical stockpile storage installations. This office makes all DHS policy decisions for CSEPP at the secretary level. DHS administers all funds to the State, tribal, and local governments to support off-post emergency response preparedness, and works closely with State, tribal, and local governments to develop policies and procedures to assist in developing and assessing readiness at each site as necessary. DHS provides emergency management assistance, liaison, and functional expertise in integrating on-post/off-post emergency response, in addition to providing technical expertise to the State, tribal, and local governments in the development of off-post emergency preparedness plans, including upgrading community response capabilities and conducting necessary training. DHS also supports the development of training for State, tribal, and local governments for planning, mitigation, and emergency response and the provision of technical support in the development of site-specific emergency preparedness programs.

DHS/CSEPP has five regional field offices. Regional staff work directly with the State, tribal, and local governments to help plan for disasters, develop mitigation programs, and meet needs when major disasters occur. With respect to CSEPP, DHS supports the development and validation of the State, tribal, and local government CSEPP annual budgets and LCCE updates, and works side-by-side with off-post communities to develop CSEPP plans and improve their overall preparedness for any potential CAIs.

Areas of Collaboration

The Army and DHS work together to jointly develop a readiness posture at the stockpile storage installations and in the surrounding communities based on assessments, validated requirements, and available resources at the earliest

practicable date. The two agencies use site-specific risk analyses in conjunction with defining readiness and funding requirements for site-specific emergency preparedness programs. Both provide reciprocal technical support for joint initiatives as well as initiatives requested by installations and State and local governments. They collaborate in the preparation of a joint LCCE for CSEPP, which includes on-post and off-post emergency preparedness program funding requirements as well as technical support funding requirements. This facilitates the preparation of Army and DHS CSEPP budget submissions to be presented and defended before Congress each year.

Much of the success of this collaborative approach to decision making and problem solving is executed through the use of site and functional IPTs.[13] These IPTs allow the Army, DHS, Federal, State, tribal, and local CSEPP personnel to address integration and compatibility of on-post and off-post emergency preparedness and response procedures, including information and communication systems. In general, there are three types of IPTs: site, working, and functional. Site IPTs address site-specific operational issues, propose solutions to those issues to the appropriate decision-makers, and implement programmatic and operational decisions. Working IPTs are established as needed to resolve distinct technical issues within a limited timeframe. Functional IPTs are established as needed to make recommendations and develop proposed solutions on functional issues that affect national operational or programmatic policy.

In concert with functional IPTs, the Army and DHS personnel assess and improve the effectiveness of Federal, State, tribal, and local response systems and procedures through the design, conduct, and evaluation of exercises; collaborate to maintain and improve the CSEP Program through development and conduct of training; design, conduct, and evaluation of exercises; public information and education programs; and a medical readiness program. Figure 2 outlines the collaborative process of how all the stakeholders work with each other to execute CSEPP.

[13] Public Law 104-201 (National Defense Authorization Act for FY 1997), Section 1076, dated September 23, 1996, directs the Army to use IPTs as a management tool for CSEPP. Also see HQDA/FEMA Joint Memorandum for the Record, *Use of Integrated Process Teams (IPTs)*, dated 21 May 1998.

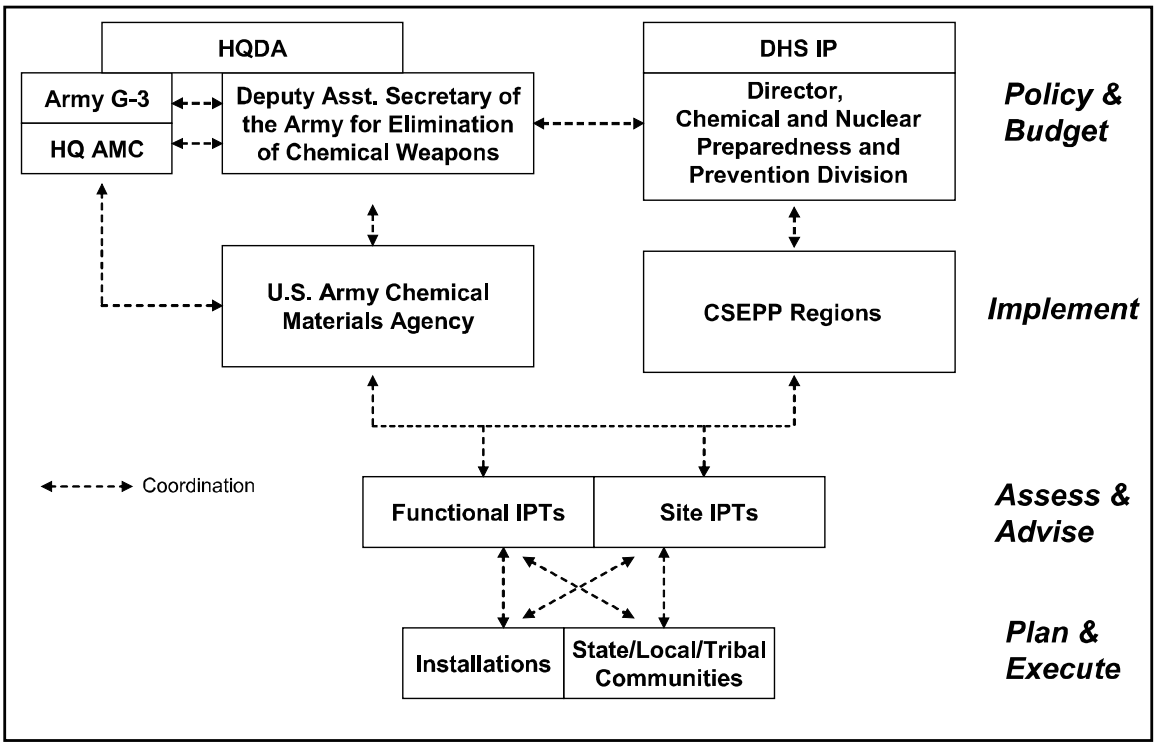

Figure 2: CSEPP Collaborative Process

All Functional IPTs (also called National IPTs) may undertake self-assessment and planning processes that yield an Annual Roadmap by the end of the first quarter of the Federal fiscal year. These activities and plans are then jointly coordinated and resourced by Army and DHS CSEPP leadership. All new Functional IPTs may receive formation training and technical assistance. The CSEPP Team Toolkit[14] and *CSEPP's Teams: Best Practices and Lessons Learned*[15] discuss the best practices and lessons learned and are available for use by all CSEPP IPTs. Tailored, short-term training and technical assistance are also available to all IPTs through the Army chain of command.

B. State, Tribal, and Local Government Roles and Responsibilities

State, tribal, and local governments are responsible for managing the day-to-day operations of the off-post CSEP Program. These agencies must develop and maintain emergency response plans and procedures; train and qualify people to sustain and implement emergency response plans and procedures; and coordinate response actions in response to a CAI. They must develop appropriate work plans and identify the resources necessary to execute such actions. This includes

[14] Available online at http://www.cseppportal.net/Secure/documents/IPTs_Workgroups/General/CSEPP_Toolkit.pdf

[15] Kunz and Company, Inc. *CSEPP's Teams: Best Practices and Lessons Learned*. Prepared for the U.S. Army and FEMA Chemical Stockpile Emergency Preparedness Program. September 2004. Available online at http://www.cseppportal.net/Secure/documents/IPTs_Workgroups/General/Team%20Study%20Report.pdf

executing periodic management tasks required to track and support the adequate training and equipping of emergency responders to complete their missions.[16]

State, tribal, and local governments must execute the off-post CSEP Program using a strong core of professionals. Program managers develop staff work plans and estimate life cycle costs for all required personnel, supplies, equipment, contracts, and projects. They create and negotiate annual CSEPP budgets, using the LCCE and CSEPP Cooperative Agreement (CA) Tools software.[17]

Each installation and IRZ county must maintain a functioning EOC to provide direction and support to the emergency responders. These EOCs must be adequately equipped to support communications to and from higher, lower, and adjacent agencies, allowing personnel to warn the general public, plan and execute required protective action strategies and response actions, and coordinate re-entry and recovery of areas affected by a CAI.[18]

C. Planning, Programming, Budgeting, and Execution System of Resource Allocation

For CSEPP, the planning portion of the Planning, Programming, Budgeting, and Execution (PPBE) System are those emergency preparedness plans that have been developed by the State, tribal, and local governments in accordance with Federal, State, and local guidance. The states' requirements for resources to support these plans are contained in LCCEs, validated by DHS, and funded by the Army. Installations must similarly evaluate their needs and submit their requirements in LCCEs through CMA. The PPBE process for CSEPP funds must be accomplished promptly and efficiently, while ensuring that funds are executed against validated requirements. Understanding the PPBE system is important for State and local governments in particular. Late submission of any requests, regardless of the critical nature of the request, will imperil the Army's ability to fund them. Since the overall budget submission cycle is relegated by DoD and subject to Congress's timetable, the Army cannot promise the successful funding of any validated requirement not submitted within the timeframes required.

PPBE is a continuous process that results in the annual submission of the President's Budget to Congress for approval. There are at least two phases of PPBE ongoing at any given time. The PPBE addresses the Future Years Defense Program (FYDP), which looks ahead six years (e.g., 2008-2013), as well as the current (2006) and upcoming budget execution year (2007). The current year shows resources being executed, and is locked against any additional budget

[16] CSEPP National Benchmark #9: "Qualified Personnel"—Hire personnel to support CSEPP activities on the installation and in the state and immediate response zone counties.
[17] CSEPP National Benchmark #1: "Administrative Support"—Plan and execute administrative support for each installation, state, and immediate response zone and protective action zone county.
[18] CSEPP National Benchmark #6: "Emergency Operations Centers"—Develop and maintain functioning emergency operations centers for each installation and immediate response zone county.

requests (see Figure 3). There is some flexibility during execution years to allow for financing unfunded requirements to meet unforeseen needs or changes in operating conditions, but there are severe restrictions on spending for purposes other than those originally justified and approved. The next year is the budget year, listing resources requested in the President's Budget being reviewed by Congress. The first phase in the PPBE system is the planning phase.

Point in Time	Sunk Cost Fiscal Years	Current Fiscal Year	Budget Fiscal Year	Program Fiscal Years	Cost to Complete Fiscal Years				
Oct 05	1988-2005	2006	2007	2007-2011	2012	2013	2014	2015	2016
Oct 06	1988-2006	2007	2008/2009	2008-2013	2014	2015	2016		
Oct 07	1988-2007	2008	2009	2009-2013	2014	2015	2016		
Oct 08	1988-2008	2009	2010/2011	2010-2014	2015	2016			
Oct 09	1988-2009	2010	2011	2011-2014	2015	2016			
Oct 10	1988-2010	2011	2012/2013	2012-2015	2016				
	Prior Years	**Funding Years**			**Planning years**				
	Total Life Cycle Cost Estimate								

As reqd	**Planning**	Life Cycle Cost Estimate > Army Cost Position > Approved Acquisition Program Baseline
May-Aug	**Programming**	Approved Funding for 5/6 years out. Program Objective Memorandum (POM) updated every two years; amended the second year.
Sep-Jan	**Budgeting**	Approved President's Budget, first year or two from the approved Program Funding. Updated every two years; amended the second year.
Oct-Sep	**Execution**	Upon Appropriation by Congress, obligate and disburse in accordance with laws, policy and regulation.

Figure 3: Life Cycle Cost Estimates and PPBE

Planning

The emergency preparedness plans developed by State agencies and tribal and local governments become the basis for determining funds needed to meet and sustain full compliance as defined by the Community Profile process. State, tribal, and local government funding needs are translated into line item requirements entered into the appropriate CSEPP National Benchmark (see discussion on the National Benchmarks in Chapter I) in their respective LCCE. These LCCEs are validated by DHS and submitted to the Army for inclusion in the chemical demilitarization programming documents. The Army simultaneously plans out their CSEPP requirements for their installations.

Programming

The programming phase of the PPBE process is where available resources are matched against out-year requirements. The Program Objective Memorandum (POM) is the primary document used to submit programming proposals. State, tribal, installation, and technical support LCCEs are used to build the CSEPP portion of the chemical demilitarization POM submission.

The POM for Fiscal Years (FY) 2006–2011 was developed in 2004 for the President to submit to Congress in February 2005. These years (FY 2006–2011) are called the program years. In the POM submissions, the Army can, as needed, move program year resources between appropriations and program elements, but

not between years. The budget must stay within the total obligation authority set by DoD. During the programming phase, the budget is reviewed against Congressional language, the approved Army cost position numbers, and the updated LCCE changes. Once the six-year budget is formulated, it is submitted through ASA(ALT) and the Deputy Assistant to the Secretary of Defense, Chemical Biological Defense and Chemical Demilitarization Programs (DATSD[CBD&CDP]) to the USD(AT&L) for inclusion in the DoD POM. The Office of the Secretary of Defense (OSD) Defense Resources Board reviews the POMs, and the results of their review are documented in Program Decision Memorandums.

Budgeting

The budgeting phase addresses the years to be justified in the President's Budget (including the current and upcoming execution years). While Congress is deliberating the CSEPP budget submissions, State agencies, tribal and local governments are preparing their next year budget requests using items from their latest LCCE as their starting point. These requirements are entered into the CA Tools software and forwarded to the State government agency responsible for CSEPP. After State review and validation, the CSEPP requirements are forwarded through CSEPP regional field offices to DHS HQ for validation at the Federal level (see *Guidance for Preparing and Managing the CSEPP CA Application* published each year by DHS HQ).[19] The Army installations perform a similar analysis of their CSEPP requirements, turning in a budget for those funds required to sustain emergency response capabilities for their next budget year.

Execution

Current year budget execution begins on October 1. During execution, funds are allocated, obligated, and expended to accomplish CSEPP plans. After Congress approves, the President signs the Defense Appropriation bill, and the funds for the executing year are released, the Army sends the off-post funding to DHS, who in turn awards the funds to the states through CAs. All operations and maintenance funds must be obligated within one year (unless a longer period of time is authorized in the Appropriations Act), while procurement funds must be obligated within three years. The grantees/sub-grantees account for their expenditures and send the reports to DHS. In the event that all funds are not obligated by the end of the fiscal year, there is the possibility that these funds can be reallocated to address unfunded requirements identified by the states, local communities, and the installations. This is by no means a guarantee of the ability of the budget to accommodate unplanned funding emergencies that arise. The Army and DHS will work together to address unfunded requirements as best they can, given the reallocation process and the availability of funding.

[19] Office of Financial Management and the CSEPP Program Office. *Guidance for Preparing and Managing the CSEPP CA Application, FY 2006*. June 2005.

D. Interoperability and Standardization

Incident management and emergency responder organizations at all levels rely on various types of equipment to perform mission essential tasks. A critical component of operational preparedness is the acquisition of equipment that will perform to certain standards, including the capability to be interoperable with equipment used by other jurisdictions. At the national level, the National Incident Management System (NIMS) Integration Center (NIC) is tasked to facilitate the development and/or publication of national standards, guidelines, and protocols for equipment certification. This is an on-going process that will be implemented over a period of time. State and local jurisdictions will need to monitor the NIC to comply with equipment standards as they are published. Equipment standards serve multiple purposes including:

- Establishing baseline capabilities and limitations for currently available equipment;
- Guiding equipment procurement decisions; and
- Enhancing interoperability between response agencies.

To accomplish interoperability and utilize these standards, community representatives must play a key and integral role in all facets of equipment acquisition. Assessment of responder roles, mission definition, and prior planning are essential to ensuring equipment acquisitions will support anticipated needs. A community should first complete a thorough assessment that identifies the most probable roles and missions of their responders. Rather than try to prepare for every eventuality, the community should determine the most credible and likely scenarios and responder roles as a basis for planning and equipment acquisition. This assessment can only occur through a coordinated communication and planning effort involving emergency response organizations and emergency planning officials. The results of this effort can then be applied to assess the equipment capabilities and operational practices and procedures with which the equipment must fit. Equipment should never be purchased unless a clear plan for its use within CSEPP is established.

Responder roles drive equipment needs. For example, emergency responders staffing traffic control points (TCPs) near the edge of a risk boundary and hospital emergency room workers will have different requirements with regard to protection, portability, weight, and duration of use for protective equipment.

The following factors should be considered in the course of equipment selection:

- Consider and plan for custom batteries or power supplies that may be required.
- Consider the environmental factors for perishable items, such as batteries. Deterioration can occur quickly in climatic extremes.

- Do comprehensive “power planning” to look at the power needs of the total response capability.
- Pay particular attention to the combination of monitoring/diagnostic equipment and environmental factors such as climate control, lighting, refrigeration, and information equipment/computer support.
- When selecting durable equipment, consider the needs of durability, appropriateness for field use, and whether the item is disposable or if it can be decontaminated.
- Remember to budget for the routine maintenance of equipment as specified by the manufacturers.

Chapter III—Technical Background

Effective emergency response planning under CSEPP requires an adequate technical understanding of the chemical agents and materials involved and the way they are stockpiled. This chapter describes aspects of the chemical agents and stockpiles pertinent to emergency planning. The stockpile is described in terms of the relative amount of agent stored at each location, the various munitions and containers in which the agents are stored, and the general physical characteristics of the storage areas. This section also addresses related technical systems including automated data processing systems, meteorological instrumentation, and assistance available from CMA.

A. Properties of Chemical Agents

The agents of primary concern in this guidance are the nerve agents GB and VX, and the blister agents H, HT, and HD.[20] The chemical and physical properties of these agents have a direct bearing on emergency planning and response. The chemical and physical properties determine the agents' volatility, behavior in fires, and persistence in the environment. Agent toxicity determines the impact on human, animal, or plant life. All community and installation EOCs should maintain copies of the Material Safety Data Sheets (MSDS) on these agents.[21]

Physical and Chemical Properties

All of the agents are liquids at normal indoor temperatures, although most sulfur mustards (H and HD) freeze at ambient temperatures below 13 to 15°C (55 to 59°F). The sulfur mustard agent blend, HT, freezes at ambient temperatures below 0 to 1.3^{o}C (32 to 34.3^{o}F). The mustard agents have relatively high boiling points (215 to 217°C or 419 to 423°F for agents H and HD and the boiling point for agent HT is greater than 228°C, or 442°F). However, the mustard agents have significant vapor pressures at ambient temperatures; therefore, mustards pose an inhalation hazard at higher ambient temperatures.

In pure form, the nerve agents (GA, GB, and VX) are usually odorless, colorless (agent VX may be pale amber), and tasteless. GA and GB are non-persistent nerve agents that primarily present a vapor hazard since they can be carried downwind quickly. Under most release and meteorological conditions, GA and GB produce the greatest downwind hazard distance when compared to other agents in the stockpile. Thermal decomposition of GA and GB begins at approximately 130°C (266°F), and they completely decompose in 2.5 hours at 150°C (302°F).

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[20] Nerve agent GA and blister agent Lewisite (L) also are stored in small quantities at one stockpile location. Agents GA and L present a relatively small planning concern.

[21] For VX see http://www.gulfweb.org/bigdoc/report/appvx.html.
For mustard see http://www.gulfweb.org/bigdoc/report/apphd.html.
For sarin see http://www.gulfweb.org/bigdoc/report/appgb.html

Nerve agent VX is a persistent agent that presents both a vapor and a percutaneous (skin absorption) threat. VX is not very volatile, so it presents much less vapor hazard than GA and GB; however, it is 100 times more toxic by the percutaneous route. Therefore, if VX is aerosolized due to an explosive release, it presents a percutaneous downwind hazard. In practical terms, a toxic dose of VX is more likely to result from skin rather than respiratory exposure; however, all nerve agents are sufficiently volatile to pose an inhalation hazard. At concentrations of 30 mg/m3 (milligrams per cubic meter) or greater, VX median lethal inhalation doses can be attained in a few minutes.

Persistence of chemical agents in the environment varies with the agent, the environmental medium, and other conditions such as pH and temperature. Blister agents (H, HD, and HT) and the nerve agent VX persist in soils and on vegetation, although the persistence varies. Nerve agents GA and GB degrade within a relatively short period. Mustard agents can permeate ordinary rubber and may permeate other protective materials over time, but are not regarded as water contaminants due to their low solubility.

Public Health and Environmental Impacts

If chemical agents are released, severe human health effects and environmental impacts could result. The magnitude of the impact would depend on a number of variables: the amount and type of agent released; the method of release (e.g., spill or explosion); meteorological conditions; the number of unprotected people potentially exposed to the agent(s); distance from the chemical event to the unprotected individuals; age, gender, and health of exposed populations; route and duration of exposure; and timeliness of decontamination and medical treatment.

Agent effect dose-rate values are based on the assumption that the majority of the dose is absorbed by inhalation and that the individuals exposed are wearing clothing. In the case of VX, the lethality estimates for human exposure through the skin change dramatically as a function of the amount of clothing worn and the wind speed. Although the majority of the potentially exposed population would be expected to be clothed, many individuals would be expected to have portions of their bodies exposed. Thus adjustments to the toxicity levels should be made in some modeling applications for civilian populations. Certain members of the population may be more susceptible to agent exposure, (e.g., infants, the elderly, and individuals debilitated by chronic disease).

In addition to the concern over acute and chronic human health effects, emergency response planning must consider impacts on the environment, drinking water sources, food supplies, and other natural resources. Additionally, environmental contamination would affect the time period required before evacuated personnel could begin to re-enter the possibly affected area after termination of the immediate airborne health hazard.

Data on persistence of chemical agents indicate attention should be given to potential effects on food supplies, livestock, and croplands. It is very unlikely that such contamination would occur, but State and local emergency responders should be prepared to address public perceptions of potential contamination of food, livestock, and croplands. Contamination of public water supplies should be of concern only if a spill of liquid agent occurred directly into the water body. Groundwater supplies could be affected if there was a direct spill or leak into a well or spring. Such releases are extremely unlikely. Persistent chemical agent (e.g., sulfur mustard or nerve agent VX) contamination of land surfaces, while highly unlikely beyond installation boundaries, poses a threat of potential contamination to the surface of exposed food items (e.g., fruit or leafy vegetables) in areas where high-level plume deposition could occur. Toxic effects to grazing animals can be expected from ingestion of forage, or dermal contact with objects contaminated by the persistent chemical agents. The volatile G-agents are not considered a source of significant surface contamination.

B. Chemical Stockpile Sites

Chemical warfare agents and materials were originally stored at eight continental United States (CONUS) Army military installations: Deseret Chemical Depot, Utah; Pine Bluff Arsenal, Arkansas; Umatilla Chemical Depot, Oregon; Pueblo Chemical Depot, Colorado; Anniston Army Depot, Alabama; Aberdeen Proving Ground, Maryland; Newport Chemical Depot, Indiana; and Blue Grass Army Depot, Kentucky (see Table 2). Aberdeen is no longer an active storage site.[22] The chemical agents are stored in three basic configurations:

- Projectiles, cartridges, mines, and rockets containing propellant and/or explosive components;
- Aircraft-delivered munitions that do not contain explosive components; and
- Steel one-ton containers.

Most of the stockpile is in the last form. All of the agents are at least 37 years old; some are more than 50 years old.

Chemical agents and munitions are stored in a specific limited area at each installation. The stockpile is kept on pallets, in boxes, or in cans, and is stored in earth-covered bunkers ("igloos") specifically designed to contain the force of an explosion. The igloos have lightning protection systems and steel doors and are equipped with multiple locking systems. Usually, only a single, agent-specific munition type is stored in an individual igloo (e.g., VX rockets in one igloo and

[22] As of 2005, all of the original stockpile chemical agents and materials previously stored at Aberdeen Proving Ground's Edgewood Chemical Activity have been fully processed. The APG CSEPP mission has been completed and is in the process of being closed out.

VX land mines in a separate igloo). Access is strictly controlled with security forces, intrusion detection devices, barricades, and perimeter lighting.

Table 2: Original Locations and Compositions of CONUS Chemical Stockpile Sites[23]

Chemical Activity/Depot	Chemical Agents	Munition Configurations	Disposal Technology	Percentage of Original Stockpile
Edgewood Chemical Activity, MD	HD	Ton containers	Neutralization	5.2
Anniston Chemical Activity, AL	HD, HT, GB, VX	Artillery cartridges Artillery projectiles Ton containers Rockets Mines	Incineration	7.2
Blue Grass Chemical Activity, KY	HD, GB, VX	Artillery projectiles Rockets	Neutralization	1.7
Newport Chemical Depot, IN	VX	Ton containers	Neutralization	4.0
Pine Bluff Chemical Activity, AR	HD, HT, GB, VX	Ton containers Rockets Mines	Incineration	12.2
Pueblo Chemical Depot, CO	HD, HT	Artillery cartridges Artillery projectiles	Neutralization	8.3
Deseret Chemical Depot, UT	H, HD, HT, GA, GB, VX	Artillery cartridges Artillery projectiles Aerial bombs Ton containers Rockets Mines Spray tanks	Incineration	43.2
Umatilla Chemical Depot, OR	HD, GB, VX	Artillery projectiles Aerial bombs Ton containers Rockets Mines Spray tanks	Incineration	11.8

C. Worker Safety and Regulatory Standards

The Army has the responsibility to ensure that chemical agent operations are conducted in a safe, secure, and reliable manner (see AR 50-6). In addition to developing policies and procedures for the purposes of handling chemical agents and munitions, the Army has specific guidelines to use in preparing for,

[23] Note that this table represents the ORIGINAL composition of the CONUS stockpiles, and these numbers and composition have changed since 1985. The OCONUS chemical stockpile at Johnston Atoll composed approximately 6.4 percent of the original stockpile.

responding to, and recovering from a CAI involving chemical agents and munitions (see DA Pam 50-6).[24] In the execution of these duties, the Army is committed to providing a safe and healthful environment for the general population and workers at the chemical stockpile sites.

The Centers for Disease Control and Prevention (CDC) has promulgated AELs for workers for both nerve and blister agents.[25] The nerve agent Airborne Exposure Levels (AELs) became effective on January 1, 2005. The mustard AEL was effective as of July 1, 2005.[26]

It should be made clear that there are different agent concentration standards for emergency planning as opposed to agent concentration standards for worker and public health protection and safety. To allow for safe working conditions, workplace safety regulation agencies use three general safety standards (see Table 3). The first is Immediately Dangerous to Life or Health (IDLH), which is defined as "an atmospheric concentration of any toxic, corrosive, or asphyxiant substance that poses an immediate threat to life or would cause irreversible or delayed adverse health effects or would interfere with an individual's ability to escape from a dangerous atmosphere."[27] The purpose of establishing an IDLH is to "ensure that the worker can escape from a given contaminated environment in the event of failure of the respiratory protection equipment,"[28] allowing an individual to be exposed to such a concentration for up to 30 minutes without death, serious or irreversible health effects, or impairment/impediment to the ability to escape. The point of the IDLH level is that respiratory protection must be used at that level or higher, and that a rescue system must be in place in case of respiratory protection failure.

The Short-term Exposure Limit (STEL) is the maximum concentration to which unprotected chemical workers may be exposed for up to 15 minutes continuously. The concentration is developed on a time-weighted average (TWA), which is the maximum concentration of agent to which employees may be exposed averaged over a specified length of time. Monitoring is conducted in those areas involving operations where workers may be exposed to levels of chemical agent escaping into the operating environment and exceeding the STEL.

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[24] Headquarters, Department of the Army. *DA Pamphlet 50-6: Chemical Accident and Incident Response and Assistance (CAIRA) Operations*. Washington, D.C.: HQDA, 26 March 2003. Available online at www.army.mil/usapa/epubs/pdf/p50_6.pdf.

[25] Final recommendations for nerve agents, 68 Fed. Reg. 58348 (Oct. 9, 2003) and interim recommendations for mustard agents, 69 Fed. Reg. 24164 (May 4, 2004).

[26] The Army adopted the AEL criteria recommended by the Centers for Disease Control and Prevention (CDC) guidance in the Federal Register, Volume 68, No. 180, September 17, 2003, for nerve agents GA, GB, and VX, and Federal Register, Volume 69, No. 85, May 3, 2004, for H, HD, and HT. Additionally, the Army has chosen to revise the GD and GF values in June 2004 for consistency.

[27] See Hazardous Waste Operations and Emergency Response Regulations in 29 CFR 1910.120.

[28] NIOSH Respirator Decision Logic, 1987.

Similarly, the Worker Population Limit (WPL) is the maximum allowable eight-hour concentration that an unprotected chemical worker could be exposed to for an eight-hour workday and 40-hour week for 30 years without adverse effect. Again, monitoring is performed for identified areas where workers may be exposed to chemical warfare agents. The worker safety standards developed for chemical agents are taken into account and used for monitoring both storage and chemical disposal facilities (CDFs).

Table 3: Worker Airborne Exposure Limits

Agent	IDLH	*STEL*	WPL
GA, GB	0.1 mg/m^3	0.0001 mg/m^3	0.00003 mg/m^3
GD, GF	0.05 mg/m^3	0.0002 mg/m^3	0.00003 mg/m^3
VX	0.003 mg/m^3	0.00001 mg/m^3	0.000001 mg/m^3
H, HD	0.7 mg/m^3	0.003 mg/m^3	0.0004 mg/m^3

CSEPP funds may be used by installations to procure personal protective equipment (PPE) and monitors to comply with worker safety requirements. However, off-post emergency responders should not plan to enter contaminated areas or potentially contaminated areas. Therefore, CSEPP communities should not procure PPE and monitors for the purposes of re-entering or monitoring potential hazard areas. Off-post emergency responders supporting any CAI response must abide by HAZWOPER regulations per 29 CFR 1910.120. Additional guidance on emergency worker protection will be located in the *Medical Resource Guide* currently under development by the Medical IPT.

The General Population Limit (GPL) is the maximum concentration to which the general population may be exposed 24 hours, 7 days a week, for a 70-year lifetime (see Table 4). This applies to the entire general population, including all ages and medical conditions. These values are used in developing risk management efforts to ensure measures are developed to protect against the chronic exposure of the population to chemical warfare agents during day-to-day operations of the disposal facility.

Table 4: General Population Limits for Chemical Warfare Agents

Agent	General Population Limit, 24-hour TWA (12-hour period for mustard)
GA, GB	0.00000100 mg/m^3
GD, GF	0.00000100 mg/m^3
VX	0.00000060 mg/m^3
H, HD, HT	0.00002000 mg/m^3

D. Acute Exposure Guideline Levels

In November 2001, the Army and DHS/FEMA adopted Acute Exposure Guideline Levels (AEGLs) as the toxicity criteria to be used by the CSEPP community for the purposes of emergency planning and response activities in the event of a catastrophic release from a chemical stockpile.[29] These AEGLs are not safety standards, but rather decision guidelines for the implementation of protective action strategies. The agent AEGLs have been reviewed and approved by the National Research Council and the Centers for Disease Control and Prevention (CDC).

CSEPP installation and off-post emergency responders should use AEGLs for emergency planning and response efforts. AEGLs should not be confused with worker safety levels, GPL, or other regulatory standards. They are to be used in air dispersion models to establish potential areas at risk from CAIs. The three different AEGL health effect levels allow emergency planners and responders to prioritize resources and activities associated with a chemical release. As such, CSEPP emergency responders should not plan to procure monitors and PPE for the purposes of monitoring AEGLs.

While specific decisions on the need for evacuation or shelter-in-place (SIP) may vary by location and event, the AEGLs have specific minimum decision criteria consistent with existing emergency planning response procedures used by industry and HAZMAT response personnel and consistent with *CSEPP Policy Paper No. 1* (defining maximum protection).[30]

- Priority should be given to prevent exposures above AEGL-3, which could result in severe, incapacitating, and possibly lethal outcomes.
- Protective actions should be directed toward preventing or minimizing exposures above AEGL-2, above which some temporary, but potentially escape-impairing effects, could occur.

[29] Department of the Army and FEMA. *CSEPP Policy Paper No. 20: Adoption of Acute Exposure Guideline Levels (AEGLs)* (Revised). 24 February 2003.
[30] Department of the Army and FEMA. *CSEPP Policy Paper No. 1: Definition of Maximum Protection*. May 1991.

- AEGL-1 boundaries identify those areas that, at or below the expected concentration, no action is required to protect the public. This information may be used at the discretion of local emergency decision-makers to alert and notify communities.

These criteria reflect Army/DHS recommendations. Site-specific decisions for off-post responses using AEGLs for protective action strategies are a local CSEPP community decision. States and local emergency managers selecting alternative decision criteria should document the criteria and rationale and coordinate associated planning with Army and DHS/CSEPP. The Army will provide modeling and software capability and output based on the described decision criteria. The State and local emergency managers are accommodating this information in their respective planning and response activities.

E. Automated Data Processing

All chemical stockpile sites (to include HQ CMA) and local and State EOCs require functional, automated data processing systems that allow them to create a hazard prediction of a CAI promptly and accurately, as well as to communicate this information quickly amongst EOCs and JICs. This requires a validated and verified automation data processing tool that can be employed without excessive training requirements. The success of using such software depends on its ability to accurately predict the behavior of chemical agents over terrain in different weather conditions, but also to take into account protective action strategies, day-to-day work plans, and event alert and notification procedures. These decision-support tools provide decision makers and emergency responders with valuable data formatted for rapid assessment, which can then be communicated over the alert and notification system to the protective zones and other EOCs.

To ensure this capability is sustained, all EOCs must adopt an integrated automated data processing system that supports an accredited CSEPP hazard modeling software, protective action decision (PAD) determination and alert and notification protocols, and event notification and management to meet specific community needs. Such systems should incorporate emergency management software and hazard-prediction software, featuring browser-based interfaces and appropriate security features. They also should meet State and county information technology standards and requirements for hardware and software systems.

F. Communication Systems

Coordinating emergency response to a chemical event calls for the following three critical communication capabilities:

- Direct, reliable, and redundant communication between the Army EOC and the off-post EOCs (both primary and alternate) of all IRZ counties and states;

- Reliable inter-jurisdictional EOC communications for all affected off-post areas as well as links with the State emergency services or related agencies; and
- Reliable communications between all off-post EOCs and their field units.

Because emergency information must be transmitted quickly and accurately, the emergency communication system must have both a high reliability factor and redundancy. Dedicated, non-public telephone lines are an effective means of on-post to off-post communication. However, dedicated lines may have limited application due to the distances involved and telephone facility limitations. In addition, they may become inoperative due to weather, line damage, or system overload. Radio links using dedicated frequencies offer another effective means of communication. A communications network, consisting of redundant telephone and radio systems, should be designed and installed to link the Army installation EOC and notification point with the EOCs and notification points of all IRZ counties and states. Regardless of whether the telephone or radio system is designated the primary method of communication, the other system must be provided to serve as a backup. Both primary and alternate systems must have high reliability.

On-post to off-post initial notification should be handled in a way that gains the attention of the off-post personnel and provides needed information. This initial notification must go to a facility staffed around the clock, capable of further disseminating the messages and activating resources within time frames that will ensure protection of the population at risk. Systems must also provide for timely interagency and inter-jurisdictional communications.

Once off-post coordinating agencies have received the initial information, they must be able to communicate with, activate, and mobilize their respective response units such as law enforcement, fire, emergency medical, rescue, and other public safety resources, as well as governmental, health, school, and other special facility authorities. Communicators must be able to handle information related to chemical emergencies accurately and quickly because of the nature of the hazards. As local emergency plans are updated, internal communication protocols should be reviewed and modified as needed to assure rapid and accurate information transfer.

G. Meteorological Towers

In 1993, the Army and FEMA agreed to the construction of meteorological towers in the civilian community, supplementing those installed on military installations, to augment information collection used to support protective action strategies of local communities participating in CSEPP. On-site, real-time meteorological data provide critical information on potential path and severity of a chemical plume. The data are used within atmospheric dispersion models to predict the location and concentration of the chemical plume. Meteorological data are collected at multiple locations off-post to support planning and response operations. The data

are provided through the automation system to the D2-Puff model for real-time, continuous projections of potential plumes. Any such model will provide more reliable plume projections with additional sources of meteorological data, including off-post data. The 1993 agreement allowed for the procurement of up to four towers per CSEPP community under the following conditions:[31]

- The Functional Specifications for Automation Systems only require off-post authorities to have access to data from Army meteorological towers. Essential meteorological information is to be obtained from the on-post meteorology system via the automation system.
- Initial hazard projections are the responsibility of the on-post authorities, using weather data from the site of the incident.
- The CSEPP automation system is intended to provide off-post authorities with access to data from existing on-post met towers.
- Each state participating in CSEPP may be provided with a limited wind monitoring capability.
- The provision of this apparatus will not entail the funding of additional staff for the affected jurisdiction(s).
- This limited wind monitoring capability will consist of not more than four anemometer units, with the capability to monitor wind speed and direction and to transmit this data to the EOC for the IRZ jurisdiction. Additional meteorological instruments to monitor temperature, humidity, or cloud ceilings are not required and will not be funded under this policy.

H. Technical Support from U.S. Army Chemical Materials Agency

The Army and DHS have developed protocols to ensure for the provision of technical support and information in response to requests from off-site CSEPP communities. This includes requests for both medical and non-medical technical information (see Figure 4). Requests for technical information can be grouped into three types:

- Requests that require a simple response to a technical question;
- Initiation of technical assistance/support that has been previously approved, and can be accomplished within the ability of existing CSEPP funds; and
- Initiation of technical assistance/support that has not been previously approved, and/or fall outside of the current CSEPP budget.[32]

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[31] Department of the Army and FEMA. *CSEPP Policy Paper No. 7: Interim Policy Regarding Off-post Meteorological Towers for CSEPP*. 26 March 1993.

[32] Department of the Army and FEMA. *CSEPP Policy Paper No. 17: Protocols for Communication with Army Soldier and Biological Chemical Command (SBCCOM) CSEPP Technical Support Staff*. 27 October 1998.

For simple technical information requests received from local, tribal, or State governments or CSEPP regional field offices, CMA is the approval authority with DHS HQ receiving notification of the request. For simple technical information requests from DHS HQ, DA, or the military installations, CMA is the approval authority (no notification of other agencies required).

For requests for approved/funded CMA technical support received from local, tribal, or State governments, the CSEPP regional field offices are the approving body with DHS HQ receiving notification of the request. For similar requests received from DHS HQ, DASA(ECW), or military installations, CMA will execute the requests as funded and inform both DHS and DASA staff of the results.

For requests for unapproved/unfunded CMA technical support received from local, tribal, or State governments, or CSEPP regional field offices, both DHS HQ and DASA(ECW) will approve the request prior to CMA executing the task. For similar requests from military installations, CMA, DHS HQ, or DASA(ECW), both DHS HQ and DASA(ECW) must approve the request prior to CMA executing the task.

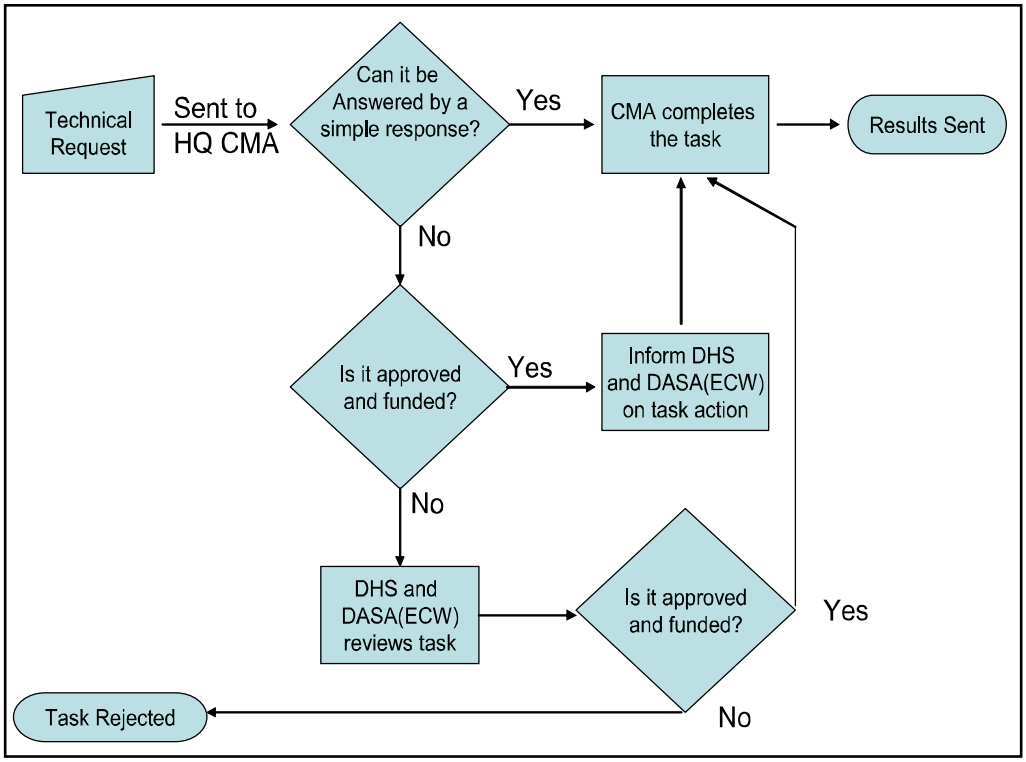

Figure 4: Decision Process for Technical Support from CMA

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Chapter IV—Chemical Accident/Incident Planning & Response Overview

In preparing to respond to a potential CAI, installation, State, tribal, and local emergency planners develop coordinated plans and related requirements, ensuring all personnel and resources that have a role in responding to CAIs are taken into account. These plans outline roles and responsibilities; relationships between Federal, State, and local governments; and resources and actions required. These plans are updated periodically and tested during annual exercises to ensure requirements are addressed and personnel understand their roles and responsibilities.

Emergency plans must also prescribe mechanisms that minimize the time required to determine the existence and potential consequences of a chemical event, pass this determination to appropriate officials, and recommend appropriate responses. Therefore, three of the most critical parts of the CSEPP effort are (1) accurate assessment of the chemical emergency and its potential impact; (2) timely notification of officials and the community; and (3) recommendation for appropriate protective actions.

This section gives an overview of responsibilities for planning and preparation at the federal, state, tribal, and local level and an overview of efforts which require immediate response. Detailed guidance about the content of state and local CSEPP plans may be found in the CSEPP Planning Guidance.

A. Organizational Response

Army CAIRA Response

The Army has specific functions, responsibilities, organization, and procedures for responding to CAIs and hazardous materials response in general. Key documents include Army Regulation (AR) 50-6, Chemical Surety; Department of the Army Pamphlet (DA PAM 50-6) [33], Chemical Accident or Incident Response and Assistance (CAIRA) Operations; and AR 200-1, Environmental Protection and Enhancement. Installation emergency plans for responding to a CAI are developed according to DA Pam 50-6 and are referred to as CAIRA plans.

The Army's CAIRA effort includes actions to save lives, preserve health and safety, prevent further environmental damage, protect property, secure the chemical agents, and maintain public confidence in the Army's ability to store and secure chemical agent and related materials. The Army's response effort includes some key off-post concerns such as public information, event

[33] Headquarters, Department of the Army. *DA Pamphlet 50-6: Chemical Accident and Incident Response and Assistance (CAIRA) Operations*. Washington, D.C.: HQDA, 26 March 2003. Available online at www.army.mil/usapa/epubs/pdf/p50_6.pdf.

assessment, emergency notification, and coordination of response activities. The term CAI includes unintentional chemical events where chemical agent is released into the ambient atmosphere and either threatens unprotected personnel or has the potential to threaten unprotected personnel. This can include (1) chemical events resulting from non-deliberate events where safety is of primary concern (accidents) and (2) chemical events resulting from deliberate criminal or terrorist acts (incidents) where security is of concern in addition to safety.

Under CAIRA, the Army establishes, trains, and maintains an Installation Response Force (IRF) at each chemical agent stockpile location to respond to chemical events. In addition, an Army-wide Service Response Force (SRF) is established, trained, and maintained for deployment in the continental United States (CONUS) as needed. The IRF, under the command of the Army Installation Commander, is prepared to implement CAIRA procedures for immediate response to a release of chemical agent. If a follow-on response effort is required, the SRF is activated to provide sustained operations. The SRF, under the direction of a general officer, includes the IRF and additional staff and teams from various agencies.

Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Contingency Plan (NCP), the Army as facility owner is responsible for response to and cleanup of any hazardous materials spill, including a CAI. When a notifiable event occurs, the installation notifies the National Response Center as part of initial notification process (along with notifications to state and local authorities and Army higher headquarters).

NCP response is coordinated by the Federal On-Scene Coordinator (OSC). In the event of a CAI, the OSC will be the Installation Commander while the IRF is operative. If the Army's SRF is activated, the OSC position transfers to the general officer in charge of the SRF.

The NCP provides for assistance from other federal agencies, particularly the EPA. The OSC coordinates and directs all federal efforts under the NCP, including efforts to reduce (mitigate) the risk of further releases, assess the hazard to public health and the environment, and clean up any contamination.[34]

Off-post planners should be familiar with the installation CAIRA plan, especially those parts of the plan that relate to off-post activities (e.g., emergency assessment and notification, PARs, and coordination with off-post actions). Regular meetings and dialogue between community and installation CSEPP staff will help ensure that each organization understands the other organizations' role, structure and terminology.

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[34] Department of the Army and FEMA. *CSEPP Policy Paper No. 2: Environmental Sampling to Determine Chemical Agent Contamination*. 5 October 1993.

Federal Response under the NRP

Depending on the severity and circumstances of the event, a CAI may result in activation of the National Response Plan (NRP). The NRP may be activated in response to a request from the Governor of an affected state, or on the President's own initiative. Activation of the NRP allows the federal government to use certain resources to assist with temporary housing, financial aid, and other disaster response measures. If the NRP is activated, federal assistance under it will be coordinated by a Federal Coordinating Officer (FCO) or a Principal Federal Official (PFO), depending on the magnitude of the response. DoD will provide Defense Support to Civilian Authorities as provided for in the NRP. NRP response will be conducted according to the National Incident Management System (NIMS), which provides a system for coordination of federal response efforts with state and local efforts.

State and Local Response

In the event of a CAI, elected state and local officials have primary responsibility for choosing and implementing protective actions for the off-post population, including decisions regarding sheltering, evacuation, and subsequent reentry to evacuated areas. Each state has an emergency management statute that specifies which officials may exercise emergency powers, including the power to declare a "state of emergency" and implement protective actions. Emergency management statutes also typically assign responsibility for emergency planning and preparedness to particular officials and agencies. Under the CSEP Program, state and local authorities are responsible for developing CSEPP emergency plans (generally as an appendix to an existing all-hazard plan) and coordinating planning and operations with the Army installation.

U.S. Army assistance to state and local governments will be provided in accordance with federal law, Presidential Directives, the NCP, the NRP, DOD and Army regulations and guidance, and local agreements.

B. Alert and Notification

A 24-hour capability to warn the public of a CAI requires installation and testing of warning systems, careful planning, and regular training, drills and exercises. To be effective, warning and notification systems must work reliably and quickly.

Initial Notification between On- and Off-Post Officials

Under Army regulations and the CAIRA plans described above, the installation will notify off-post authorities when a CAI occurs that may affect off-post areas. Specific procedures for this notification, including points of contact, communication systems, and information to be conveyed, should be coordinated between the installation and off-post authorities and documented in an MOA. Detailed recommendations about this process are provided in the CSEPP Planning Guidance.

When a CAI occurs, initial notification of off-post authorities should include: (1) a brief description of the event; (2) a declared emergency level; and (3) recommended protective actions, if any. The recommendation of protective actions should be based on pre-established criteria agreed to by the installation and off-post officials regarding what protective actions would be appropriate under what circumstances. Off-post plans and procedures can be developed to include a range of preparatory and/or automatic responses based solely on the emergency level.

A standard system for classifying chemical events is used to simplify and clarify emergency communications from the Army installation to the off-post community. Four Chemical Event Notification Levels (CENLs) are used in notifications:

- Non-surety Emergency;
- Limited Area Emergency;
- Post Only Emergency ; and
- Community Emergency

The CENLs are defined according to expected hazard, as shown in Table 5. Note that "chemical effects," a term used in the table, may refer to AEGL-1 or AEGL-2, depending on local agreement.

Additional emergency notification levels may be appropriate within these levels at particular stockpile locations to account for unique local planning factors. When other levels are needed, they should be added to the four levels stated above, not substituted for any of them.

Table 5: Chemical Event Notification Levels

CENL	Definition
Non-surety Emergency	Events are likely to occur or have occurred that may be perceived as a chemical surety emergency or that may be of general public interest but which pose no chemical surety hazard. This includes non-surety material emergencies.
Limited Area Emergency	Events are likely to occur or have occurred that involve agent release outside engineering controls or approved chemical storage facilities with chemical effects expected to be confined to the chemical limited area.
Post Only Emergency	Events are likely to occur or have occurred that involve agent release with chemical effects beyond the chemical limited area. Releases are not expected to present a danger to the off-post public.
Community Emergency	Events are likely to occur or have occurred that involve agent release with chemical effects beyond the installation boundary.

Figure 5 illustrates the definitions of limited area emergency, post only emergency, and community emergency.

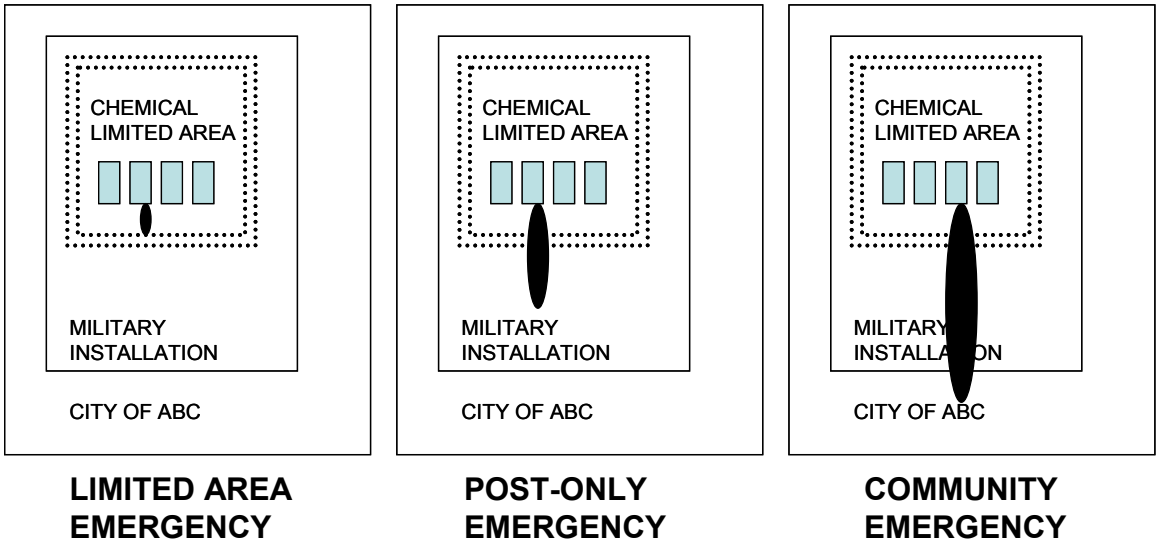

Figure 5: Chemical Surety Emergency Levels

Alerting the Public

Emergency planning must provide for one or more methods of alerting the public. These methods must cover the emergency zones, must be reliable, and must be capable of quick activation. Alert and notification rely upon two separate and distinct steps: (1) attracting the attention of the public (alerting) and (2) providing information concerning appropriate protective actions (notifying). The public must be aware of this two-step process, so that when alerted, people will listen for information from designated systems like voice messages from the electronic sirens, TARs, and the Emergency Alert System (EAS).

The primary alert and notification system for the IRZ should consist of a network of outdoor warning devices covering all populated areas of the zone along with indoor devices in each inhabited residential dwelling unit. Electronic sirens with voice message capability should be used for outdoor alert and notification. TARs, National Oceanic and Atmospheric Administration (NOAA) Specific Area Messaging Encoding (SAME) radios, or fully capable EAS receivers may be used for indoor warning. This primary system may be supplemented with other warning methods where warranted (e.g., flares to alert powerboat users). Within the PAZ, given the greater warning time available, a different combination of warning measures can be designed for specific applications to population centers, institutions, and other special facilities.

To the extent possible, public notification messages should be pre-scripted to allow for thoughtful preparation of brief, complete, and accurate messages containing carefully prioritized information.

Public notification messages should provide for non-English speaking populations as appropriate and use familiar highways and streets, landmarks, or other well-known designators in presenting clear, unambiguous directions. Such messages also should recommend specific protective actions, give pertinent instructions for implementing the action (i.e., indicate what personal belongings to take if evacuation is recommended), and clearly state the time frame for implementing the protective action.

C. Emergency Planning Zones

The extent and type of emergency planning changes as the distance from the source of a potential release increases. Greater distance means that more time is available to implement protective actions. In addition, exposure also decreases with distance as the concentration of the agent becomes lower.

Recognizing that risk varies with distance from the source, emergency preparedness resources are concentrated on geographic areas close to the installation. Specific areas near the installation are defined to serve as the basis for planning public warning and instruction, evacuation, access control, and protection of special populations.

Two concentric zones are defined around each chemical installation. The inner zone is the immediate response zone (IRZ), and the outer zone is the protective action zone (PAZ). The IRZ encompasses an area requiring less than a one-hour response time when affected by an agent release under typical weather conditions, and extends to approximately 10 to 15 km (6 to 9 miles) from the potential chemical event source. The PAZ extends from the outer edge of the IRZ to approximately 15 to 50 km (roughly 10 to 30 miles) from the potential chemical event source, depending on the nature of the stockpile and other factors. The PAZ is that area where public protective actions may still be necessary in case of a release of chemical agent, but more time is expected to be available for implementation of protective actions.

Although the considerations described above give representative distances for the boundaries of the IRZ and PAZ, in general the actual boundaries have been set to accommodate local considerations. At most locations, zone boundaries have been adjusted to follow familiar landmarks and boundaries such as roads, rivers, and town or county boundaries. Following familiar landmarks and boundaries simplifies planning and allows emergency instructions to the public to be couched in familiar terms.

Most CSEPP communities also have designated zones that divide the IRZ and PAZ into smaller units. Dividing the IRZ and PAZ into smaller unites allows instructions to the public to be directed to the affected area based on conditions (e.g., wind direction) at the time of the accident. As part of the CSEPP planning process, the IRZ, PAZ, and zone designations are integrated into emergency

public information messages and public education materials, and they are coordinated with evacuation routes and access control points (ACPs).

D. Protective Action Decision Making

When a chemical event occurs that may affect off-post areas, officials must determine which protective actions are appropriate for different portions of the affected area. The protective action decision (PAD) process is inherently complex and may have to be made within tight time constraints. Emergency planning should strive to simplify the decision process and minimize the time that must be devoted to it in an emergency situation by carefully analyzing the variables involved in the decision and pre-establishing criteria to be used in selecting appropriate protective actions.

Off-post elected officials are legally responsible for determining specific protective actions to be taken. At the time of a chemical agent event, however, the information needed to determine which protective actions are appropriate may be immediately available only to personnel on the Army installation. Installation personnel may have the only available information regarding the type and amount of agent released, the location of the release, and the mode of release (e.g., spill, fire, or explosion). The installation is also likely to have immediate access to other information, such as meteorological conditions, that is critical to making the PAD. Therefore, in planning for prompt PADs, responsible officials should consider:

- The need for quick review of installation recommendations, decision making, and immediate implementation of decisions.
- What information will be needed from the installation in order to perform the above actions
- Under what circumstances, if any, it may be appropriate to delegate authority to the installation commander to implement protective actions for the public near the installation.

E. Protective Actions

There are two basic protective actions to a chemical emergency: evacuation and shelter-in-place. Either or both actions may be appropriate for different areas depending on factors such as time available before toxic plume arrival, protection afforded by shelters, and evacuation time estimates.

Evacuation

Evacuation consists of temporarily leaving an area of actual or potential hazard for a safe area. It is the most effective of all protective actions, provided it is completed before the arrival of the toxic plume. Evacuation may be precautionary or responsive in nature. A precautionary evacuation is one that is based on risk of a toxic release, but that takes place before any release has occurred. A responsive evacuation, in contrast, is one that occurs after a release. Both types entail similar

planning tasks: estimating the number of potential evacuees, with particular emphasis on special populations; identifying the most appropriate evacuation routes; designating needed traffic control; estimating the time needed for evacuation; and anticipating potential problems.

Access control points (ACPs) and traffic control points (TCPs) should be designated ahead of time based on the predesignated EPZs. However, instructions to evacuate should not be delayed pending the establishment of ACPs and TCPs. Staffing and equipment to set up and maintain the ACPs and TCPs should be identified in the plans and procedures.

Shelter-in-Place

Shelter-in-place is accomplished by shielding from a hazard. Shelters may be congregate (for many people) or individualized (a home). Shelters may be existing structures, with or without upgraded protective measures, or facilities specifically designed to provide shelter from toxic chemicals. In CSEPP there are four types of shelter-in-place: normal, expedient, enhanced, and pressurized.

- **Normal shelter-in-place** involves taking cover in a building, closing all doors and windows, and turning off ventilation systems. Effectiveness is improved by going into an interior room. The shelter should be opened up or abandoned after the toxic plume has passed.
- **Expedient shelter-in-place** is similar to normal shelter-in-place except that, after going into the room selected as a shelter at the time of an emergency, the inhabitants take measures to reduce the rate at which air or chemical agent enters the room. Such measures would include taping around doors and windows and covering vents and electrical outlets with plastic. Effectiveness is improved if an interior room is selected as a shelter. The shelter should be opened up or abandoned after the plume has passed.
- **Enhanced shelter-in-place** is similar to normal shelter-in-place except that it involves taking shelter in a structure to which weatherization techniques have been applied before the emergency to permanently reduce the rate at which air or chemical agent seeps into the structure. Effectiveness is improved by going into an interior room. The shelter should be opened up or abandoned after the toxic plume has passed.
- **Pressurized shelter-in-place** is similar to normal shelter-in-place except the infiltration of contaminated air is effectively prevented by drawing outside air into the shelter through a filter that removes chemical agent. This filtered air creates a positive pressure in the shelter so that clean air is leaking out instead of contaminated air leaking in.

The duration of protection offered by unpressurized shelters is limited. Because such shelters cannot be made completely air tight, they will be infiltrated eventually by chemical agent. People in the shelter will be exposed to gradually

increasing concentrations of agent, and exposure will continue even after the chemical agent plume has passed by outside. Consequently, the protection offered by unpressurized shelter depends on exiting shelter at the appropriate time; the dose-reduction advantage of shelter-in-place can be minimized or lost if the shelter is not exited at the right time. The Army has the responsibility to notify the off-post communities as to optimal times to exit these shelters.

Even pressurized shelters cannot be occupied indefinitely. Any sheltered population will have to exit eventually.

F. Special Populations

An emergency response program should provide for individuals and groups, both in and out of institutions, who require special consideration in emergencies. These special populations include, but are not limited to, the sensory, mobility, or mentally-impaired; unattended children; children in preschool facilities; school students; hospital patients; nursing home residents; individuals in correctional facilities; individuals living at home with special equipment needs due to medical conditions; chronically ill persons particularly susceptible to agent exposure; people who do not own or have access to an automobile; residents of private care or convalescent homes; and people who do not speak English.

Plans should include measures designed to protect special populations as appropriate, based on their needs, protective actions that might be required, and available resources for assistance. Bilingual instructions should be prepared for any group of people that do not speak English if their numbers make up greater than one percent of the overall population.

G. Recovery

Recovery is the process of restoring an impacted community to pre-incident conditions to the extent possible.

The *CSEPP Recovery Plan Workbook* is designed for use by CSEPP communities and provides a template for recovery planning.[35] The workbook includes a basic recovery plan format and covers recovery hazard assessment and decision making, management of access to restricted areas, protection of food and water, medical and social services, relocation of residents, public information, claims and disaster assistance, and environmental remediation. The workbook also provides background, explanatory, and reference materials to aid planners.

[35] Argonne National Laboratory. *CSEPP Recovery Plan Workbook*. December 2002.

H. Medical Preparedness and Planning

Background

As part of its ongoing efforts to improve medical preparedness within the medical sector of civilian communities surrounding chemical agent depots, the CDC developed medical preparedness and response guidelines, which were published in the Federal Register in 1995.[36] These guidelines, developed in cooperation with a panel of experts in the fields of emergency medicine, nursing, disaster preparedness, and the pre-hospital emergency medical system (EMS), presented minimum standards of medical preparedness for civilian communities that might be exposed to chemical warfare agents during the storage or demilitarization process. *CSEPP Policy Paper No. 15* (April 2000) provides further guidance on CSEPP medical preparedness and prescribes procedures for review and approval of funding for medical preparedness measures.[37] Guidelines for Army chemical installations regarding CAI medical preparedness are found in Chapter 6 of DA Pam 50-6.

CSEPP medical preparedness policies, references, and information are developed by a national-level interagency Medical Integrated Process Team (MIPT). The MIPT is consolidating CSEPP-related medical information in the *CSEPP Medical Resource Guide.*

CSEPP Hospitals

To develop and maintain medical readiness for chemical stockpile emergencies, CSEPP works with and provides resources to certain hospitals in the vicinity of chemical installations. These hospitals maintain capabilities to treat patients injured by chemical agent, including appropriate equipment, supplies, training, and participation in exercises. Such hospitals are referred to in the Program as CSEPP Hospitals.

CSEPP Hospitals may be designated by two different mechanisms: by the Army Chemical Installation through a Memorandum of Agreement as per *DA PAM 50-6*, or by the CSEPP regional field office through a DHS approval process. Application materials and criteria for designation as a CSEPP Hospital will be provided in the *CSEPP Medical Resource Guide*.

Continuum of Victim Care

Medical planning begins with the on-post medical plans and procedures to handle the most probable event and continues with plans and procedures to mobilize on- and off-post medical personnel and emergency medical services in response to a maximum credible event (MCE). Civilian emergency medical response resources

[36] 60 Fed. Reg. 33308, 27 June 1995. Corrections at 60 Fed. Reg. 38564, 27 July 1995.
[37] Department of the Army and FEMA. *CSEPP Policy Paper No. 15: Off-post Medical Preparedness Capability*. Revised April 2000.

include, but are not limited to, local ambulance services (ground and air), local fire services, local and regional hospitals, other healthcare providers, and State/county health departments (public health and coroners office). The continuum of victim care begins on-post, or at any entry point to the medical system, and continues until final patient disposition occurs.

MOAs between the installation and off-post medical treatment facilities are recommended in order to ensure coordination for the continuum of victim care. Detailed recommendations for such agreements may be found in DA Pam 50-6, Chapter 6, paragraph 6-2.b. [38]

Exercise Participation

Evaluation of the elements of Victim Care as defined in the *Exercise Policy and Guidance for the Chemical Stockpile Emergency Preparedness Program ("Blue Book")* begins on-post, or at any entry point to the medical system, and continues until final patient disposition occurs.[39] CSEPP Hospitals are required to participate in the community's annual CSEPP exercise. They are evaluated according to the criteria described in the *Blue Book*, as well as the emergency preparedness standards set by their accrediting organizations.

The *CSEPP Medical Resource Guide*, currently under development by the MIPT, will be a tool to guide participating hospitals with evaluation of their overall preparedness activities. It will contain EMS and Hospital Medical Evaluation Guidance (MEG) as well as examples of other emergency preparedness standards, such as those of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

Medical Funding

CSEPP requirements for medical equipment, personnel, supplies, training, and exercises should be incorporated into the state's LCCE and the annual DHS CA process. CSEPP regional review and comment on the state's requirements is a key element of the validation process. Details as to those items considered eligible or ineligible for CSEPP funding will be identified in the CA guidance documents.

Medical Program Assessment

The medical section is one of 12 CSEPP National Benchmarks, which provides a basis for planning, budgeting, and performance measurements within CSEPP. A self-assessment of medical capabilities throughout the community is provided using the Community Profile Tool. Refer to the *CSEPP Medical Resource Guide* for items to be identified in the medical section of the community profile.

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[38] Headquarters, Department of the Army. *DA Pamphlet 50-6: Chemical Accident and Incident Response and Assistance (CAIRA) Operations*. Washington, D.C.: HQDA, 26 March 2003. Available online at www.army.mil/usapa/epubs/pdf/p50_6.pdf.

[39] Department of the Army and DHS/FEMA. *Exercise Policy and Guidance for the Chemical Stockpile Emergency Preparedness Program*. 7 September 2004.

I. Intergovernmental Coordination

Because of the need for prompt response in implementing protective actions, State and local governments must manage the initial response in cooperation with local Army officials. On-post and off-post response plans and procedures must be based on a common understanding of each party's responsibilities and capabilities to ensure timely and effective performance of all critical emergency response functions. Both installations and the local communities must develop and integrate their plans and procedures to ensure a smooth and coordinated response, in the event of a CAI. There will not normally be enough time for local officials to consult extensively with other Federal and State emergency management officials. Based on information and recommendations from the Army installation, local government officials will have to determine the most appropriate protective responses for their citizens and initiate emergency response efforts.

To respond to situations that may have a rapid onset and require immediate action, local officials may find it useful to authorize on-post officials to initiate off-post emergency response such as public alert and notification. Such arrangements must anticipate potential legal or political barriers and should be formalized in letters of agreement or mutual aid agreements as part of the planning process. (See further guidance in *CSEPP Planning Guidance*, Chapter 5, Part A, *Alert and Notification*.) These agreements also will require the on-post organization to notify the off-post response organizations immediately when such an authorized response is implemented.

Once the population at risk has been protected or removed from the hazard, the chief considerations for subsequent actions will include intermediate and long-term medical intervention, environmental impact assessments, re-entry to evacuated areas, clean-up, and dealing with the social and economic effects of the event. Federal and State health, environmental, agricultural, and wildlife agencies will become involved in the recovery if there is chemical contamination or exposure of people, crops, food, wildlife, or livestock. Liability and compensation issues are sure to arise. To the degree possible, planning should anticipate both short-term and long-term recovery concerns and address them suitably. Some of these are briefly discussed later.

Chapter V—Public Information and Education

An underlying assumption in emergency management is that an informed public, when provided with timely and accurate information, will take appropriate actions to protect themselves during an emergency. Therefore the CSEP Program includes efforts aimed at creating an informed public and ensuring that timely and accurate information will be provided during an emergency.

This chapter discusses those actions taken by installation and off-post emergency management officials to educate and reach out to the community prior to a CAI. It also summarizes the technology, procedures, and training to communicate timely and accurate information to the public during an emergency. All of these public affairs functions are essential in the planning and response to an incident at a chemical stockpile site.

Specific emergency public information actions to be taken following a CAI are described in the CSEPP Planning Guidance. Measurement of public information and education program efforts is identified in Chapter VI – Training, Exercises and Assessments.

A. Public Education

Achieving an informed public requires research to gain an understanding of the public's current levels of protective action knowledge. Based on that research, a public education program is designed and implemented to increase the public's knowledge of emergency protective actions and the relative risks associated with an event. In addition, an effective outreach program should:

- Maintain residents' trust in emergency management;
- Foster two-way communications between the CSEP Program and program stakeholders; and
- Communicate to the community the risks posed by the stockpile.

Over the life of the program, it should be periodically evaluated to determine whether it is achieving these goals and provide a basis for improvements to public education efforts.

Senior elected officials, emergency managers, and on-post Commanders play an important role in the development and implementation of CSEPP public education and emergency public information programs. Without senior management buy-in, the community is at risk of communicating mixed messages to the public, causing confusion about which emergency protective actions are appropriate.

The CSEPP Public Affairs Integrated Process Team (PA IPT) has developed a step-by-step process for communities to develop public outreach campaigns (see Figure 6). Based on research, the process begins with identifying knowledge gaps;

setting goals and metrics for the outreach; evaluating and implementing outreach strategies and follow-up studies to measure campaign success. Detailed guidance on implementing an outreach campaign is located in the *CSEPP Public Affairs Planning Guidance Compendium Workbook* and the *CSEPP National Joint Communications Action Plan* developed by the PA IPT.[40,41]

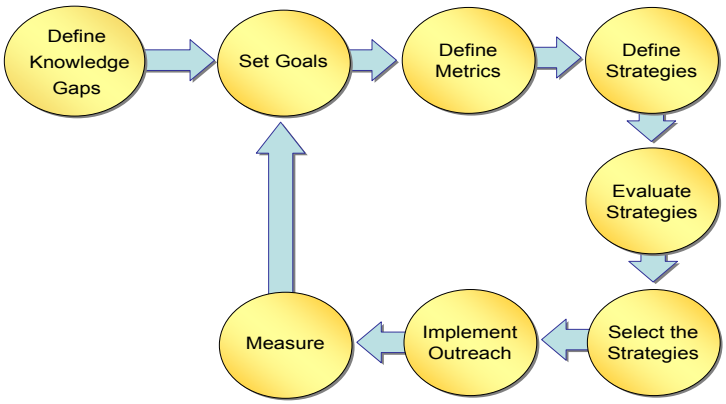

Figure 6: Public Outreach Process

Public education is more effective when it is a two-way street. The public's concerns must be acknowledged and addressed by both the Installation Commander and off-post emergency management officials. Open communication between the on-and off-post communities fosters trust and credibility. Technical jargon and acronyms should not be used to convey the intended message.

CSEPP public education campaigns should enlist the support and aid of trusted sources of information in the community, including public officials and the news media. Participation and support of community officials is essential to any preparedness program. The news media are important channels for communication and are important resources in any preparedness program. Because of the large audience that the media can reach nearly instantaneously, the CSEPP community should anticipate the needs of the news media and accommodate their requests whenever possible.

CSEPP public education programs should be tailored to each community based on research as to the community's needs. For example, the content of the program may differ among the EPZs. Diverse ethnic and socioeconomic groups may require a vriety of approaches. (Education programs should also follow existing Federal guidelines on providing information to these groups.) Public education programs may include:

- Printed public information materials such as calendars, telephone directory inserts, and brochures distributed to residents and special facilities such as

[40] Department of the Army and DHS/FEMA. *CSEPP Public Affairs Planning Guidance Compendium Workbook*. Prepared by Argonne National Laboratory. June 2005.
[41] *CSEPP National Joint Communications Action Plan*. CSEPP Public Affairs IPT. 21 April 2001.

schools, nursing homes, and hospitals (printed material should include specific information such as relocation points, special facility plans, and items to take to a mass care center);

- Posters and displays in areas where transient populations pass;
- Presentations before civic and fraternal organizations and other formal and informal groups;
- Public meetings held specifically for this purpose;
- Programs designed for specific audiences, including school children, local media, and community leaders; and
- Paid advertising to target specific outreach messages.

B. Emergency Public Information Services

The principle objective of an emergency public information program is to assist the response to minimize fatalities, injuries, and property damage by ensuring that appropriate instructions are distributed to the public in a timely manner during a CAI. Research and case studies show that accurate, consistent, and timely information calms anxieties and reduces potentially problematic public reactions such as spontaneous evacuation. Before an emergency occurs, communities should consider what information will be needed by the news media and public and develop a strategy for gathering, coordinating, and disseminating that information quickly and accurately.

Emergency public information should be disseminated in stages. The initial stage will focus on immediate, urgent protective activities such as shelter-in-place or evacuation. As off-post facilities become operational, emergency public information will center on response. Response will evolve into recovery. Each new phase will likely have a different focus and involve different information. Similarly, specific population groups will have varied information needs. For example, non-English speakers and those with visual, hearing, or speech impairments have special requirements. The emergency public information program should include provisions for meeting the unique needs of special population groups.

Initial, urgent action messages are distributed over dedicated systems such as EAS and TARs. However, over the course of an emergency, and its aftermath, the news media will be the public's primary source of information, relying on both official and non-official sources. Ensuring that the news media receives accurate, consistent, and timely official information from the outset requires careful planning and considerable advance preparation. It is important to build and maintain a strong working relationship with the news media. This relationship should include a clear commitment that government representatives will be immediately available to provide information over the course of an emergency.

Given the many demands that occur in the immediate aftermath of an emergency event, there will not be time to develop a comprehensive emergency information program after an incident occurs. In order to ensure a coordinated process, it is recommended that planning for a Joint Information System (JIS) and JIC be initiated in close cooperation among all jurisdictions.

Joint Information System

The mission of the JIS is to provide a mechanism for uniform, coordinated, and consistent information to be presented to the news media and public from government officials and first responders. The elements of a JIS must be put into place before an emergency occurs. This includes the plans, protocols, and structures used to provide information during incident operations, and encompasses all public information operations related to an incident, including those performed at the Federal, State, tribal, local, and private organization levels. Key elements of JIS planning include: interagency coordination and integration; developing and delivering coordinated messages; support for decision-makers; and flexibility, modularity, and adaptability.

In establishing a JIS, the plan should identify each agency, office, and organization that may be part of the emergency response network and note their respective responsibilities, including the type of information each would be responsible or able to provide. The plan should establish specific means for exchanging information among the participants, and there should be multiple points of contact and means of communication (e.g., phone, pager, cell, fax, Internet). It should also be determined whether the JIS member will assign a spokesperson to the JIC, if established (see the following section entitled Joint Information Center).

It is important that the public information presented during an emergency be clear, accurate, and consistent. Considering the number of agencies and jurisdictions that are likely to be part of a response to a CAI, these qualities can be assured only through careful coordination and planning among the agencies and jurisdictions involved. In the pre-emergency phase, each agency's or jurisdiction's procedures for disseminating public information should be coordinated and made compatible with the strategies developed by all other agencies and jurisdictions who may be affected by a chemical agent event.

Joint Information Center

A JIC is a physical location where public information specialists from the Army and Federal, State, and local jurisdictions, as well as volunteer and nongovernmental agencies, meet to coordinate the release of emergency public information. An effective JIC will gather, produce, and disseminate information using all available means, and should be large enough to accommodate expected staff and news media. JIC staff should monitor public phone calls and analyze news media coverage of the emergency, with a rapid response team addressing identified gaps in information, misinformation, or unconfirmed information (i.e.,

rumors or speculation) that may detrimentally affect the response and recovery effort. As with the JIS, senior management buy-in of the concepts of communicating through a JIC is imperative for the center to work effectively.

Identified JIS members should train and exercise the JIC structure as often as possible, including cross training in the specific JIC functions. All CSEPP exercises will include a proactive public information program.[42] The JIC should be activated in emergencies whenever feasible so that even in limited responses it becomes a familiar tool for PIOs, emergency responders, and the news media. This will allow for any glitches in procedures and protocols to be identified and fixed. Pre-event planning should also address surge situations where staffing, facilities, equipment, and other resources may be inadequate to meet the needs of the news media or public.

Key programmatic elements of a JIC include:

- **Provision for the facility**. Designate one or more JIC facilities near the installation, but preferably outside the IRZ. Typically arrangements are made to secure use of a suitable existing facility in the event of a CAI. An alternate location should be provided in case the primary location cannot be used. A mobile JIC equipment package could serve to fulfill this role, or be used to augment a primary JIC or another CSEPP site's JIC or mobile JIC.
- **Coordinated planning**. JIC staffing, equipment, and supplies should be provided for in emergency plans. Planning for the JIC should anticipate that Army, Federal, and State PIOs may be unable to report to the JIC, or that additional JICs may be established by other response organizations. For complex incidents spanning a wide geographic area, multiple JICs may be necessary. In particular, the Army installation may need to rely on a separate media center.
- **Communication systems**. Equipment and systems should be provided for communications to support the JIC. Adequate phone, radio, and computer linkage among all JICs and EOCs is critical.
- **Training and exercises**. The JIC structure should be exercised as often as possible, and the JIC concept should be explained to local news media representatives. The JIC should be activated in emergencies whenever feasible so that even in limited responses it becomes a familiar tool for PIOs, emergency responders, and the news media.

Plans for a virtual JIC that links all participants through technological means (as outlined by the December 2004 NRP[43]) will offer greater flexibility and expanded

[42] Department of the Army and FEMA. *CSEPP Policy Paper No. 9: Public Information in Connection with CSEPP Exercises.* 23 March 1993.
[43] DHS. *National Response Plan*. December 2004.

resources for 24-hour staffing. This in turn will reduce the need for volunteers in most CSEPP JICs and provide for CSEPP-trained PIOs to assist during any CAI.

For additional, detailed guidance regarding all aspects of establishing an emergency public information program, please consult the *CSEPP Public Affairs Planning Guidance Compendium Workbook*.[44]

[44] Department of the Army and DHS/FEMA. *CSEPP Public Affairs Planning Guidance Compendium Workbook*. Prepared by Argonne National Laboratory. June 2005.

Chapter VI—Training, Exercises and Assessments

Because of the unique hazards created by the storage and elimination of chemical weapons, CSEPP personnel and emergency responders must maintain specialized proficiencies to respond to CAIs. This can include practice with hazard-prediction modeling tools, use of PPE and medical countermeasures, sheltering-in-place drills, decontamination procedures, communications exercises, and other technical aspects of incident command, hazardous material response, and emergency medical treatment.

A Federally developed exercise program evaluates and demonstrates the abilities of communities and installations to respond to CAIs. Exercises are an important element in evaluating the implementation of emergency response plans and assessing the adequacy of plans and procedures, the capabilities of Federal, State, local, and installation response elements, the availability of equipment, and the coordination among the response elements. Exercises also identify needed improvements and possible new funding requirements. These exercises provide the basis for assessing the overall readiness of the installations and communities.

The Army and DHS are required to annually assess and report to Congress on funded activities to improve emergency preparedness and response capabilities at CSEPP communities.[45] The CSEPP National Benchmarks are used to assess these capabilities, resulting in a unique community profile for each location. These measures represent the communities' self-assessment of their readiness to respond to potential CAIs. They are also a key tool in the planning, programming, and budgeting of CSEPP efforts at the installations, State, tribal, and local governments. Additionally, the exercise component to CSEPP, when combined with the National Benchmarks and other functional areas, assists in developing the Community Profile. The exercise results and the Community Profile present annual assessments that drive actions toward improving CSEPP performance over the next year.

A. Training

Training within CSEPP is critical since, the program addresses a hazard with unique elements that responders are not likely to encounter in everyday experience. CSEPP training should be performance-based; that is, it should be tailored to (1) the different functions identified in the Emergency Operations Plan (EOP), (2) the characteristics of the personnel who will implement those functions, and (3) the environment in which the response will take place. Personnel should receive job-specific training to ensure they can perform the functions for which they are responsible. Where applicable, training programs

[45] Reference 50 U.S. Code Section 1521, subparagraphs (c) (5) (C) and (g).

should incorporate an evaluation procedure or technique that verifies that the trainees are gaining the skills and knowledge required to perform their emergency responsibilities during both exercises and actual crises.

Individual training plans should be based on a needs assessment that identifies the training requirements for various categories of response personnel. Topics for such training include, but are not limited to, EOC operations, decision making, medical care, recognition of chemical agent exposure symptoms, contamination avoidance and control, emergency care, and use of automation systems. The training program for these areas should include drills to ensure proficiency. The need for training should be identified through analysis of CSEPP operational requirements, as well as documented performance deficiencies noted during CSEPP drills and exercises.

Training Courses

Training courses are developed through the coordinated efforts of Federal, State, and local officials. Planning and implementation assistance are provided by the appropriate Federal and State emergency preparedness officials. While basic training program issues, such as definition of audience, objectives, design, location, and type of training are coordinated and decided by several organizations, local training program are administered primarily by the State or local emergency management organization which is responsible for maintaining training records (see the 1999 *CSEPP Training Management Guidance*,[46] to be replaced in 2005, for roles and responsibilities). To standardize the level of CSEPP medical competency by medical providers, specific criteria have been identified as to the minimum level of training and education required. This is described in Chapter 3 of the *CSEPP Planning Guidance*.

CSEPP personnel should use existing general emergency training opportunities and materials to the maximum. All training should be accomplished in the most appropriate and effective manner possible.

Training Drills

Drills are intended to develop, maintain, and test skills specific to a single response activity. Individual planning elements (e.g., alert and notification, communications, and rescue) can be evaluated in a drill. The value of a drill is that it addresses a single component of the response activity at a minimum cost by using only personnel and equipment identified for that specific function. The frequency of such training drills is determined by such factors as personnel turnover, plan and procedure complexity, and change and criticality of the function. While simultaneous drills can be conducted for several elements (e.g., a

[46] FEMA and the Department of the Army. *Chemical Stockpile Emergency Preparedness Program Training Management Guidance*. April 1999.

communications drill and an alert and notification drill), each should be relatively limited in scope.

Certifying and Credentialing Personnel

Personnel should go through a process of certification attesting that individuals meet professional standards for the training, experience, and performance required for incident management functions. A system of credentialing should be established to authenticate and verify the certification and identify designated incident managers and emergency responders. This system should be used to help ensure that personnel representing various jurisdictional levels and functional disciplines possess a minimum common level of training, currency, experience, physical and medical fitness, and capability for the incident management or responder position that they are tasked to fill.

Training Required to Accompany Field Monitoring and Sampling Teams

State and/or local personnel may accompany Army sampling and monitoring teams to conduct off-post sampling missions under the condition that they are properly trained, qualified, and equipped in accordance with the OSHA hazardous waste operations (HAZWOPER) regulations (29 CFR 1910.120). Additionally, State or local personnel observing or accompanying the Army sampling teams must be fully trained and certified by the Army in chemical agent awareness and Army chemical agent sampling procedures. This training will be made available as resources permit to state or local personnel who are already trained in accordance with HAZWOPER requirements. CSEPP will not fund HAZWOPER training solely for off-post responders to accompany Army sampling teams.

B. Exercises

Army/DHS CSEPP policy on exercises is articulated in *Exercise Policy and Guidance for the Chemical Stockpile Emergency Preparedness Program* document, also known as the "*Blue Book*."[47] This replaces *CSEPP Policy Paper 12: Chemical Stockpile Emergency Preparedness Program (CSEPP) Exercises*.[48] Similarly, this chapter and the *Blue Book* have incorporated the words of *CSEPP Policy Paper 16: CSEPP Modified Exercise Schedule*.[49]

The purpose of CSEPP exercises is to:

- Help evaluate emergency plans, response capability, and training adequacy;

[47] Department of the Army and DHS/FEMA. *Exercise Policy and Guidance for the Chemical Stockpile Emergency Preparedness Program*. 7 Sept. 2004.
[48] Department of the Army and FEMA. *CSEPP Policy Paper No. 12: Chemical Stockpile Emergency Preparedness Program (CSEPP) Exercises*. 2 March 1994.
[49] Department of the Army and FEMA. *CSEPP Policy Paper No. 16: CSEPP Modified Exercise Schedule*. 4 March 1998.

- Provide feedback necessary to improve plans and procedures;
- Improve coordination and relationships between Army and community personnel;
- Ensure continued involvement of key community organizations; and
- Serve as visible demonstrations of the commitment of the Army, DHS, states, and local jurisdictions to protect the public.

The exercises are a component of the continuous cycle of planning, training, exercising, and evaluation that is necessary to maintain readiness. (see Figure 7).

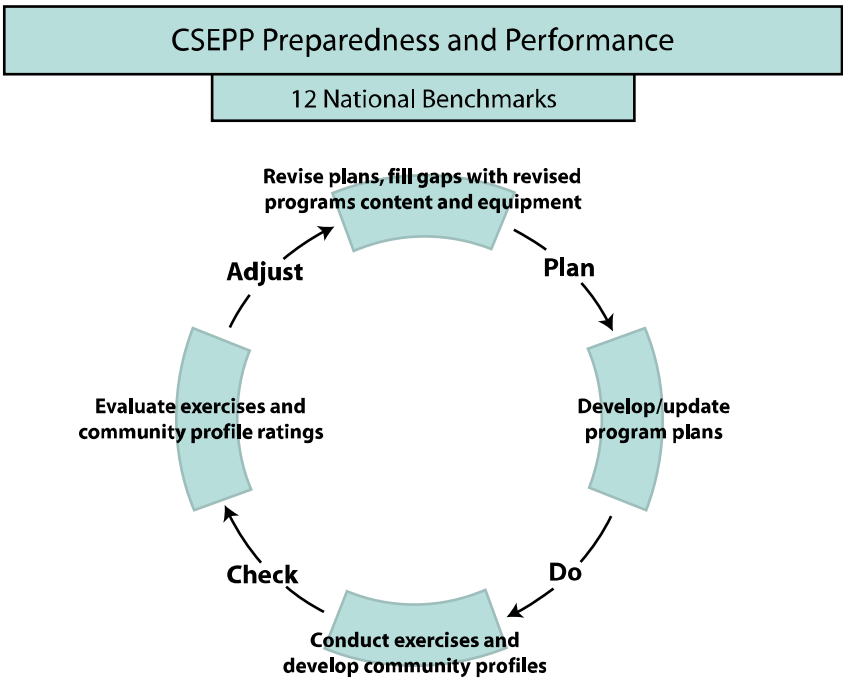

Figure 7: Utilizing Exercises to Evaluate and Improve CSEPP

Within the CSEPP Exercise Program, there are two types of exercises. They are the Federally Managed Exercise (FME) and the Alternate Year Exercise (AYE). FMEs and AYEs are conducted at each site in alternate years. In addition to FMEs and AYEs, installations and off-post responders may conduct tabletop remediation and recovery exercises (see Outcome 8 and Appendix G of the *Blue Book*[50]). Tabletop exercises do not include field play, typically do not involve use of a Simulation Cell (SIMCELL), and generally use a relatively simple scenario compared to an FME or AYE.

[50] U.S. Department of the Army and DHS/FEMA. *Exercise Policy and Guidance for the Chemical Stockpile Emergency Preparedness Program*. 7 Sept. 2004.

Federally Managed Exercise

A FME is a mandatory, Federally evaluated readiness assessment of a community's full capabilities to respond to a CAI. FMEs ares conducted at each CSEPP site every two years. An FME is driven by an Extent of Play Agreement (XPA), a scenario, and related events that allow for realistic participant response. The negotiated XPA for the FME is developed to ensure that the community, as a whole, will address all applicable CSEPP emergency response outcomes (see Appendix C of the *Blue Book*[51]). The community exercise planning team, under the lead of the Army and DHS Co-Directors, is responsible for exercise planning. The Army and DHS Co-Directors are responsible for exercise conduct, evaluation, and the exercise report. For FMEs, states and counties may demonstrate emergency response functions for CSEPP exercise credit at other times (e.g., actual events, CAIRA exercises, Radiological Emergency Preparedness [REP] exercises, or other exercises) in accordance with established DHS policy and as approved by the DHS Exercise Co-Director. This will be documented in the annual *CSEPP Exercise Report*.

An FME provides a comprehensive evaluation of a community's emergency response system. The FME involves mobilization of emergency service and response agencies, activation of communications centers and emergency facilities such as EOCs and command posts, and field play. Each jurisdiction's XPA should reflect its involvement in the exercise scenario. Thus, each jurisdiction should demonstrate for evaluation all actions required to support the scenario in accordance with plans, procedures, and the negotiated XPA. The exercise should be conducted for a minimum of 4.5 hours and should continue until all participating organizations have had an opportunity to demonstrate appropriate actions.

Alternate Year Exercise

AYEs are held at each site in years when an FME is not held. All CSEPP jurisdictions should participate in the AYE. An AYE is to be used by a community to:

- Train;
- Evaluate EOPs/Standard Operating Procedures (SOPs);
- Evaluate procedures for new equipment or resources;
- Validate corrections to outstanding Findings Requiring Corrective Action (FRCAs); and
- Address other issues.

Army installations will exercise their full emergency response capability every year. Scheduling will be conducted to accommodate the Army's Initial Response

[51] Ibid.

Force Exercise (IRFX) cycle. The CSEPP AYE report will satisfy IRFX reporting requirements. A community may request varying levels of Federal support and/or management for their AYE, as determined by the community exercise planning team. Depending upon the level of Federal support requested, either the State or CSEPP Region Representative will be designated the Off-post Exercise Co-Director.

The exercise support contract is a Federal contract, which requires Federal oversight. For both the FME and AYE, contractor support needs are determined by and coordinated between the exercise Co-Directors. The CSEPP Region Representative on the exercise planning team is responsible for forwarding the request for support to CSEPP HQ. CSEPP HQ will issue an Exercise Support Task Order. The DHS Contracting Officer's Representative (COR) has delegated oversight, tasking responsibilities, and control over contractor activities for that exercise to the Federal Co-Directors, or the Army Co-Director and Federal Off-post Manager for an AYE with a State Co-Director, within the bounds of the task order.

The level of support desired must be identified no later than March of the preceding fiscal year. The community members prepare a budget to support the respective community's components of the AYE. As some of the funds that would have been used for a full FME may be used to fund the AYE, and in order to avoid duplication of effort, the exercise planning team should consider the following:

- Who will supply Automated Data Processing (ADP) equipment, meeting rooms, copying machines, and communication equipment, including telephones and facsimile machines, at the exercise site?
- What exercise documents (e.g., Exercise Plan [EXPLAN], Control Staff Instructions [COSIN], communication directories, exercise reports, various exercise forms) are required for the exercise, and who will produce and distribute them?
- Who will work with the Army to determine their off-post requirements in the SIMCELL, coordinate requirements, and provide personnel for the Army table in the SIMCELL?

Exercise Design, Planning, and Evaluation

The exercise scenario includes the initiating event and other key events that provide the framework for the exercise response to take place. The exercise planning team has primary responsibility for development of the scenario. Any sensitivity that the installation or surrounding communities may have regarding the contamination of certain areas, particular initiating events, or other restrictions should be discussed before the scenario is developed. The initiating event and meteorological conditions chosen for the scenario must be within the CSEPP planning base to allow demonstration of the emergency response by the

community. The requirement for a potential off-post impact may force the choice of some low-probability, high-impact event sequences.

General

The CSEPP exercises are conducted on a biennial cycle. During one year of the cycle, each CSEPP community will participate in an FME with Army and CSEPP Co-Directors. In the other year, the CSEPP exercise is a designated AYE. The AYE may be managed by the Army and State Co-Directors, or by the Army and CSEPP Co-Directors as negotiated. Provision of the AYE in alternating years is intended to give communities an opportunity to use the resources of the CSEPP exercise program to design and conduct their own exercises to meet their own particular needs. Exercise planning teams should plan ahead for AYEs by determining as early as possible when they prefer a locally run exercise (State Representative serving as Off-post Co-Director) so that the exercise resources needed can be included in the state's CSEPP budget (see Section 3.2.2 of the *Blue Book*[52] for Federal support for an AYE). For a State/Army AYE, DHS will support the state by coordinating Federal support as requested. FMEs will not be separated by more than one AYE.

Planning the Exercise

The Exercise Co-Directors plan the exercise with the planning team. Exercise planning teams will include representatives from all participating jurisdictions and organizations for each exercise. As previously noted, the team is co-chaired by Army and DHS representatives for FMEs, or by Army and State representatives, if agreed, for locally managed AYEs. The team will provide the necessary expertise on local plans and procedures to ensure the exercise is properly designed to meet the needs of the jurisdictions and the goals of the program. Planning for an exercise begins approximately a year ahead of time; an example of a planning timeline is furnished in Figure 4.1 of the *Blue Book*.[53]

An FME involves the entire CSEPP community. Each jurisdiction's participation is based on the premise that the CSEPP community demonstrates all applicable emergency response plans and procedures. The planning team should identify scenario parameters that will be realistic and that will cause the community to demonstrate the full range of emergency functions as reflected in the emergency response outcomes specified in Appendix C of the *Blue Book*.[54] For all exercises, the Exercise Co-Directors will ensure that the initiating event is within the planning base of the maximum credible events (MCEs) for the installation and that full scenario development drives off-post response.

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[52] U.S. Department of the Army and DHS/FEMA. *Exercise Policy and Guidance for the Chemical Stockpile Emergency Preparedness Program*. 7 Sept. 2004.
[53] Ibid.
[54] Ibid.

Demonstration of Emergency Response Plans and Procedures

The CSEPP community will be required to demonstrate all applicable emergency response plans and procedures during the FME. This requirement applies to the community as a whole, not to individual jurisdictions. However, each jurisdiction will demonstrate for evaluation all actions in order to support the scenario. The AYEs afford greater flexibility in exercising the training aspects of responders by the off-post CSEPP communities. The AYE enables the community to incorporate local innovations or exercise design features targeted to their needs.

A set of eight standard emergency response outcomes are used in planning for and evaluating each CSEPP FME. A series of tasks has been prepared for each emergency response outcome to aid the evaluator in collecting data needed to determine if the outcome was successfully demonstrated in an exercise. Outcomes, tasks and supporting performance criteria are provided in Appendix C of the *Blue Book*[55]

The CSEPP exercise report documents the results of the exercise. The report provides a means for recommending improvements, tracking performance, and addressing FRCAs noted in prior exercises. The exercise evaluation and development of the exercise report consists of analysis from the evaluators who observed the exercise play and may include player self-assessment. Development of accurate, useful information requires cooperation and candor between the evaluators, controllers, and players. The format for and guidelines concerning content of the exercise report are found in Appendix A of the *Blue Book*.[56] For FMEs, the Army and DHS/CSEPP Co-Directors are responsible for developing and publishing the exercise report. For AYEs, the Army and designated Off-post Co-Directors are responsible for developing and publishing the exercise report. The Exercise Co-Directors have the flexibility to include additional information in the report that will be of use to the jurisdictions.

Army-Mandated Exercises

Installations have an Army-mandated schedule of exercises (e.g., quarterly CAIRA exercises). Off-post jurisdictions may opt to participate in those or other exercises they consider appropriate.

Compensation for Exercise Volunteers

Limited compensation is available to civilian volunteer emergency responders participating in FMEs.[57] This compensation applies only to volunteers who are in jurisdictions in the path of the plume and jurisdictions providing direct support to those jurisdictions in the plume's path. Examples of direct support include

[55] U.S. Department of the Army and DHS/FEMA. *Exercise Policy and Guidance for the Chemical Stockpile Emergency Preparedness Program*. 7 Sept. 2004.
[56] Ibid.
[57] Department of the Army and FEMA. *CSEPP Policy Paper No. 11: Compensation for Volunteer CSEPP Exercise Participants* (Revised). 7 November 1995.

operation of congregate care centers/reception centers, hospitals, and TCPs/ACPs. The compensation will be provided by State Emergency Management Officers through the CSEPP CAs. Funding allocations will be considered on a case-by-case basis and will require reasonable and prudent justification in the CAs.

This compensation is limited to volunteer emergency responders and is not available for full-time staff. It is also limited to incidentals such as meals and transportation, although the choice of whether to provide these items to the volunteers or have their costs reimbursed shall be left to the states. It does not include salaries and benefits.

C. Community Profiles

In reporting the annual status of CSEPP efforts, the communities' CSEPP Program Managers provide a self-assessment of their capabilities prior to their annual exercise (both FMEs and AYEs).[58] This profile matches the current CSEPP National Benchmarks, with other categories included, and is based on community negotiations with the Exercise Co-Directors. The community profile should be prepared no later than thirty days prior to the exercise for incorporation into both the exercise plan and the final exercise report, as identified in Appendix A of the *Blue Book*.[59] This profile is a tool for the exercise evaluation team to gain an insight into the community's capabilities, as well as for the community to determine areas needing attention.

Profile capabilities for each of the 12 Benchmarks are identified as either "capable," "partially capable" (able to respond but needs minor improvement), "marginally capable" (able to respond but needs major improvement), or "not capable" of response. DHS HQ reports on the chemical stockpile sites' community profiles, along with discussions of how the communities are improving and sustaining their capabilities, in the annual *CSEPP Report to Congress*.

The exercise component, when combined with the National Benchmarks and other functional areas, assists in developing the overall Community Profile. The exercise results and the Community Profile present annual assessments that drive actions toward improving CSEPP performance over the next year.

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[58] Department of the Army and FEMA. *CSEPP Policy Paper No. 19: Community Profile*. 17 November 2000.

[59] U.S. Department of the Army and DHS/FEMA. *Exercise Policy and Guidance for the Chemical Stockpile Emergency Preparedness Program*. 7 Sept. 2004.

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Chapter VII—Program Adjustments and Closeout

As long as there are chemical agents and munitions in storage or being destroyed, there will be a degree of risk that calls for the CSEPP community to maintain a robust baseline capability through the end of disposal operations. There are two clear circumstances under which CSEPP jurisdictions could execute adjustments or close-out operations: (1) upon the quantitative reassessment of risk at a given installation, geared to a major milestone such as the completion of nerve agent destruction; and (2) when all agent and munitions are destroyed and the disposal facility has begun closeout operations. In the first case, the CSEPP community will reassess its emergency preparedness in response to any risk reduction that results from chemical demilitarization activities, potentially resulting in a reduction in the number of participating jurisdictions or the level of personnel and equipment. In the second case, the CSEPP community must plan for the complete transition of CSEPP personnel, equipment, and infrastructure to programs other than the Army-funded CSEPP, or dismantlement of those capabilities no longer required (or sustainable) by the community. In both cases, the percent of risk reduction does not necessarily correlate to the percent of funding reduction or loss of personnel slots. Throughout this planning process, the Army and DHS HQ will involve the stakeholders in analysis and execution of any decisions. This chapter outlines processes by which installations, State, local and tribal governments should plan for the eventual end of CSEPP.

A. Adjusting the CSEP Program

The intent of adjustments to the CSEP Program is to maintain maximum protection practicable throughout demilitarization operations while reducing CSEPP requirements in line with the quantified reduction of risk to the public. In the course of disposal operations, as chemical agents and munitions are destroyed, the overall risk to the community is reduced. As risk is reduced, there may be the opportunity to reduce the CSEPP at these sites in terms of resources and the size of EPZs. This is not a continuous process; any analysis and following actions should only follow the end of major disposal campaigns, where major drops in risk are anticipated. At each critical point, the Army will update the Quantitative Risk Assessments (QRAs) to reevaluate the level of risk and to identify the most credible event scenario for future planning purposes.

Based on the QRAs, the site IPT should lead the discussion on any proposed risk reduction efforts with assistance from the Closeout IPT as required. There should be participation by all Federal, State, and local stakeholders, with the goal of joint acceptance of the results. The group should consider a risk-based planning zone concept, as successfully demonstrated by Maryland's IPT in 1996. Another successful practice is Alabama's development of emergency action risk criterion for the protection of its citizens against CAIs. The Alabama CSEPP community adopted the quantitative measure of $4x10^{-7}$ fatalities per year, or one fatality in

2,500,000 years.[60] This number was generated by applying the 0.1 percent factor to the average fatality risk from accidents to members of the U.S. general population, or $4x10^{-4}$ fatalities per year. This risk criterion is consistent with existing emergency action criteria used by the Nuclear Regulatory Commission.[61] This means that the Alabama CSEPP has an obligation to protect the general public in those counties that demonstrate a risk greater than $4x10^{-7}$ from potential CAIs.

The Army and DHS HQ will work with the site IPTs throughout the process to reassess the program requirements. DHS HQ will work with the CSEPP regional field office and CSEPP communities on assessing the potential impact of CAIs based on the updated QRAs and validating how these changes impact the required CSEPP capabilities. This will include identification of appropriate planning bases, required resources, and a timeline for executing any reduction of capabilities. Upon completion of such re-evaluations, the local jurisdictions and states will revise their plans, procedures, and concepts of operation and then adjust their LCCE accordingly.

In any CSEPP adjustment, it is understood that a core CSEPP emergency preparedness and response capability must be maintained to ensure the maximum protection practicable for the general population. The value of reducing the CSEPP effort at these sites prior to the end of disposal operations is two-fold. First, gradually dismantling unnecessary equipment, such as collective protection systems and communication devices for counties that are no longer at risk from CAIs, will ease the burden of completing the closeout of CSEPP efforts when disposal operations are complete. Secondly, reducing the CSEPP effort at these sites demonstrates that the Army, DHS, and states are being good guardians of public funds.

B. Transition to Closeout

Because successful accomplishment of the chemical demilitarization program will eliminate the need for personnel, planning, and equipment specifically for responding to CAIs, all CSEPP jurisdictions should plan for a smooth, controlled shutdown of the program. Jurisdictions should formally discuss and develop a coordinated closeout plan addressing the future of existing CSEPP infrastructure, personnel, and capabilities. Large-scale planning and inter-jurisdictional coordination can be achieved through the Community IPT or designated workgroup; at the jurisdictional level, wider participation will likely be necessary, recognizing that some other organizations impacted by the closeout (e.g., hospitals) will need to be involved. Although the closeout plan may undergo

[60] Army/FEMA Joint Memorandum, "Alabama Chemical Stockpile Emergency Preparedness Program Risk Criterion Policy for Protective Action Decisions," dated March 31, 2000.
[61] See NRC memorandum SECY 01-0009, http://www.nrc.gov/reading-rm/doc-collections/commission/secys/2001/secy2001-0009/2001-0009scy.html, and 51 FR 30028, http://www.nrc.gov/reading-rm/doc-collections/commission/policy/51fr30028.pdf.

continual refinement over time, an interim plan will be critical to ensuring that any associated funding requirements are reflected in the LCCE process. As appropriate, this effort should be performed in close coordination with the risk reduction initiative previously described to provide a consistent roadmap for the future.

Closeout planning efforts should consider the long-term usefulness of CSEPP-funded facilities, equipment, and systems (e.g., sirens and collective protection systems) and alternative funding sources to support their maintenance. Whether any redistribution is envisioned, Federal, State, tribal, and local equipment inventory and disposition requirements will need to be reviewed. Management and timing of contracts, leases, and licenses supporting all phases of operations will need to be addressed. Plans, procedures, training, and exercises will need to be modified to reflect post-CSEPP risks and response capabilities; if a jurisdiction is closing out prior to the CSEPP community as a whole, mutual aid issues will be especially important. Jurisdictions should also consider how their personnel and experience can be transferred to other applicable emergency preparedness and response programs, or what severance and termination procedures may be available.

C. Post-Operations Closeout

Based on regulatory requirements, to completely close out the CSEPP CA, it may take six to eight months following the end of disposal operations. Each CSEPP community must work with DHS to complete all required reports, dispose of or return all Federally-owned assets, and adjust any monetary awards that are not obligated or spent under the CA. For example, all financial, performance, and other reports required as a condition of the CSEPP CA must be submitted within 90 days of the end of the performance period (an extendable timeframe). Within 90 days of receipt of the CSEPP grantee's final report, DHS will make any upward or downward adjustments to allowable costs. The CSEPP grantee must then refund any balance of unobligated cash advanced.

As the Army establishes its demilitarization schedule, CSEPP jurisdictions should document specific activities (with associated timeframes and funding requirements) that need to be implemented upon completion of disposal operations. These activities may include, but are not restricted to, the dismantlement of collective protection systems and sirens and disposition of excess equipment. As necessary, resources required for these activities should be identified for each jurisdiction in the LCCE. Prior to the year in which disposal operations are to be completed, the grantee should prepare and submit a CA application for the final CSEPP program year. Associated budget and staff work plans may incorporate up to a full year of costs to address potential small-scale slippage in the disposal schedule. Any greater slippage can be addressed through an additional year of the CA.

Simultaneously, the grantee should develop a separate budget for review by DHS restricted to closeout expenses for the year after disposal operations are completed. This "closeout" CA may not be necessary for all CSEPP grantees, especially those sites that expect to complete closeout activities within the same fiscal year of the end of disposal operations (e.g., those with relatively small CSEPP footprints). This closeout CA would be submitted following the actual completion of disposal operations. Alternatively, DHS and the community may decide to incorporate closeout into the CA for the year in which disposal operations cease. Both options may necessitate an extension of the associated period of performance. All closeout projects must be completed within the performance period, and should not include funding for any emergency preparedness and response activities.

The Closeout IPT will develop guidance to support the closeout process and work with DHS, the Army, and each CSEPP community (as requested) to facilitate the smooth transition of each state and local jurisdiction from its fully resourced CSEPP baseline to a sustainable post-disposal state of conditions. This will include issues such as coordination of on- and off-post closeout planning, transfer of equipment and system ownership, and communication of the closeout message to the general public, as well as analyses of ways to reduce the scope of post-disposal projects, such as shifting project funding and oversight from CSEPP regional field offices to DHS HQ contracts. In addition, the IPT will address closeout issues unique to those CSEPP jurisdictions that may be impacted by risk reduction efforts prior to the closeout of their entire community.

D. Funding Implications

Public Law 105-261 specifies that no assistance may be provided to State and local governments in developing capabilities to respond to emergencies involving the storage and destruction of lethal chemical agents and munitions after the completion of the destruction of the U.S. chemical weapons stockpiles.[62] The term "lethal chemical agent and munition" is defined as a chemical agent or munition that is designed to cause death through its chemical properties to human beings in field concentrations. This definition does not include storage facilities, disposal facilities, or secondary waste products that are created as a result of disposal operations. Destruction of these agents and munitions is defined as the demolishing, dismantling, or other disposal so as to make them useless for military purposes and harmless to human beings under normal circumstances. Destruction of storage facilities, disposal facilities, and secondary waste products is a process of the chemical demilitarization program, but is not expected to create a risk to the general population as chemical agents and munitions do. Because of these issues, it is important that the community discuss and reach an agreement with the Army in advance on what is meant by the "destruction of the stockpile"—the conditions at the site under which the stockpile will be considered

[62] Relevant portions of this law have been codified as 50 U.S. Code 1521 (c) (5) (B).

destroyed (e.g., the status of agent(s), munitions, containers, waste products, and facilities and equipment) and the associated risk.

Each CSEPP community and each jurisdiction within these communities has established and maintains an LCCE to identify anticipated funding requirements on an annual basis until the end of the program. Until the Army has completed the destruction of each installation's stockpile of lethal chemical agents and munitions, the Army and DHS will continue to request and expend appropriated funds to provide assistance to each state that hosts an active chemical destruction effort for the purposes of emergency preparedness and response to a CAI. The most important objective of these funds is to develop and maintain those capabilities required to avoid fatalities to the maximum extent practicable, should an accidental release of chemical agent occur. In the fiscal years after completion of the destruction of the installation's stockpile, the Army will not request additional funding for that CSEPP state for the purposes of developing or maintaining emergency preparedness and response capabilities.[63] The Army will fund efforts to complete the closeout of CSEPP following the end of disposal operations as discussed in the previous section.

[63] HQDA memorandum to FEMA HQ. *Termination of the Chemical Stockpile Emergency Preparedness Program (CSEPP)*. July 20, 2001.

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Appendix A—Acronym and Abbreviation List

ACP	Access Control Point
ACWA	Assembled Chemical Weapons Alternatives
AEGLs	Acute Exposure Guideline Levels
AEL	Airborne Exposure Limit
AR	Army Regulation
ASA(ALT)	Assistant Secretary of the Army for Acquisition, Logistics and Technology
ATAP	Alternative Technologies and Approaches Project
AYE	Alternate Year Exercise
CA	Cooperative Agreement
CAI	Chemical Accident or Incident
CAIRA	Chemical Accident or Incident Response and Assistance
CDC	Centers for Disease Control and Prevention
CDP	Chemical Demilitarization Program
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CMA	Chemical Materials Agency
CONUS	Continental United States
COR	Contracting Officer's Representative
COSIN	Control Staff Instructions
CSEPP	Chemical Stockpile Emergency Preparedness Program
DA Pam	Department of the Army Pamphlet
DASA(ECW)	Deputy Assistant Secretary of the Army for Eliminating Chemical Weapons
DATSD(CBD&CDP)	Deputy Assistant to the Secretary of Defense, Chemical Biological Defense and Chemical Demilitarization Programs
DoD	Department of Defense
DHS	Department of Homeland Security
EAS	Emergency Alert System
EEG	Exercise Evaluation Guide
EMS	Emergency Medical System
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPZ	Emergency Planning Zone
EXPLAN	Exercise Plan
FCO	Federal Coordinating Officer
FEMA	Federal Emergency Management Agency
FME	Federally Managed Exercise
FRCA	Finding Requiring Corrective Action
GAO	Government Accountability Office
GB	nerve agent
GPL	General Population Limit

GPRA	Government Performance and Reporting Act
HAZWOPER	Hazardous Waste Operations and Emergency Response
H	blister agent
HD	blister agent
HT	blister agent
HQ	Headquarters
HQ AMC	Headquarters, Army Materiel Command
HQDA	Headquarters, Department of the Army
IDLH	Immediately Dangerous to Life or Health
IPT	Integrated Process Team
IRF	Initial Response Force
IRZ	Immediate Response Zone
IRFX	Initial Response Force Exercise
JCAHO	Joint Commission on Accreditation of Healthcare Organizations
JIC	Joint Information Center
JIS	Joint Information System
LCCE	Life Cycle Cost Estimate
MCE	Maximum Credible Event
MEG	Medical Evaluation Guide
MIPT	Medical Integrated Process Team
MOU	Memorandum of Understanding
MOA	Memorandum of Agreement
MSDS	Material Safety Data Sheet
NCP	National Contingency Plan
NFPA	National Fire Protection Association
NIC	NIMS Integration Center
NIMS	National Incident Management System
NOAA	National Oceonic and Atmospheric Administration
NRC	National Response Center
NRP	National Response Plan
ODASA(ECW)	Office of the Deputy Assistant to the Secretary of the Army for the Elimination of Chemical Weapons
OSC	On-Scene Coordinator
OSD	Office of the Secretary of Defense
PAD	Protective Action Decision
PA IPT	Public Affairs Integrated Process Team
PAR	Protective Action Recommendation
PAZ	Protective Action Zone
PFO	Principal Federal Official
PIO	Public Information Officer
POM	Program Objective Memorandum
PPBE	Planning, Programming, Budgeting, and Execution
PPE	Personal Protective Equipment
QRA	Quantitative Risk Assessment
REP	Radiological Emergency Preparedness

SIMCELL	Simulation Cell
SIP	Shelter in Place
SOP	Standard Operating Procedure
SRF	Service Response Force
STEL	Short-Term Exposure Limit
TARs	Tone Alert Radios
TCP	Traffic Control Point
TWA	Time-Weighted Average
USD(ATL)	Under Secretary of Defense for Acquisition, Technology and Logistics
VX	nerve agent
WPL	Worker Population Limit
XPA	Extent of Play Agreement

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Appendix B—Glossary of Terms and Definitions

Alert and Notification System—a combination of sirens, tone alert radios, and other means to be used in the IRZ and selected portions of the PAZ to provide alert and emergency instructions to the public.

Casualty—any person who is declared dead or is missing, ill, or injured (NRP).

Catastrophic Incident—any natural or manmade incident, including terrorism that results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, and/or government functions. All catastrophic events are Incidents of National Significance (NRP).

Chemical Accident/Incident (CAI)—unintentional chemical event where chemical agent is released into the ambient atmosphere and either threatens unprotected personnel or has the potential to threaten unprotected personnel. It includes chemical accidents resulting from non-deliberate events where safety is of primary concern, and chemical incidents resulting from deliberate acts or criminal acts where security is of concern (DA PAM).

Chemical Agent—a chemical substance listed in Appendix B of AR 50-6 that is intended for use in military operations to kill, seriously injure, or incapacitate a person through its physiological properties. Excluded from consideration are industrial chemicals, riot control agents, chemical herbicides, smoke and flame munitions (DA PAM).

Chemical Demilitarization Program—the overall DoD program that is responsible for eliminating all stockpile and non-stockpile chemical agents, munitions, and related materials in U.S. states and territories. This program includes the Chemical Stockpile Disposal Program, the Alternative Technologies and Approaches Project, the Non-Stockpile Chemical Materiel Product, the Chemical Stockpile Emergency Preparedness Program, and the Assembled Chemical Weapons Alternatives Program.

Chemical Event—the term encompasses chemical agent material accidents, incidents, and other circumstances where there is a confirmed or likely release to the environment, exposure of personnel, leaking munition, threat to the security of chemical agents, or incident of concern to the local Commander (DA PAM).

Chemical Event Emergency Notification System—a tiered system by which the Army classifies chemical surety emergencies according to expected downwind hazard distance and provides appropriate notification to off-post public officials.

Chemical Stockpile Disposal Program (CSDP)—a congressionally-mandated program that requires the Army to dispose of all of its unitary chemical agents and

munitions at its chemical stockpile sites while ensuring maximum protection to the environment, general public, and personnel involved in the destruction effort.

Chemical Stockpile Emergency Preparedness Program—a joint Army/DHS program designed to enhance existing local, installation, tribal, State, and Federal capabilities to protect the health and safety of the public, work force, and environment from the effects of a chemical accident or incident involving the U.S. Army chemical stockpile.

Chemical Surety—a system of control measures designed to provide protection to the local population, workers and the environment by ensuring that chemical agent operations are conducted safely; that chemical agents are secure; and that personnel involved in those operations meet the highest standards of reliability (AR).

Contamination—a chemical agent, generally in liquid form, deposited on skin, clothing, or any other material that constitutes a source of potential agent exposure until it is neutralized, removed, or degrades naturally.

CSEPP Community—the combined area of one military installation, its surrounding local jurisdictions, and the State agencies involved in executing CSEPP for that area.

CSEPP Hospital—a hospital in the vicinity of a chemical installation that has been designated for participation in the CSEP Program by the CSEPP regional field office.

CSEPP Jurisdiction—the smallest area of geography within which political authority may be exercised with regards to CSEPP (e.g., a county or city).

Decontamination—the process of decreasing the amount of chemical agent on any person, objective, or area by absorbing, neutralizing, destroying, ventilating, or removing chemical agents (DA PAM).

Demilitarization—the mutilation, destruction, or neutralization of chemical agent material, rendering it harmless and ineffectual for military purposes (DA PAM).

Disaster—see Major Disaster.

Emergency—as defined by the Stafford Act, any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States (NRP).

Emergency Alert System (EAS)—system created by the Federal Communications Commission as a means of using communications facilities to alert the public to emergencies. Formerly known as the Emergency Broadcast System.

Emergency Operations Center (EOC)—the physical location at which the coordination of information and resources to support domestic incident management activities normally takes place. May be a temporary facility or located in a more central or permanently established facility (NRP).

Emergency Operations Plan (EOP)—the "steady-state" plan maintained by various jurisdictional levels for managing a wide variety of potential hazards (NRP).

Emergency Planning Zone (EPZ)—a geographical area delineated around a potential hazard generator that defines the potential area of impact. Zones facilitate planning for the protection of people during an emergency.

Evacuation—organized, phased, and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas (NRP).

Exposure—contact by a person or animal with chemical agent in either liquid or vapor form through inhalation, contact with the eyes or skin, or ingestion of contaminated food or water. Vapor exposure does not necessarily lead to contamination.

Federal On-Scene Coordinator (FOSC or OSC)—the Federal official predesignated by the EPA or the USCG to coordinate responses under subpart D of the NCP, or the government official designated to coordinate and direct removal actions under subpart E of the NCP (NRP).

First Responder—local and nongovernmental police, fire, and emergency personnel who, in the early stages of an incident, are responsible for the protection and preservation of life, property, evidence, and the environment, including emergency response providers as defined in section 2 of the Homeland Security Act of 2002 (6 USC 101), as well as emergency management, public health, clinical care, public works, and other skilled support personnel (such as equipment operators) who provide immediate support services during prevention, response, and recovery operations. First responders may include personnel from Federal, State, local, tribal, or nongovernmental organizations (NRP).

Immediate Response Zone (IRZ)—the emergency planning zone immediately surrounding each Army installation. Generally it extends to about 6 miles from the installation's chemical storage area.

Incident Command System (ICS)—a standardized on-scene emergency management construct specifically designed to provide for the adoption of an integrated organizational structure that reflects the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries. ICS is the combination of facilities, equipment, personnel, procedures, and communications operating with a common organizational structure, designed to aid in the management of resources during incidents (NRP).

Initial Response Force (IRF)—an emergency actions organization tasked to provide first response to a CAI at an installation assigned a chemical surety mission or in the public domain. Under the command of the Installation Commander or Commander of the nearest Army installation, the IRF is comprised of command and control elements and emergency teams capable of providing emergency medical services and initiating those actions necessary to prevent, minimize, or mitigate hazards to public health and safety or to the environment. (DA PAM)

Joint Information Center (JIC)—a facility established to coordinate all incident-related public information activities (NRP). A media information center for SRF Commander's PAO (DA PAM).

Joint Information System (JIS)—integrates incident information and public affairs into a cohesive organization designed to provide consistent, coordinated, timely information during a crisis or incident operations (NRP).

Local Government—a county, municipality, city, town, township, local public authority, intrastate district, council of governments, regional or interstate government entity, or agency or instrumentality of a local government; an Indian tribe or authorized tribal organization; a rural community, unincorporated town or village, or other public entity (NRP).

Major Disaster—as defined by the Stafford Act, any natural catastrophe or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this act to supplement the efforts and available resources of states, local governments, and disaster relief organizations in alleviating the damage, loss, or suffering caused thereby (NRP).

Mass Casualty Incident—an incident which generates more patients than available resources can manage using routine procedures and that will require assistance from outside agencies.

Mitigation—activities designed to reduce or eliminate risks to persons or property or to lessen the actual or potential effects or consequences of an incident. Mitigation measures may be implemented prior to, during, or after an incident (NRP).

Mutual Aid Agreement—written agreement between agencies, organizations, and/or jurisdictions that they will assist one another on request by furnishing personnel, equipment, and/or expertise in a specified manner (NRP).

National Contingency Plan (NCP)—officially titled the National Oil and Hazardous Substances Pollution Contingency Plan, this is the Federal government's blueprint for responding to both oil spills and hazardous substance releases. This plan develops a national response capability and promotes overall coordination among the hierarchy of responders and contingency plans (EPA).

National Response Plan (NRP)—a plan that provides the structure and mechanisms for national-level policy and operational coordination of Federal structures, capabilities, and resources into a unified, all-discipline, and all-hazards approach to domestic incident management (NRP).

Off-post—the area outside the boundaries of a military installation or facility (DA PAM).

Off-site—the area surrounding the on-site area (DA PAM).

On-post—a military installation or facility (DA PAM).

On-site—an area around the scene of a chemical event under the operational control of the on-site Commander, technical escort officer, or the IRF or SRF Commander. Includes any area established as a National Defense Area (DA PAM).

Preparedness—the range of deliberate, critical tasks and activities necessary to build, sustain, and improve the operational capability to prevent, protect against, respond to, and recover from domestic incidents (NRP).

Prevention—actions taken to avoid an incident or to intervene to stop an incident from occurring. Prevention involves actions taken to protect lives and property (NRP).

Protective Action Decision (PAD)—those decisions by State and local officials on what protective action instructions to recommend to the public, based upon hazard information, specific emergency planning zones, recommendations from the Installation Commander, and other information.

Protective Action Recommendation (PAR)—those initial and subsequent recommendations by the Installation Commander to off-post community officials in response to a chemical accident/incident (CAI). These recommendations may include evacuation, shelter-in-place, and exit shelter-in-place.

Protective Action Zone (PAZ)—a second emergency planning zone beyond the immediate response zone (IRZ). Generally it extends to about 18-35 miles from the installation's chemical storage area.

Release—any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant. For purposes of the NCP, release also means threat of release. There are exclusions to this definition (see NCP).

Recovery—the development, coordination, and execution of service- and site-restoration plans for impacted communities and the reconstitution of government operations and services through individual, private sector, nongovernmental, and public assistance programs (NRP).

Re-entry—the entry of persons into an affected area following a hazardous materials incident. Re-entry can be restricted (entry of monitoring crews) or unrestricted (unlimited public access) (EPA).

Relocation Points—areas to which a population or community can be temporarily or permanently removed in response to an emergency or disaster. Relocation is distinguished from evacuation in that during an emergency, the potential for a release exists; in contrast, during the relocation phase, there is no passing plume.

Response—activities that address the short-term, direct effects of an incident. Response includes immediate actions to save lives, protect property, and meet basic human needs. Response also includes execution of EOPs and of incident mitigation activities designed to limit the loss of life, personal injury, property damage, and other unfavorable outcomes (NRP).

Restoration—includes those efforts and resources needed to return a contaminated area to a condition safe for unprotected public access and use.

Service Response Force (SRF)—an HQDA level emergency response organization, commanded by a general officer, capable of performing and sustaining the CAIRA mission. The SRF is comprised of the IRF and follow-on forces consisting of a staff and specialized teams from various agencies and organizations involved in the response to and recovery from a CAI. (DA PAM)

Shelter-in-Place (SIP)—a protective action that involves taking cover in a building and taking steps to limit natural ventilation in order to reduce exposure to a hazard. Different categories include normal, expedient, enhanced, or pressurized shelters.

Special Populations—those individuals or groups that may be institutionalized or have needs that require special consideration in emergencies.

Stafford Act—defines qualifications that must be met for Federal declaration of a "disaster," and provision of Federal disaster relief. Formerly a part of PL 100-707, now 42 USC 121.

State—any state of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and any possession of the United States (NRP).

Tribe—any Indian tribe, band, nation, or other organized group or community, that is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians (NRP).

Volunteer—any individual accepted to perform services by an agency that has authority to accept volunteer services when the individual performs services without promise, expectation, or receipt of compensation for services performed (NRP).