

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188		
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.					
1. REPORT DATE (DD-MM-YYYY) 15 07 2007		2. REPORT TYPE Master's Thesis		3. DATES COVERED (From - To) 21-08-2006 to 5-04-2007	
4. TITLE AND SUBTITLE <u>Response to a Chemical Incident or Accident - Who is In Charge?</u>			5a. CONTRACT NUMBER		
			5b. GRANT NUMBER		
			5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S) Darryl J. Briggs, LTC, U.S. Army			5d. PROJECT NUMBER		
			5e. TASK NUMBER		
			5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Joint Forces Staff College Joint Advanced Warfighting School 7800 Hampton Blvd. Norfolk, VA 23511-1702			8. PERFORMING ORGANIZATION REPORT NUMBER JFSC 25789		
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSOR/MONITOR'S ACRONYM(S)		
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release, distribution is unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT This paper explores and recommends a new strategy in the response to a chemical accident. The thesis of this paper is: Combatant Commanders and the Services must have specific guidance and appropriate authorities to be able to effectively manage a Chemical Accident and Incident Response and Assistance (CAIRA) at a chemical stockpile site. To support the assertion, this paper will explore three separate organizations: Department of Army, Chemical Stockpile Emergency Preparedness Program, and the Department of Homeland Security. In each one of these organizations, the background, authority, current policy and procedures, and other topics are discussed and analyzed. Following the research and analysis, this paper provides some recommendations, a "way," to possibly improve the preparedness and response to an event at a chemical stockpile site.					
15. SUBJECT TERMS Chemical Stockpile Site, Chemical Surety, CSEPP					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Unclassified Unlimited	18. NUMBER OF PAGES 64	19a. NAME OF RESPONSIBLE PERSON SPC Rasmussen
a. REPORT Unclassified	b. ABSTRACT Unclassified	c. THIS PAGE Unclassified			19b. TELEPHONE NUMBER (include area code) 757-463-6301

**JOINT FORCES STAFF COLLEGE
JOINT ADVANCED WARFIGHTING SCHOOL**

Response to a Chemical Incident or Accident - Who is In Charge?

By

**Darryl J. Briggs
Lieutenant Colonel, U.S. Army**

A paper submitted to the Faculty of the Joint Advanced Warfighting School in partial satisfaction of the requirements of a Master of Science Degree in Joint Campaign Planning and Strategy

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Joint Forces Staff College or the Department of Defense.

Signature: _____

7 April 2007

Thesis Advisor: CAPT Dave Jerabek

ABSTRACT

This paper explores and recommends a new strategy in the response to a chemical accident. The thesis of this paper is: Combatant Commanders and the Services must have specific guidance and appropriate authorities to be able to effectively manage a Chemical Accident and Incident Response and Assistance (CAIRA) at a chemical stockpile site. To support the assertion, this paper will explore three separate organizations: Department of Army, Chemical Stockpile Emergency Preparedness Program, and the Department of Homeland Security. In each one of these organizations, the background, authority, current policy and procedures, and other topics are discussed and analyzed. Following the research and analysis, this paper provides some recommendations, a “way,” to possibly improve the preparedness and response to an event at a chemical stockpile site.

Contents

<u>Introduction</u>	
The Preamble	5
Background on the Chemical Weapons Convention (CWC)	6
Thesis and Methodology.....	6
 <u>Department of Defense and the Army</u>	
History and Background	10
Supporting Documents - Operational / Tactical	11
Joint Publication 3-26 (Homeland Security).....	12
Joint Publication 3-28 (Civil Support).....	18
Joint Publication 3-41 (Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives Consequence Management)	22
Current Events and Documents	22
 <u>Chemical Stockpile Emergency Preparedness Program (CSEPP)</u>	
History and Background	25
Supporting Documents - Operational / Tactical	26
Army Regulation (AR) 50-6 Chemical Surety	27
Department of the Army Pamphlet 50-6 Chemical Accident or Incident Response and Assistance (CAIRA) Operations	29
Current Risk	31
Old versus New	32
CIMX 06	37
 <u>Department of Homeland Security</u>	
History and Background	39
Supporting Documents - Strategic / Operational	40
Homeland Security Presidential Directive-5 (HSPD-5)	41
National Incident Management System (NIMS) / Incident Command System (ICS)	42
National Response Plan (NRP).....	43
Specific Points with Reference to the NRP	45
National Contingency Plan (NCP).....	50
Current Scenarios.....	52
 <u>Analysis and Recommendation</u>	
Cooperative and Collaborative	54
Authority and Capability.....	55
Mitigating Risk	58
A "Way" to Improve the System	59
The Current Environment	59

List of Figures

Figure 1 - Relationship of Emergency Preparedness to Homeland Security and Mission Areas	11
Figure 2 - Department of Defense's Operational Descriptions of Homeland Security and Mission Areas.....	15
Figure 3 - Request for Assistance.....	17
Figure 4 - Categories of Chemical Events	28
Figure 5 - Programmatic Risk Summary and Graphic	32
Figure 6 - Chemical Stockpile Sites.....	33
Figure 7 - NRP - Plan Structure	46

Introduction

Preparing for the future will require us to think differently and develop the kinds of forces and capabilities that can adapt quickly to new challenges and to unexpected circumstances. An ability to adapt will be critical in a world where surprise and uncertainty are the defining characteristics of our new security environment.

Secretary of Defense, Donald H. Rumsfeld
Remarks to the National Defense University
January 31, 2002

The Preamble

A basic American instinct is to take care of and defend our great nation.

Moreover, the forefathers were wise enough to put it in the U.S. Constitution's Preamble.

"We the People of the United States, in Order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defense, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America."¹ The Constitution and other legislative documents provide the fundamental justification for Homeland Defense and Security through the guarantee of domestic tranquility and provision for the common defense of the nation.² Such actions require the government to be prepared to respond to a chemical weapons incident.

¹ U.S. Constitution, Preamble.

² U.S. Joint Chiefs of Staff, *Joint Publication 3-41, Chemical, Biological, Radiological, Nuclear, and High-Explosives Consequence Management (Final Coordination)*, 2006, A1.

Background on the Chemical Weapons Convention (CWC)

Discussions or negotiations concerning a chemical weapons ban started in the 1960s in Geneva but went nowhere. Negotiations began again in 1980 and lasted for almost 12 years with no resolution or commitments. The contributing factors to the establishment of the chemical weapons ban treaty was Iraq's use of chemical agents against both Iran and its own Kurdish citizens³ and the religious cult Aum Shinrikyo's release of a chemical agent, Sarin, into the Tokyo subway in 1995.⁴

The Chemical Weapons Convention (CWC) became official on 29 April 1997, with the ratification of 87 countries. It has grown faster than any other global disarmament regime in history, from the original 87 States Parties to the current 181. The CWC commits States Parties to destroy all stockpiles of chemical weapons by a designated date.

Never before have the countries of the world been so close to the destruction of an entire category of weapons of mass destruction. Only through the full commitment of all States Parties will the task and goal of a chemical weapons-free world be realized.⁵

Thesis and Methodology

Seven chemical stockpile sites exist in the continental U.S. Since 1988, the Federal Emergency Management Agency (FEMA) and Department of the Army (DA) have assisted both the stockpile sites and the adjacent communities in the enhancement of

³ Director of Central Intelligence, "CW Use in Iran-Iraq War," accessed at http://www.fas.org/irp/gulf/cia/960702/72566_01.htm, 15 Jan 2007.

⁴ Ernest T. Takafuji and Allart B. Kok, "The Chemical Warfare Threat and the Military Healthcare Provider," accessed at https://ccc.apgea.army.mil/sarea/products/textbook/Web_Version/chapters/chapter_4.htm#introduction, 15 Jan 2007.

⁵ Organization for the Prohibition of Chemical Weapons, "A history of chemical weapons," accessed at www.opcw.org/en/cw_use_history.html, 15 Jan 2007.

their abilities to respond to a potential chemical agent emergency. This assistance began in August 1988 through a memorandum of understanding that established the framework by which affected state and local governments could and would provide for the public's health and safety. In October 1997, FEMA signed a revised memorandum of understanding assuming responsibility and accountability for all aspects of off-post emergency preparedness. FEMA's effort to reduce the loss of life and property and to protect U.S. residents from all hazards is consistent with the Department of Homeland Security's (DHS) mission.⁶

The overall risk to the community decreases with the destruction of chemical agents and munitions. This reduction of risk provides the opportunity and a need to re-evaluate the Chemical Stockpile Emergency Preparedness Program (CSEPP) at all levels based on the remaining risk to the community. In a recent letter to a Chemical Stockpile Emergency Preparedness Program (CSEPP) community, Dale A. Ormond, Deputy Assistant Secretary of the Army for Elimination of Chemical Weapons, wrote, "...we must all recognize that as each day of demilitarization operations ends, the risk to the surrounding communities diminishes" and "...we must evaluate our opportunities to adjust portions of the program which no longer provide CSEPP value to the public or to the first responders."⁷

The thesis of this paper is: Combatant Commanders and Services must have specific guidance and appropriate authorities to be able to effectively manage a Chemical Accident and Incident Response and Assistance (CAIRA) at a chemical stockpile site.

⁶ FEMA/CSEPP, *Fiscal Year 2005 Report to Congress* (FEMA/CSEPP: March, 2006), 3.

⁷ Ibid., 2.

This paper will explore three separate organizations: Department of Army (DA), Chemical Stockpile Emergency Preparedness Program, and the Department of Homeland Security (DHS). In each one of these organizations, the background, authority, current policy and procedures, and other topics that would affect the topic were researched and analyzed. For example, risk is only discussed in one of the organizations, yet has a huge impact on this study's recommendations. The Department of Homeland Security (DHS) is a new organization, not yet 10 years old, but it has developed, implemented, and executed many new policies and directives. The Army followed suit, as is apparent in our national strategies with respect to Weapons of Mass Destruction (WMD), consequence management, and defense support to civil authority.

Much of the defense support to civil authority has been worked hard, especially since Hurricane Katrina. The Department of Defense (DoD) has done a phenomenal job in not only developing and establishing authorities, policies, and organizations, but by practicing and incorporating them through training and working collaboratively with many of the emergency management offices at all levels, federal, state and local. The Department of Defense's policy, procedures, and strategy is nested well with the Department of Homeland Security (DHS) in reference to Defense Support of Civil Authority (DSCA). The Army now has the opportunity to update its regulations and resolve or clarify some possible questions reference response to an incident at a Chemical Stockpile Site.

After building the foundation and providing an understanding of the system and process of responding to a chemical incident at a Chemical Stockpile Site, this paper will answer the following questions:

- Who has the authority?
- Who may need the authority?
- Is there a “way” to possibly improve the system or process?
- What is the current environment of consequence management?
- What is the recommended path forward?

Admiral Timothy Keating, commander of North American Aerospace Defense Command (NORAD) and U.S. Northern Command (USNORTHCOM), made two key statements during exercise Vigilant Shield 2007. He said, “Getting the right capability to the right spot at the right time is what is important; and instead of the military arriving at a scene and exercising command and control, essentially taking over operations, communication and collaboration is the more appropriate method of approaching Defense Support of Civil Authority (DSCA) operations.”⁸

⁸ MC1(SW/AW) Joaquin Juatai, “Interagency cooperation emphasized, exercised during Vigilant Shield,” Accessed at http://www.northcom.mil/newsroom/news_release/2006/121206.html, 15 Jan 2007.

Department of Defense and the Army

The gravest danger to freedom lies at the crossroads of radicalism and technology. When the spread of chemical and biological and nuclear weapons, along with ballistic missile technology...occurs, even weak states and small groups could attain a catastrophic power to strike great nations.

President George W. Bush
West Point, New York
June 1, 2002

History and Background

The Department of Defense, with its Total Force of active duty, reserves, civilians and contractors, has the largest and most diversified personnel assets in the Federal Government. As was demonstrated after the 9/11 terrorist attacks and Hurricane Katrina, the Army can be used in a variety of response roles. As Steve Bowman of the Congressional Research Service states, “The Department of Defense has the reputation as the greatest federal repository of resources for responding to a chemical, biological, radiological, or nuclear (CBRN) incident. In the future, it is believed and anticipated that civilian authorities will eventually develop better capabilities to deal with CBRN incidents; however, until that is clearly evident, there will be a continued reliance on Department of Defense assets.”⁹ When participating in a homeland security operation, the Department of Defense will normally operate in support of a civilian lead federal agency as required and directed. Due to the high priority and focus on homeland security, the Department of Defense activated a new combatant command, Northern Command (NORTHCOM), on 1 October, 2002. Even though the Department of Defense leadership is ready and willing to play a supporting role in these efforts, it must maintain

⁹ Steve Bowman, *Homeland Security: The Department of Defense’s Role* (Congressional Research Service: The Library of Congress, 2003), Summary.

overseas military operations as the Department's primary focus, and avoid a drain of resources to the homeland security mission.¹⁰

Following the passage of Homeland Security Presidential Directive (HSPD) – 5, Management of Domestic Incidents, the Department of Defense found itself trying to understand the National Incident Management System (NIMS). Just as with any new strategy and/or plan, changes may come in a variety of areas, such as culture, organization, plans, equipment, and training. The United States is evolving to ensure that it can meet all the requirements of the National Security Strategy (NSS), National Strategy for Homeland Security (NSHS), National Response Plan (NRP), and National Contingency Plan (NCP) to guarantee domestic tranquility and provide for the common defense of the nation.

Supporting Documents

Within the Department of Defense, three joint publications primarily relate to Chemical Accident or Incident Response and Assistance (CAIRA): Joint Publication (JP) 3-26 *Homeland Security*, JP 3-28 *Civil Support*, and JP 3-41 *Chemical, Biological, Radiological, Nuclear and High-Yield Explosives (CBRNE) Consequence Management*. The focus of this study will be on JP 3-26, but information from JP 3-28 and JP 3-41 is included with the understanding that both of these joint publications are under review and rewrite. As the titles indicate, the publications go from a broad overview of homeland security and civil support to a more focused guidance reference CBRNE response. As would be expected in hierarchical documents, the broader documents set the foundation

¹⁰Ibid., Summary.

for the more specific ones. The key points to be examined will focus on purpose, command and control or authority, and key aspects of operations.

Joint Publication (JP) 3-26 Homeland Security

Homeland Security consist of two catagories – Homeland Defense and Defense Support to Civil Authorities which are tied together through emergency preparedness (see Figure 1). The Department of Defense will provide support to civil authorities as directed by, and consistent with laws, Presidential Directives, Executive Orders, and Department of Defense policies and directives. The employment of military forces to support Civil Support typically falls under the broad mission of Military Assistance to Civil Authorities (MACA).¹¹ MACA missions consist of three mission subsets: Military Support to Civil Authorities (MSCA); Military Support to Civilian Law Enforcement Agencies (MSCLEA); and Military Assistance for Civil Disturbances (MACDIS). As MSCA is the only area involved with a chemical incident, the others will not be discussed further. MSCA, now called Defense Support to Civil Authorities (DSCA), is the support provided by Federal military forces, Department of Defense civilians, contractor personnel, and Department of Defense agencies and components in response to requests for assistance in support of domestic incidents such as terrorist threats or attacks, major disasters, and other emergencies.

¹¹ Note: In new joint publications this term (MACA) is called Defencse Support to Civil Authorities (DSCA).



Figure 1 – Relationship of Emergency Preparedness to Homeland Security and Mission Areas¹²

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288) (Title 42 United States Code Section 5121, et seq.) legally authorizes the federal government to help state and local governments alleviate the suffering and damage caused by disasters. It establishes the programs and processes for the federal government to provide assistance. The Department of Defense would be directed to provide assistance in one of three different scenarios: a Presidential declaration of a major disaster, a Presidential order to perform emergency work for the preservation of life and property, or a Presidential declaration of emergency. Response authority for an accident at a Chemical Stockpile Site will be discussed in the next section.

In certain circumstances, Department of Defense officials, military commanders or responsible officials may be faced with situations or events that will require them to

¹² U.S. Joint Chiefs of Staff, *Joint Publication 3-26, Homeland Security*, 2005, I-4.

provide immediate response to civil authorities. Responses to requests from civil authorities prior to receiving authority from the President or chain of command are made when immediate support is critical to save lives, prevent human suffering, or mitigate or prevent great property damage. Such requests are situation specific, time-sensitive, and may or may not be associated with a declared disaster or emergency. When such conditions exist, and time does not permit prior approval from higher headquarters, commanders or officials acting under immediate response authority may take necessary action to respond, but must advise the National Military Command Center through command channels and seek approval or additional authorizations.¹³ Only the Secretary of Defense may authorize the deployment of forces for MACA missions. Except in cases of immediate response, Department of Defense may not provide MACA without an official request from another federal agency (Economy Act, Title 31 USC 1535¹⁴) or direction from the President.

The Secretary of Defense (SecDef) has overall authority for the Department of Defense and is the President's principal advisor on military matters concerning Homeland Security (HS), which include Homeland Defense (HD) and Civil Support (CS) as shown in Figure 2. The SecDef retains approval authority for the use of forces, personnel, units, and equipment and has the primary responsibility of providing the overall policy and oversight in the event of a domestic incident. The SecDef also has the authority to change policy.

¹³ Ibid., IV-3.

¹⁴ Economy Act, Statutes at Large 31, secs 1535 (2001), accessed at <http://casu.gov/authority/usc1535.html>, 15 Jan 2007.

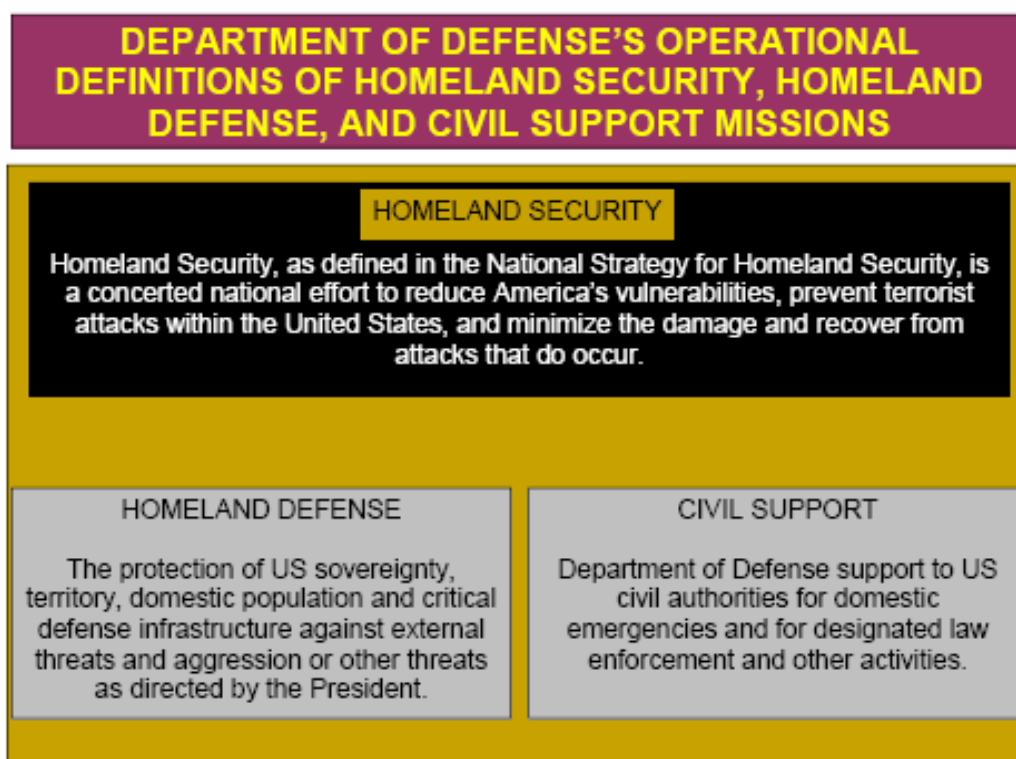


Figure 2 – Department of Defense's Operational Descriptions of Homeland Security and Mission ¹⁵

The Chairman of the Joint Chiefs of Staff (CJCS) has numerous responsibilities relating to Homeland Security. Two of these responsibilities include advising the President and SecDef on operational policies, responsibilities, and programs and translating the SecDef's guidance into operation orders to provide assistance to the Lead Federal Agency (LFA).¹⁶ The Chairman of the Joint Chiefs of Staff (CJCS) ensures that Homeland Security plans and operations are compatible with other military plans. In the Civil Support mission area, the CJCS serves as the principal military advisor to SecDef and the President in preparing for and responding to Chemical, Biological, Radiological, Nuclear and High-Yield Explosives (CBRNE) incidents, ensures that military planning is

¹⁵ U.S. Joint Chiefs of Staff, *Joint Publication 3-26, Homeland Security*, 2005, I-3.

¹⁶ Note reference term Lead Federal Agency and connotation that it implies. I believe that the term may be changed in the future to something similar to "coordinating agency."

accomplished to support the Lead Federal Agency, and provides strategic guidance to the combatant commanders for the conduct of Civil Support operations.

The Office of Assistant Secretary of Defense (ASD) for Homeland Defense (HD) and America's Security Affairs (ASA) is within the office of the Under Secretary of Defense for Policy [USD(P)] and is responsible for the overall supervision of all Department of Defense Homeland Defense related activities. Within Civil Support, ASD(HD&ASA) has been delegated the duties and authorities associated with principal staff assistant for MSCA. Thus, he ensures internal coordination of Department of Defense policy direction and conducts coordination with Department of Homeland Security. The principal duty of ASD(HD&ASA) is to provide overall supervision of the Homeland Defense and Civil Support mission areas within Department of Defense and in that role serve as the principal staff assistant and advisor to the USD(P) and Secretary and Deputy Secretary of Defense. Figure 3 shows the request for assistance chain when DoD is not the lead agency.

The Commander, US Northern Command has specific responsibilities for Homeland Defense and has been designated the Department of Defense commander for overall support to civil authorities within the NORTHCOM area of responsibility (AOR). The Commander, US Northern Command takes all operational orders from and is responsible to the President through the SecDef. In providing Civil Support, the command may and often will operate through subordinate joint task forces (JTFs).

One of the unique JTFs under NORTHCOM is the Joint Task Force – Civil Support (JTF-CS). JTF-CS plans and integrates Department of Defense support for domestic CBRNE consequence management operations. JTF-CS normally performs this

function for the Lead Agency; but what if the Department of Defense is the Lead Agency? Once approved by the secretary of defense and directed by the commander of USNORTHCOM, JTF-CS deploys to the incident site. Its mission involves executing timely and effective command and control of designated Department of Defense forces that focus primarily on what is required at a Chemical Stockpile Site accident as well as providing support to civil authorities to save lives, prevent injury, and provide temporary critical life support. JTF-CS will respond to the effects of a CBRNE incident only after civilian resources have been exhausted. JTF-CS tasks include some of the same tasks required for response at a Chemical Stockpile Site: incident site support, casualty medical assistance and treatment, displaced populace support, mortuary affairs support, logistics support, and air operations.

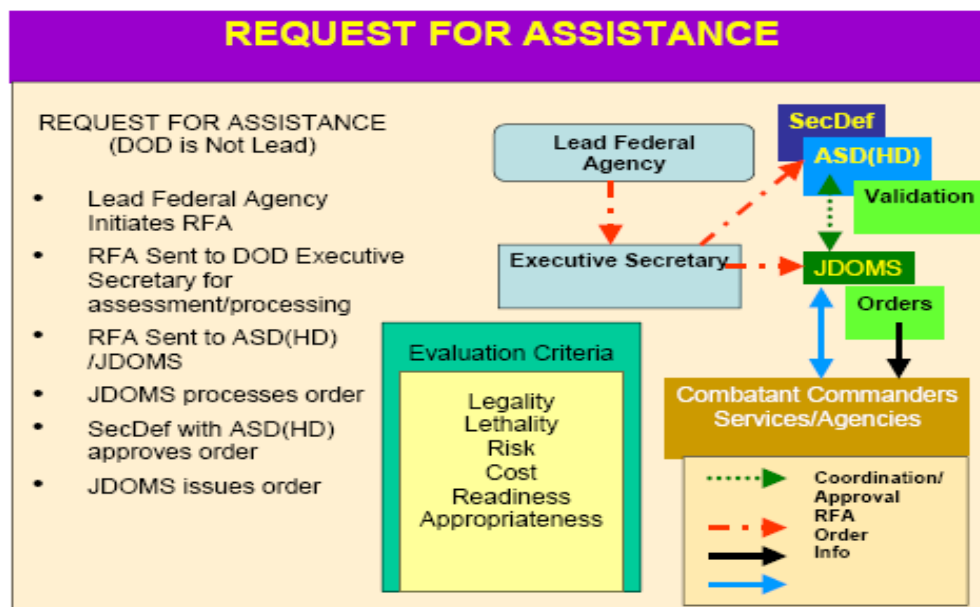


Figure 3 – Request for Assistance¹⁷

¹⁷ U.S. Joint Chiefs of Staff, *Joint Publication 3-26, Homeland Security*, IV-11.

Each state has a Weapons of Mass Destruction – Civil Support Team (WMD-CST). These teams, operating under title 32 United States Code (USC), are most likely to be the first military responder to a CBRNE incident. The exception to this rule is at a Department of Defense Chemical Stockpile Site, which has a trained response team to respond in a matter of minutes to an event. The WMD-CST’s mission is to support civil authorities at a domestic CBRNE incident site by identifying CBRNE agents/substances, assessing current and projected consequences, advising on response measures, and assisting with appropriate requests for additional support. A CST is composed of 22 full-time members under title 32 USC; and its make up is 80% Army National Guard and 20% Air National Guard. These teams are highly trained, with world-class WMD detection capabilities coupled with outstanding communications capabilities: organic satellite, secure, and cellular. Each state has one of these rapidly deployable teams per state, with two for California and Florida due to their population and size.¹⁸

Joint Publication (JP) 3-28 Civil Support

When Civil Support is requested through a formal request process, approved by the President or SecDef, and executed under the guidance of the NRP, the support is characterized as Defense Support of Civil Authorities (DSCA). DSCA is defined as “Department of Defense support, including federal military forces, the Department’s career civilian and contractor personnel, and Department of Defense agency and component assets, for domestic emergencies and for designated support to law enforcement and other activities, within the context of the National Response Plan

¹⁸ J. Emery Midyette Jr, “Resource and Structure of States’ National Guard,” *Joint Center for Operational Analysis Volume VIII*, Issue 2 (June 2006): 41.

(NRP). The Department of Defense provides DSCA when directed to do so by the President or SecDef.”¹⁹ As would be expected, a military response may overlap into one or more categories, or emergency support functions, of DSCA. For example, the release of a chemical agent could cause mass evacuation and relocation of civilians as well as extensive casualties. All three, release of a chemical agent, mass evacuation, and extensive casualties, fall into specific Emergency Support Functions (ESF). The National Response Plan defines and explains ESFs, which will be discussed later under the Department of Homeland Security.

The severity of a large WMD release, whether deliberate or unintentional, would probably cause huge implications and complex management challenges. These releases may occur with little to no warning, resulting in mass casualties and/or a mass evacuation. The local and state capabilities and resources may be insufficient and be quickly overwhelmed. As a result, “specific attention has been focused on task-organizing within Department of Defense to plan for and integrate its support to a federal agency with lead responsibility to manage the consequences of a domestic CBRNE event.”²⁰ The key players in a response consist of the Standing Joint Force Headquarters-State (SJFHQ-S), JTF-CS, the Defense Coordinating Officer (DCO), the Principal Federal Official (PFO), and the Environmental Protection Agency (EPA).

The Standing Joint Force Headquarters-State (SJFHQ-S) were established to parallel the structure of the National Guard Bureau, the Joint Staff, and the Combatant Commands. The task for each SJFHQ-S was to configure itself based on the states’ unique needs, while centralizing each governor’s ability to leverage both homeland

¹⁹ U.S. Joint Chiefs of Staff, *Joint Publication 3-28, Civil Support*, 2006, II-2.

²⁰ *Ibid.*, III-10.

security and state mission capabilities in the event of a local emergency. An additional task given was to provide a standing Joint Force Command and Control capability that would allow a combatant commander to accurately monitor an incident, provide supporting forces, or command federal forces, including federalized NG forces, in support of the civilian incident commander. Note that when the JTF-CS deploys as directed by the SECDEF, direction comes thorough the Commander, NORTHCOM. The Environmental Protection Agency (EPA) serves as a support agency to DHS/FEMA for Consequence Management (CM) and provides expertise with technical personnel and supporting equipment to the Lead Federal Agency (LFA) during all aspects of WMD incidents.²¹

The Defense Coordinating Officer (DCO) serves as the Department of Defense single point of contact to the Federal Coordinating Officer (FCO) for providing Department of Defense resources during disaster assistance. The DCO may collocate with the FCO to assist in coordinating all FEMA mission assignments for military support. A Defense Coordinating Element, the size and composition of which is determined by the particular event, is established to provide the support staff for the DCO.

The Federal Coordinating Officer (FCO) is appointed to manage Federal resource support activities related to Stafford Act disasters and emergencies. The FCO's responsibility is to coordinate for the timely delivery of the federal disaster assistance

²¹ U.S. Joint Chiefs of Staff, *Joint Publication 3-26, Homeland Security*, 2005, II-20.

resources and programs.²² The Secretary of Homeland Security designates a Principal Federal Official (PFO) to act as his/her representative locally to oversee, coordinate, and execute his/her responsibilities under Homeland Security Presidential Directive - 5 for Incidents of National Significance.²³

The Joint Field Office (JFO) is a multi-agency coordination center established at or near the incident site to provide a central location for coordination of federal, state, local, tribal, nongovernmental, and private-sector organizations, with primary responsibility for threat response and incident support. The JFO is the primary hub of coordination to manage the CBRNE accident.

Since FEMA has responsibility for administering the provisions of the Stafford Act, it is normally the Primary Federal Agency for responses covered by the Act. This Act provides authority for disaster preparedness, Presidential grants for planning, Presidential declarations of major disaster or emergency, formation of immediate support teams, reimbursement to supporting agencies (including Department of Defense), and major disaster assistance programs to help state and local governments mitigate the suffering and damage caused by disasters, emergencies, and other incidents.

Most significant responses facing the Nation today, and in the future, will probably require a multi-agency, interdisciplinary approach that brings the Federal Government and other organizations together. Therefore, it is critical to establish workable and effective interagency relationships and partnerships in advance of an event.

²² U.S. Joint Chiefs of Staff, *Joint Publication 3-41, Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives Consequence Management (Final Coordination)*, 151.

²³ *Ibid.*, 156.

This simple fundamental is the essence of planning for and executing an effective response.

Joint Publication (JP) 3-41 Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives Consequence Management (Final Coordination, 23 March 2006)

The following highlights two significant points in this publication which is still under review: NORTHCOM's Plan and Tiered Response.

The Commander of NORTHCOM is responsible for the development and maintenance of a plan that coordinates and synchronizes its assistance and response to a CBRNE event. NORTHCOM and the Chemical Materials Agency (CMA) continually talk, discussing information pertaining to the response at one of the Chemical Stockpile Sites. Details reference the plan are not required for this thesis, however understanding that they are part of the response is important. Chemical Materials Agency is the higher headquarters for all of the Chemical Stockpile Sites.

A tiered response is based on the criteria set by the SecDef to implement a response by NORTHCOM. Tier One is for small scale, localized CBRNE incidents. In this event, the Defense Coordinating Officer (DCO) will exercise command over the small number of Department of Defense forces. The DCO is supported by a staff (Defense Coordinating Staff), and an emergency preparedness liaison officer (EPLO). He maintains various reach-back capabilities for technical advice and assistance. NORTHCOM's standing CBRNE CM joint task force, the Joint Task Force-Civil Support (JTF-CS), may be directed to provide a joint planning augmentation cell (JPAC) or other assistance to the DCO depending on the situation. In the event of a CBRNE

incident, specialized personnel, services, supplies, and equipment will be required from the Department of Defense to support the response.

The next “step up” is Tier Two, the response posture for CBRNE incidents that requires implementation of CJCS CONPLAN 0500 and the need to establish a JTF. In addition to all individuals, teams/units, and supplies/equipment required in the Tier One response, an enabling and sustainment force will be required in this response. The JTF Commander (CDRJTF) will normally be delegated operational control (OPCON) of all Department of Defense forces in the order. The initiated response efforts will follow the procedures detailed in the NRP-Catastrophic Incident Annex. Discussion on this Annex will follow in the Department of Homeland Security Section.

The final level is Tier Three, which involves complex and multi-challenging CBRNE scenarios that may impact a wide geographic area, a large population, or threaten national security. Depending on the severity and magnitude of the event, multiple JTFs may be required. Since multiple JTF commanders (including Commander, JTF-CS) have command of Department of Defense forces conducting the consequence management response within their respective operational areas, the situation may require the designation of a Tier Three JTF to assume command of all JTFs responding to the situation in order to achieve unity of command.

Current Events and Documents

The Quadrennial Defense Review (QDR) Report dated February, 2006, focuses on four priorities, one of which is “defending the homeland.” Clearly stated in the QDR is that “under the new force construct, the U.S. military is sized and shaped for three

main types of missions: homeland defense, the war on terrorism/irregular warfare, and conventional campaigns. Perhaps the most innovative aspect of this new force-planning construct is that it puts both homeland defense and irregular warfare on an equal footing with conventional war fighting.”²⁴ With the expansion of the Army’s 20th Support Command’s CBRNE capabilities, it would or could play an essential part in a response at a Chemical Stockpile Site.²⁵

Just recently, the National Guard Bureau has formed a Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives Emergency Response Force Package (CERFP). This task force is trained and equipped to provide search and extraction, as well as medical and decontamination assistance, at a WMD incident, while operating within the National Incident Management System (NIMS). This is not a first response type of capability, but it still is a truly valuable and critical asset for follow-on operations.²⁶

²⁴ Michele Flournoy, “Did the Pentagon Get the Quadrennial Defense Review Right?” (*Washington Quarterly*), 29:2, 6.

²⁵ U.S. Department of Defense, *Quadrennial Defense Review Report (QDR)*, 6 Feb 2006, 52.

²⁶ National Guard Bureau, “The National Guard’s Role in Homeland Defense,” accessed at <http://www.ngb.army.mil/features/HomelandDefense/cerfp/index.html>, 15 Jan 2007.

Chemical Stockpile Emergency Preparedness Program (CSEPP)

There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things.

Niccolo Machiavelli, 1513

History and background

The Chemical Stockpile Emergency Preparedness Program (CSEPP) was developed in 1985 by Congress when it directed the Department of Defense to destroy its stockpile of obsolete chemical weapons and agents in a manner that provided maximum protection for the general public. In addition, the CSEPP enhances the capabilities of local communities to respond to a chemical emergency at any of the Department of Army's Chemical Stockpile Sites. There are 10 states, 41 counties, and 1 tribal nation that participate in the program.²⁷ In 1988, estimates from the Army put the cost at \$114 million for CSEPP and the completion date at 1994. Following their study in 1994, GAO wrote, "although the Army has worked for 5 years and spent \$200 million, communities near chemical weapon storage sites are not yet prepared to respond to a chemical emergency. The Army now estimates that CSEPP will cost \$696 million through its estimated completion date of 2003."²⁸

Administration of CSEPP is through the states, as are Department of Homeland Security (DHS) / Federal Emergency Management Agency's (FEMA) emergency preparedness programs. The key point here is that "DHS / FEMA determine off-post

²⁷ U.S. Army Chemical Materials Agency (CMA), (Chemical Stockpile Emergency Preparedness Program (CSEPP)), accessed at <http://www.cma.army.mil/csepp.aspx>, 13 Jan 07.

²⁸ GAO Report, *Chemical Weapon Stockpile: Army's Emergency Preparedness Program Has Been Slow to Achieve Results* (GAO Report, Feb 1994), 2.

requirements and through coordination with state and local governments develop a budget.”²⁹ The Department of Defense’s budget includes these budget requests. CSEPP was moved from FEMA to the DHS Office of Infrastructure Protection within the Preparedness Directorate in FY 2006. In Sept 2006, Congress passed the Port Security Act that places the CSEPP and Radiological Emergency Preparedness Program (REPP) back into the FEMA organization, effective April 1, 2007.³⁰ This reorganization may have played a role in the exclusion of a CSEPP scenario from the DHS national scenarios involving weapons of mass destruction as will be discussed later.

More recently, the Under Secretary of Defense, Kenneth Krieg, certified to Congress that the two chemical weapons disposal programs in Kentucky and Colorado should proceed, as they are “essential to national security.” The projected completion dates for destruction of chemical weapons in Kentucky and Colorado are 2023 and 2020, respectively.³¹ The significance of this statement is to show two points: these sites are essential to national security and each has a distant projected completion date.

Supporting Documents

Within the Army, there are two primary publications that relate to Chemical Accident or Incident Response and Assistance (CAIRA): Army Regulation (AR) 50-6 *Chemical Surety*, and Department of the Army (DA) Pamphlet (PAM) 50-6 *Chemical Accident or Incident Response and Assistance (CAIRA) Operations*.

²⁹ FEMA/CSEPP, *Fiscal Year 2005 Report to Congress*, 6.

³⁰ FEMA/CSEPP, *CSEPP UPDATE*, (FEMA/CSEPP: November 2006), 1.

³¹ Ronica Shannon, “Congress gets new depot timeline, cost”, accessed at http://www.richmondregister.com/siteSearch/apstorysection/local_story_011225550.html, 13 Jan 2007.

Army Regulation (AR) 50-6 Chemical Surety

AR 50-6 serves as the foundation for chemical event responses at a Department of Defense Chemical Surety Site. A chemical event is defined as “a chemical accident, incident and other circumstance where there is a confirmed or likely release to the environment, exposure of personnel, threat to the security of chemical agent materiel, or any incident of concern to the local commander.”³² The response to a chemical event will consist of the activation of all or select portions of the Initial Response Force (IRF) with possible Service Response Force (SRF) deployment depending on situation or category.

The Initial Response Force (IRF) is the first responder to a chemical accident at an installation. This installation-level emergency response team is usually composed of personnel assigned to the chemical site who will perform specific actions to prevent, minimize, or mitigate hazards to public health and safety or to the environment. They are under the command of the installation commander. The IRF may execute all phases of a CAIRA operation without SRF involvement, but this is very dependent on the commander’s estimate of the situation. One of the largest contributing factors for calling in the SRF would be if the plume, or computer drawn downwind hazard prediction, left the depot or federal property, and, if so, what effect it might have on the local community.

The Service Response Force (SRF) is an Army-level emergency response organization, commanded by a general officer recommended by the major command (MAJCOM), capable of performing and sustaining the CAIRA mission with

³² U.S. Department of the Army, *Army Regulation 50-6, Chemical Surety*, 26 Jun 2001, 47.

augmentation from the Chemical Materials Agency, and possibly the Army Materiel Command, with a staff and specialized teams. When deployed, the SRF falls under the operational control of HQDA Deputy Chief of Staff, G-3. Each SRF commander nominee needs to have a working knowledge of chemical agent materiel and training in CAIRA and ICS operations, including duties as an On-Scene Commander.

Categories of chemical events are depicted in Figure 4. They include: Category I: Non-surety emergency, informational; Category II: Limited area/post only emergency, site response; and Category III: Community emergency, external response.³³

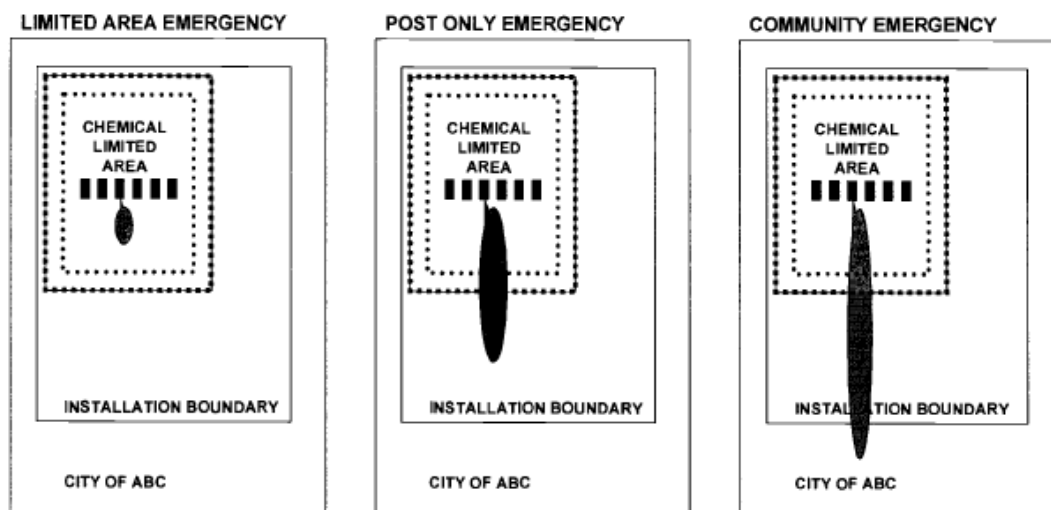


Figure 4 – Categories of Chemical Events

The reporting requirement for a chemical event is clear and concise. Some sites have existing Memorandums of Agreement with local authorities for reporting, approved through the Department of the Army, due to the response time required by the local community. However, the regulation states that chemical events will be reported directly to HQDA, Office of the Deputy Chief of Staff for Operations and Plans, Army

³³ U.S. Department of the Army, *Department of the Army Pamphlet 50-6, Chemical Accident or Incident Response and Assistance (CAIRA) Operations*, 26 Mar 2003, 20.

Operations Center (AOC) by telephone within 3 hours from the time the chemical event has been confirmed, and that notification will not be delayed due to lack of detailed information. In addition, installations are required to notify state and local officials for the affected areas as coordinated in local plans and agreements. Also, a report is due to the National Response Center as soon as the reportable quantity has exceeded the requirements as defined by 40 CFR 302 (National Contingency Plan).

As an event is called up through the Army chain, the local and state officials are calling up through their chain to individuals, organizations and possibly federal agencies. This could cause difficulties and misunderstandings, which will be discussed later.

Department of the Army Pamphlet 50-6 Chemical Accident or Incident Response and Assistance (CAIRA) Operations

CAIRA is the program that was developed to respond to a chemical accident at a chemical site. The Army and FEMA have been conducting exercises since 1991, and it has ensured that CAIRA operations are effective. Many civilians working at these sites have been there since the inception of CAIRA resulting in an institutional understanding of the system and process.

The Army's system for CAIRA is organized along the principles of centralized control and decentralized execution. Centrally controlling emergency assets enables the commander to effectively gather personnel and integrate resources for deployment to the chemical accident scene. Through decentralized execution and emergency response force organization, the commander enables specialized teams to start the response as he/she is simultaneously reporting, planning, and executing at a different level.

As with most military operations, the level of response will be proportional to the severity of the event. Quarterly CAIRA exercises have ensured that commanders can assess the nature of the chemical event to determine the size and structure of the responding emergency forces. Chemical accident scenarios may vary in size and complexity. A small leak in an igloo may call for a minimum emergency response, while a catastrophic chemical accident may require installation, local community, State, and Federal emergency resources.

The IRF or SRF commander will serve as the senior military official present at the chemical accident scene, representing both the Department of the Army and the Department of Defense. The IRF or SRF commander also provides operational command and control of all military forces and operations at the chemical accident location. In this capacity, the IRF or SRF commander serves as the single point of contact for the Department of Defense support during a accident or incident. As the IRF or SRF commander, he may request any Army resources necessary to mitigate and/or resolve the chemical accident. In addition, when the situation requires specialized equipment or personnel that is not available from Army sources, the IRF or SRF commander has the authority and priority to request support through appropriate channels from other Services or Department of Defense agencies. As the Department of Defense representative at the location, the IRF or SRF commander has direct access to the highest levels of the Department of the Army and the Department of Defense.

An effective and timely response requires eliminating as much of the risk and uncertainty in operations as possible. Thus, a well-coordinated and comprehensive plan that is tailored to the specific needs of the installation and local community is key.

Effective and successful planning requires community involvement throughout the process. This interaction ensures efficiency and effectiveness in the response by ensuring that everyone and everything is coordinated and synchronized.

Current Risk

In a recent article in the Defense News, it stated that the Department of Defense extended its timeline to destroy our aging chemical weapons arsenal until 2023. The new schedule means complete destruction will not occur until 11 years after the 2012 deadline set by the international Chemical Weapons Convention. Pentagon spokesman Chris Isleib said “the delay is the result of several factors, including technological challenges in developing and building disposal plants, regulatory delays, and safety and security issues...”.³⁴ Due to this delay, which causes the risk to be around longer, one of the most essential analyses that needs to be understood is what is the specific risk for each site. Determination of the risk will logically assist in determining the most probable level of response.

Each chemical storage site is unique in the type of munitions and type of agent that is stored at its location. Each munitions and agent has a different type of risk associated with it. Rockets, just one type of munition, are the most significant contributor to public stockpile storage risk. Sites that have destroyed their rocket stockpiles have had a significant reduction in risk. Nerve agents (VX and GB) are a higher risk than Mustard (HD) agent, due to their chemical properties. Moreover, out of the nerve agents, (VX) is a higher risk than Sarin (GB) due to its chemical properties.

³⁴ Peter Eisler, “Pentagon Delays Chemical Weapons Disposal,” accessed at <http://www.defensenews.com/story.php?F=2373202&C=america>, 13 Feb 2007.

The following list in Figure 5 gives an overall, programmatic risk assessment and current risk (per year) for the Chemical munitions stored in igloos at various sites. The study conducted considered the effects of both stockpile destruction at chemical agent disposal facilities and mitigation efforts that have been implemented over the years.

Site	Current Risk	Percent Contribution to Programmatic Risk
Pine Bluff, Arkansas	3.9×10^{-2}	77%
Anniston, Alabama	6.6×10^{-3}	13%
Blue Grass, Kentucky	4.0×10^{-3}	8%
Umatilla, Oregon	9.2×10^{-4}	2%
Newport, Indiana	3.8×10^{-5}	<1%
Pueblo, Colorado	3.3×10^{-7}	<<1%
Tooele, Utah	$< 10^{-8}$	<<1%
Aberdeen, Maryland	0	0
Johnston Island (Hawaii) ³⁵	0	0

Figure 5 - Programmatic Risk Summary and Graphic³⁶

The top four contributors to total risk, but with a different sequence that takes a holistic view of the criteria and environment, are Pine Bluff, Blue Grass, Anniston, and Umatilla. Analysis of the risk is and should continue to be a continuous process. Figure 6 gives the actual location of each of the chemical storage sites with types of chemical munitions.

³⁵ Johnston Island was the first US location to complete destruction in 2000. This location set the standard for the future destruction at other sites. It will not be mentioned further since it was outside the continental United States.

³⁶ Information from CMA reference programmatic risk for chemical stockpile sites.

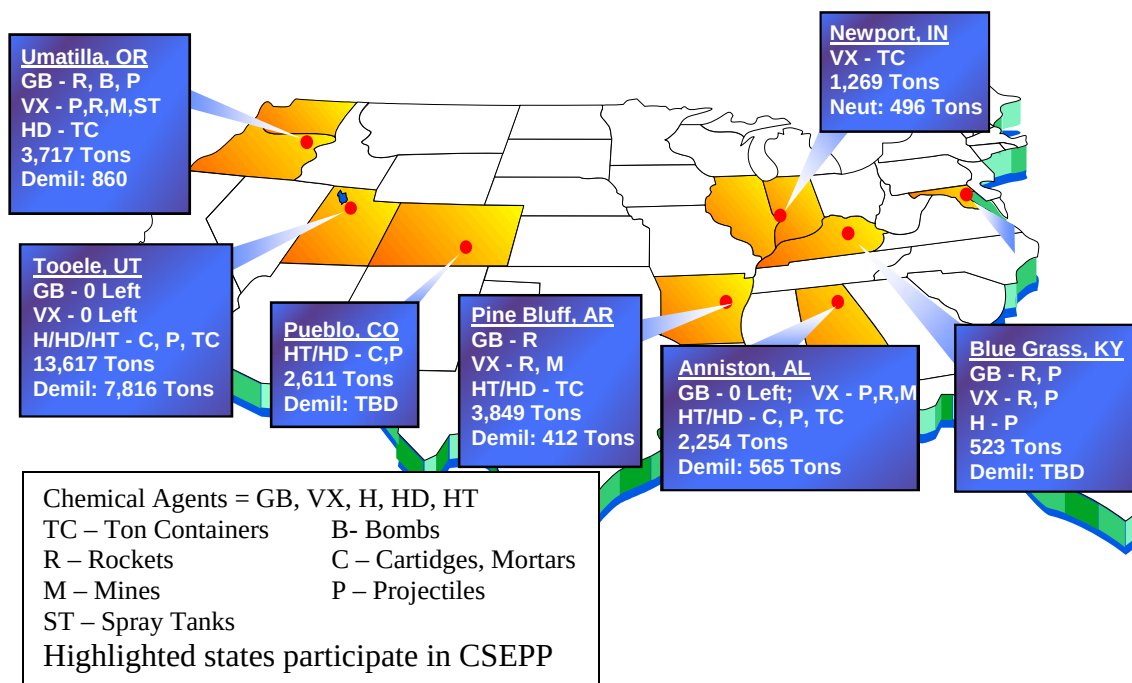


Figure 6 – Chemical Stockpile Sites

The following will list (from bottom to top) each site and provide additional detail on the analysis of the risk based on the type of munition(s), type of agent(s) stored at each site, location and terrain of storage site, chemical activity verses depot, and timelines for destruction.

Aberdeen The Aberdeen Chemical Agent Disposal Facility (ABCDF) completed processing its entire stockpile of mustard ton containers and therefore no storage risk remains.

Tooele The risk at Tooele has been reduced more than 99% since the start of processing due to the destruction of GB and VX rockets. The storage risk of Mustard (HD) accounts for much less than 1% of the total programmatic storage.

Pueblo. Pueblo has not begun to process any of its stockpile of Mustard agent.

Newport. Newport began processing VX ton containers in 2005. The movement of the VX ton containers from outside into hardened storage, combined with disposal, has reduced the storage risk by approximately 85%.³⁷

Umatilla. Umatilla has completed processing GB rockets and bombs. It is currently processing GB projectiles. The risk at Umatilla has been reduced approximately 93% since the start of processing. This reduction is primarily due to both the destruction of the GB rockets, and VX rocket stack-height reduction as well as banding risk mitigation efforts. Umatilla accounts for 2% of the total programmatic risk, primarily due to having VX rockets left.

Blue Grass. Blue Grass has not begun to process any of its stockpile. The storage risk has been reduced due to rocket stack-height reduction and banding risk mitigation efforts have implemented. Note that the destruction of Blue Grass' stockpile will not be completed until approximately 2023.

Anniston. Anniston has destroyed its entire GB stockpile and is now processing VX rockets for destruction. The storage risk at Anniston accounts for approximately 13% of the total programmatic storage risk. After the VX rocket campaign, the risk will drop drastically. Estimated completion of the VX rocket campaign by local authorities is on or around March of 2007.

Pine Bluff. The Pine Bluff Chemical Agent Disposal Facility is currently processing GB rockets. The storage risk at Pine Bluff accounts for approximately 77% of the total

³⁷ NOTE: EPA, Risk Assessment Guidance for Superfund Sites, Volume 3, Part A, Process for Conducting Probabilistic Risk Assessment, dated December 2001 states an event with a risk less than 1×10^{-6} does not warrant investigation. Caution must be taken when reading and understanding the previous statement. The risk indicated here is based on specific criteria, as stated; however, every situation and event is different and special to itself.

programmatic storage risk. Pine Bluff has the highest contribution to overall programmatic storage risk due to the storage of rockets and the close proximity of residents to the Pine Bluff chemical storage area.

With the criteria stated above, the highest risk sites are at Pine Bluff, Anniston, Blue Grass, and Umatilla. However, once Anniston and Umatilla complete VX rocket destruction - on or about the summer of 2007 for Anniston, and on or about the spring of 2008 for Umatilla, the risk drops dramatically, to approximately 3% for each. In addition, once they complete VX rocket destruction, the risk will drop to less than 1%.

As mentioned previously, Chemical Accident or Incident Response and Assistance (CAIRA) has been around longer than NIMS. However, the key to understanding the Department of Defense and Army response to a Chemical Accident or Incident (CAI) - in accordance with HSPD-5, NIMS, NRP, and NCP - is in the laws and directives that impact CAIs and the Army Emergency Response System. As discussed, there is a time limit to report to various organizations and that information is shared at the highest levels between Department of Defense (Army) and Department of Homeland Security.

In addition to the many regulations which govern chemical incident responses, several public laws, executive orders, and Department of Defense directives also have an impact. For example,

- Chapter 103, Sections 9601-9675, Title 42, United States Code, *The Comprehensive Environment Response Compensation and Liability Act (CERCLA)*, Public Law 96-510 (42 USC-9675), December 1980. Congress enacted this public law to establish a reporting, response, and liability system for hazardous substances released into the environment and to authorize federally funded clean-up operations by the Federal government. Chemical agent materiel is legally defined as a extremely hazardous substance.

- Public Law 99-499, *Superfund Amendments and Reauthorization Act (SARA)*, October 1986. This public law amended CERCLA in 1996 by mandating extensive information sharing and emergency planning between operators of hazardous substance facilities and State and local governments.
- Executive Order 12580, *Superfund Implementation*, January 1987. This is the executive order that delegates most of the President's CERCLA authority to the Environmental Protection Agency, except in the case of releases on or from Department of Defense properties not on the National Priority List. Thus, Department of Defense serves as the Lead Federal Agency at Department of Defense installations. Department of Defense has re-delegated this authority to the individual services; the Army has the authority at the Chemical Stockpile Sites.
- Executive Order 13286, *Amendment of Executive Orders with Other Actions in Connection with the Transfer of Certain Functions to the Secretary of Homeland Security*, February 2003. This executive order amended EO 12580 by inserting DHS for EPA. However there was no indication that 12580 has been revoked, so the Army still has the authority for Department of Defense installations.³⁸

A milestone memorandum dated 12 May 2006 from the Chemical Materials Agency stated, "it is important that the US Army Chemical Materials Agency (CMA) adopt the NIMS and the ICS to solidify our readiness to respond not only to the unlikely occurrence of a chemical stockpile incident but to any type of incident. The goal is to ensure CMA has functionally aligned our emergency response and consequence management systems with those of local, state and federal agencies."³⁹

The impact of this memorandum, coupled with the recommendations from the Innovative Emergency Management Report in reference to CMA's adoption of NIMS and ICS, serves to support the three recommendations of this paper: continued

³⁸ Innovative Emergency Management (IEM), *Comprehensive National Incident Management System under the DHS and its impact on the CAIRA process* (Baton Rouge: EIM, Inc., July 2004), 2.

³⁹ CMA, *Adoption of NIMS and ICS*, memorandum signed Director Mr. Parker dated 12 May 2006.

discussions between DHS, ASD(HD&ASA), and the Army; review of AR 50-6 and DA PAM 50-6 against NIMS and the NRP; and continued discussion with NORTHCOM with reference to its role in response to either a terrorist event or a chemical event.⁴⁰ This report was released on 18 July 2004 and some of the recommendations are being executed. However, the turnover of individuals in the last 6 months has been high.⁴¹ These are, key individuals at ASD(HD&ASA) and the Department of the Army with the experience, knowledge, and continuity, of working with chemical storage sites that have either retired or transferred.

Chemical Incident Management Exercise (CIMX) 2006

By sponsoring and hosting the Chemical Incident Management Exercise in March of 2006, the Chemical Materials Agency (CMA) identified both strengths to maintain and areas for further improvement. This was the first time CMA and a chemical stockpile site exercised outside the traditional response; it focused on recovery and reentry planning on a large scale and operated under the Incident Command System (ICS). It was also one of the first Department of Defense exercises conducted under ICS. Many of the participants had just recently (in the previous six to eight months) been trained in ICS. Participants included individuals and organizations from various levels of Federal, State, and local authorities. The exercise indicated a working knowledge and understanding of ICS from the vast majority of participants. Many of the civilian organizations and individuals had just returned from assisting with Hurricane Katrina, and had a phenomenal working

⁴⁰ *Comprehensive National Incident Management System under the DHS and its impact on the CAIRA process*, 9.

⁴¹ Most of the individuals that have assisted me in the various organizations (AMC, OSD, ASD (HD&ASA), and Army) have either retired or transferred to a new job.

knowledge of their subject matter. Both individuals and organizations found the relevance of having a common operating language and system from utilizing the ICS. The exercise emphasized working together at a different time frame - a day or two after the initial response, and working together for a longer period of time - two days verses the normal four to six hours. All the organizations involved, whether from the federal, state, or local level did a excellent job in cooperating with one another and sharing ideas, which added to the learning experience.⁴² Nevertheless, the exercise must be analyzed to develop lessons learned, which then can be applied where applicable. The bottom line was that everyone was clearly an expert in his or her area; however, individuals and sections need more experience utilizing the ICS system. Key elements of the overall process which need to be emphasized include: conducting meetings at the right time with the right information; filling out the standard forms; and understanding the roles and responsibilities of the various sections with ICS. This exercise was a historical benchmark for the Chemical Materials Agency.⁴³

⁴²Though not everything went right, the experience and knowledge gained from this exercise was outstanding.

⁴³ LTC Briggs was the Commander of Anniston Chemical Activity during CIMX 06.

Department of Homeland Security

The dogmas of the quiet past, are inadequate to the stormy present. The occasion is piled high with difficulty, we must rise with the occasion. As our case is new, so must we think anew, and act anew.

1862 address to Congress
President Abraham Lincoln
(Proceedings / October 2003)

History and Background

In order to protect America against enemies that can strike with a wide variety of weapons and to consolidate the 100 different government organizations that were responsible in some manner for homeland security, the President created a new Department, the Department of Homeland Security (DHS). This transformation was one of the biggest in U.S. government in over a half-century. It consolidated organizations that had some responsibility for homeland security into one unified department.

One of the Department's major responsibilities is emergency preparedness and response. This new Department coordinates the government's disaster response efforts, with FEMA being a critical component. Another major responsibility is with the federal government's efforts to prepare for and respond to the full range of terrorist threats involving weapons of mass destruction.⁴⁴

The establishment of this new Department generated the question of how it would incorporate or handle existing preparedness and response programs like the Chemical Stockpile Emergency Preparedness Program (CSEPP). This program, CSEPP, under the Department of Defense, had been around since 1985 and was very successful. Would

⁴⁴ The Department of Homeland Security, *The Department of Homeland Security*, accessed at http://www.dhs.gov/xabout/history/publication_0015.shtm, 3 Jan 2007.

CSEPP simply be incorporated into the new programs that DHS was developing or would it have to comply with some or all of the directives from DHS? The question is - by developing DHS are we going to affect other programs? Harry Yarger, a renowned strategist, defines strategy at the state level as “the art and science of developing and using the political, economic, social-psychological, and military power of the state to create strategic effects that protect or advance national interests in the environment in accordance with policy guidance. Strategy seeks a synergy and symmetry of objectives, concepts, and resources to increase the probabilities and favorable consequences of policy success and to lessen the chances of policy failure.”⁴⁵ The following section will show how the President through Homeland Security Presidential Directive (HSPD-5) and ultimately through the National Incident Management System (NIMS) / Incident Command System is developing and establishing that synergy at the federal, state, and local level.

Supporting Documents

In preparing for battle I have always found that plans are useless, but planning is indispensable.

Dwight D. Eisenhower

US general & Republican politician (1890 - 1969)⁴⁶

National strategic level documents which reference preparedness and response include: *Homeland Security Presidential Directive (HSPD) –5; the National Incident Management System (Incident Command System); the National Response Plan, and*

⁴⁵ Harry R. Yarger, *Strategic Theory for the 21st Century: The Little Book on Big Strategy*, (Carlisle, Pa: Army War College, Feb 2006), 1.

National Contingency Plan. The National Incident Management System bridges the gap from the strategic to operational level. These documents provide the necessary and required legislation, authority, guidance, or details required to respond to a chemical accident, keeping in mind that the Department of Defense is the Lead Federal Agency based on Executive Order 12580. The hierarchy of these documents with a short description and relevance is as follows:

Homeland Security Presidential Directive (HSPD)-5

On 28 February 2003, the President issued HSPD-5, which directed the Secretary of Homeland Security, Tom Ridge, to develop and administer a National Incident Management System (NIMS). This document from the President initiated a national standard to consequence management. The key point from this document are the detailed instructions on what was required and expected from this new system:

This system will provide a consistent nationwide approach for Federal, State, and local governments to work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents, and recover from domestic incidents, regardless of cause, size, or complexity. To provide for interoperability and compatibility among Federal, State, and local capabilities, the National Incident Management System will include a core set of concepts, principles, terminology, and technologies covering the incident command system; multiagency coordination systems; unified command; training; identification and management of resources (including systems for classifying types of resources); qualifications and certification; and the collection, tracking, and reporting of incident information and incident resources.⁴⁷

⁴⁶ Dwight D. Eisenhower, "US general & Republican politician," accessed at http://www.quotationspage.com/quotes/Dwight_D._Eisenhower/ 10 Nov 2006.

⁴⁷ U.S. Department of Homeland Security, *National Incident Management System* (Department of Homeland Security, 2004), 1.

National Incident Management System (NIMS) / Incident Command System (ICS)

Published in March 2004, this policy document defines the roles and responsibilities of federal, state, and local responders during emergency events. NIMS benefits include a unified approach to incident management; standard command and management structures; and emphasis on preparedness, mutual aid and resource management. NIMS defines “how” to manage a large-scale emergency event. The key point from this document is that it provides a clear and concise national standard for emergency response.

NIMS integrates the best existing processes and methods into a unified national framework for incident / accident management. The system ensures that diverse organizations, public and private, are integrated efficiently and effectively to promote interoperability and compatibility. The cornerstone or foundation of NIMS is the Incident Command System (ICS), which ensures that everyone adheres to a core set of concepts, principles, procedures, organizational processes, terminology, and standards.

The authority and responsibility for an Incident Commander to manage an incident or event, comes in the form of a delegation of authority from the agency executive or administrator of the jurisdiction of occurrence, or as inherent in existing agency policies and procedures. When an event spans multiple jurisdictions this responsibility belongs to the various jurisdictional and agency executive or administrators who set policy and are accountable to their jurisdictions or agencies. They must appropriately delegate to the Unified Commanders, who will then collectively develop one comprehensive set of incident objectives, and use them to develop strategies. The

advantages of using the Unified Command is “in incidents involving multiple jurisdictions, a single jurisdiction with multi-agency involvement, or multiple jurisdictions with multi-agency involvement it allows agencies with different legal, geographic, and functional authorities and responsibilities to work together effectively without affecting individual agency authority, responsibility, or accountability.”⁴⁸ This supports Admiral Keating’s quote earlier about working together in a cooperative and collaborative environment.

Gregory Banner in his article “The Incident Command System: How Civilians ‘Think Purple’,” describes ICS as “the civilian purple joint command and control system that allows various agencies to organize a single intelligible structure so that they can work together.”⁴⁹ ICS took the “best practices” from various agencies and departments from around the US, brought them together and developed a sound and dependable system which has become the foundation for small or large emergency or non-emergency events across the country. It was developed after studies found that management of a response was one of the most essential and critical parts of any response.

National Response Plan (NRP)

Released in December 2004, this plan integrates the federal government’s domestic prevention, protection, response, and recovery plans into a single operational plan for all hazards and all emergency response disciplines. The NRP is an all-hazards plan built on the template of the NIMS, which provides the standard or doctrinal framework for incident management. The NRP organizes capabilities, staffing, and

⁴⁸ Ibid., 14.

equipment resources in terms of functions that are most likely to be required during emergency events. This document is the “meat on the bones,” and it goes into great depth on the “how.” The key point of the NRP is its flexibility and adaptability to be activated and implemented either partially or totally depending on the event. This includes incidents of national significance or long-term implications such as a Katrina, a public health or medical emergency or a major power or cyber incident. The activation of one or more of the Emergency Support Functions within the NRP ensures and reinforces its flexibility to maximize capabilities across all agencies involved at all levels.

The NRP applies to all incidents requiring a coordinated federal response as part of an appropriate combination of Federal, State, local, tribal, private sector, and nongovernmental entities. It is applicable to all Federal departments and agencies that have primary jurisdiction for or participate in operations requiring a coordinated Federal response. Individual Departments and Agencies have the authority to enact a variety of comprehensive Incident Annexes and supplemental Federal Contingency Plans found in the NRP. The NRP provides the operational direction for domestic incident management and the structure and mechanisms for national-level policy.⁵⁰ The coordination and management of the NRP is done “by the Federal Emergency Management Agency (FEMA) as an operational component of the Department of Homeland Security (DHS). The NRP is the result of agreements between DHS/FEMA and the primary and supporting federal agencies responsible for providing disaster relief.”⁵¹

⁴⁹ Gregory Banner, “The Incident Command System: How Civilians ‘Think Purple’,” *Army* (January 2004): 11.

⁵⁰ *National Incident Management System*, 1.

⁵¹ *Joint Publication 3-28 Civil Support (Final Draft)*, I-7.

Specific Points with Reference to the NRP

(1) Incident of National Significance (INS): The NRP defines an Incident of National Significance (INS) as “an actual or potential high-impact event that requires robust coordination of the Federal response in order to save lives and minimize damage, and provide the basis for long-term community and economic recovery.”⁵² No automatic triggers exist for an Incident of National Significance; the Secretary of Homeland Security, in consultation with other departments, agencies, as well as the White House, as appropriate, will determine if a declaration is required. The Secretary of Homeland Security will consider criteria found in HSPD-5 as well as other factors before determining whether to declare an event an Incident of National Significance. As directed, the Secretary of Homeland Security will manage the Federal government's response following the declaration of an INS.

Discussion on the categories of chemical incidents was discussed earlier. The decision on what category the event is classified plays a large part on the response.

(2) Components of the National Response Plan: The NRP consists of the following components: the Base Plan, Appendixes, Emergency Support Function (ESF) Annexes, Support Annexes, and Incident Annexes as depicted in Figure 6.

⁵² U.S. Department of Homeland Security, *Quick Reference Guide for the National Response Plan, Version 4.0* (Department of Homeland Security, 2006), 2.

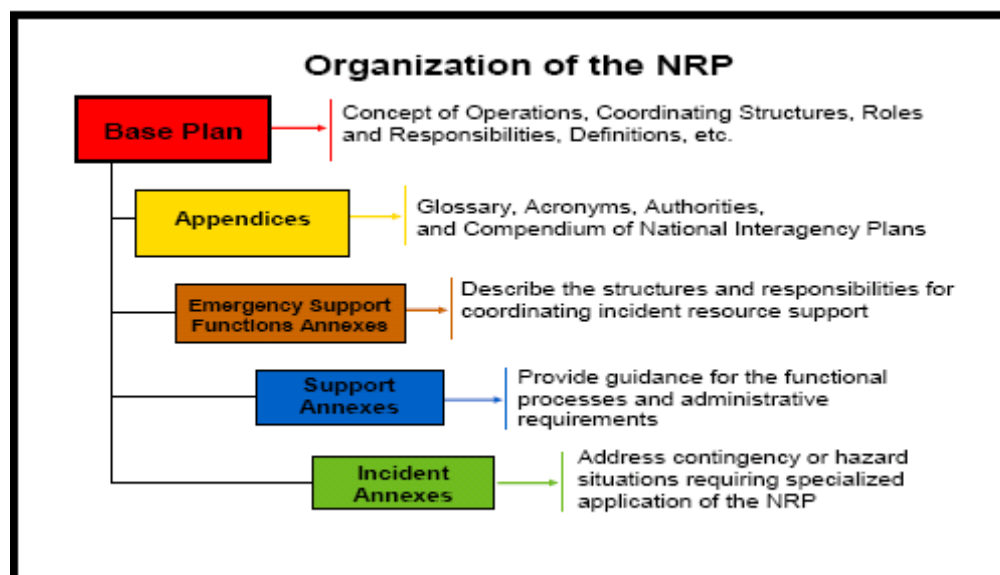


Figure 6 –NRP - Plan Structure⁵³

(a) The Emergency Support Function (ESF) Annexes provides the details for “the missions, policies, structures, and responsibilities of Federal agencies for coordinating resource and programmatic support to States, tribes, and other Federal agencies or other jurisdictions and entities during Incidents of National Significance. ESF is an effective system to group capabilities and resources into the functions that are most likely needed during an actual or potential incident where coordinated Federal response is required.”⁵⁴ Emergency Support Functions provide flexibility to the system due to their modular structures that provides for efficiency with precise components to address the requirements of the incident. Emergency Support Functions may be selectively activated for both Stafford Act and non-Stafford Act incidents by the Secretary of Homeland Security or the ESF Coordinators.

⁵³ *Quick Reference Guide for the National Response Plan*, 2.

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288) (Title 42 United States Code Section 5121, et seq.), legally authorizes the federal government to help state and local governments alleviate the suffering and damage caused by disasters. It establishes the programs and processes for the federal government to provide assistance.⁵⁵

The following is a list of the ESFs and their respective Coordinator:

ESF #1 – Transportation	US Department of Transportation
ESF #2 – Communications	US DHS / National Communications System
ESF #3 – Public Works and Engineering	US Department of Defense / US Army Corps of Engineers
ESF #4 – Firefighting	US Department of Agriculture
ESF #5 – Emergency Management	US DHS / FEMA
ESF #6 – Mass Care, Housing, and Human Services	US DHS / FEMA
ESF #7 – Resource Support	US General Services Administration
ESF #8 – Public Health and Medical Services	DHS / FEMA
ESF #9 – Urban Search and Rescue	DHS / FEMA
ESF #10 – Oil and Hazardous Materials Response	US Environmental Protection Agency
ESF #11 – Agriculture and Natural Resources	US Department of Agriculture
ESF #12 – Energy	US Department of Energy

⁵⁴ Ibid., 14.

⁵⁵ The Robert T. Stafford Disaster Relief and Emergency Assistance Act, Statutes at Large 42, sec 5121, (2000), accessed at <http://www.fema.gov/about/stafact.shtm>, 5 Jan 2007.

ESF #13 – Public Safety and Security US Department of Justice

ESF #14 – Long Term Community Recovery US DHS / FEMA

ESF #15 – External Affairs US DHS

The following illustrates an example of one of the ESFs. If an INS event occurred at one of the Chemical Stockpile Sites, this is the ESF that could be activated. This is the one that would directly relate to a chemical spill at one of the Chemical Stockpile Sites.

Emergency Support Function #10 – Oil and Hazardous Materials Response Annex

ESF Coordinator: Environmental Protection Agency

Primary Agency: Environmental Protection Agency or Department of Homeland Security/ U.S. Coast Guard

Support Agencies: Department of Agriculture, Department of Commerce, Department of Defense, Department of Energy, Department of Health and Human Services, Department of Homeland Security, Department of the Interior, Department of Justice, Department of Labor, Department of State, Department of Transportation, General Services Administration, Nuclear Regulatory Commission

ESF #10 provides Federal support in response to an actual or potential discharge and/or uncontrolled release of oil or hazardous materials during Incidents of National Significance when activated. The Federal Government also may respond to oil and hazardous materials Incidents of National Significance using mechanisms of the National

Oil and Hazardous Substances Pollution Contingency Plan (NCP) without activating ESF #10. Those procedures are described in the Oil and Hazardous Materials Incident Annex.

(b) Incident Annex: The Incident Annexes address contingency or hazard situations requiring specialized application of the NRP. The Incident Annexes describe the missions, policies, responsibilities, and coordination processes that govern the interaction of public and private entities engaged in incident management and emergency response operations across a spectrum of potential hazards. These annexes are typically augmented by a variety of supporting plans and operational supplements. Current Incident Annexes include: Biological Incident, Catastrophic Incident, Cyber Incident, Food and Agriculture Incident, Nuclear/Radiological Incident, Oil and Hazardous Materials Incident, and Terrorism Incident Law Enforcement and Investigation. If a plume, down-wind hazard, left the installation and caused mass evacuation (and/or deaths and mass casualties), in all likelihood the Catastrophic Incident Annex would be activated since it would meet the required criteria as stated below.

EXAMPLE:	Catastrophic Incident Annex
Coordinating Agencies:	Department of Homeland Security
Cooperating Agencies:	All Federal departments and agencies (and other organizations) with assigned primary or supporting Emergency Support Function (ESF) responsibilities.

The Catastrophic Incident Annex to the National Response Plan (NRP-CIA) establishes the context and overarching strategy for implementing and coordinating an accelerated, proactive national response to a catastrophic incident. A catastrophic incident, as defined by the NRP, is 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. A catastrophic incident could result in sustained national impacts over a prolonged period of time and will almost immediately exceed resources normally available to the State. All catastrophic incidents are Incidents of National Significance (INS). The NRPCIA establishes protocols to pre-identify and rapidly deploy key essential resources (medical teams, urban search and rescue teams, transportable shelters, medical and equipment caches, etc.) that are expected to be urgently needed or required to save lives and contain incidents.

National Contingency Plan (NCP)

The *National Oil and Hazardous Substances Pollution Contingency Plan*, more commonly known as the National Contingency Plan or NCP, is the federal government's blueprint for responding to both oil spills and hazardous substance releases. The development of the NCP was due to the national interest in establishing a response capability and promoting overall coordination and synchronization between and among responders and contingency plans. The NCP is the “how” and “what” specifically for hazardous substance releases.

Development and implementation of the first National Contingency Plan was “in 1968 in response to a massive oil spill from the oil tanker *Torrey Canyon* off the coast of England the year before. More than 37 million gallons of crude oil spilled into the water, causing massive environmental damage.”⁵⁶ The US developed a coordinated approach to cope with potential spills in U.S. waters. The 1968 plan provided a guide to some key and essential components of a comprehensive system such as accident reporting, spill containment, and cleanup, and established a response headquarters, a national reaction team, and regional reaction teams. The key point of this document is that it focuses in a very specific area and emphasizes nesting of plans.

The NCP establishes a response capability and promotes overall coordination and synchronization between and among responders and contingency plans for oil spills and hazardous substance releases. The NCP is a network of contingency plans with different levels of geographical scope that form the backbone of our country's efforts to prepare for and coordinate responses to emergency incidents:

The National Contingency Plan Overview (National Oil and Hazardous Substances Pollution Contingency Plan - 40 CFR Part 300) is the federal government's primary plan for preparing for, and coordinating with, other emergency responders. The NCP establishes the principles and structure of the unified command system and identifies the roles and responsibilities of the key players within the system.

The federal government also prepares **Regional** and **Area Contingency Plans** that coordinate effective responses within each of the 10 standard federal regions and other designated Areas covering Alaska, the Caribbean, and several islands in the Pacific. These plans include preparedness information on a regional level and identify useful response facilities and resources available from government, commercial, academic, and other sources.

At the local level, **Local Contingency Plans** are developed to prepare and organize local resources in the event of the accidental release of hazardous substances. Under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), state governors are required to establish State Emergency

⁵⁶ U.S. National Protection Agency, *National Contingency Plan (NCP)*, accessed at <http://www.epa.gov/oilspill/pdfs/40cfr300.pdf>, 11 Nov 2006.

Response Commissions, which in turn establish Local Emergency Planning Committees (LEPCs) for districts within the state. These emergency planning organizations are responsible for developing local contingency plans using chemical inventory information collected as part of the law's community right-to-know provisions.⁵⁷

Current DHS Scenarios

The Homeland Security Council (HSC), in partnership with other organizations at the federal, state and local level has developed a list of all-hazards planning scenarios for use in preparedness activities. The focus of these 15 scenarios is on response capabilities and needs, not threat-based prevention activities.⁵⁸ Many of these scenarios were developed to test the range of response capabilities and resources. A number of these scenarios focus on Chemical (WMD), but nothing specifically involves a Chemical Stockpile Site accident. As would be expected, the scenarios' focus (or mission areas) is as follows: Prevention/Deterrence/Protection, Emergency Assessment/Diagnosis, Emergency Management/Response, Incident/Hazard Mitigation, Public Protection, Victim Care, Investigation/Apprehension, and Recovery/Remediation.

As stated previously, the intent of the President in HSPD-5 with NIMS/ICS was to develop a national standard for consequence management that would ensure synergy and unity of effort. As Admiral Timothy Keating stated, it is more about communication and collaboration – working together. The addition of an incident at a Chemical Stockpile Site to the DHS scenarios could be argued both ways – for and against. The argument for, would be based on the President's intent of a national standard, supported by Admiral Keating's statement on the importance of collaboration,

⁵⁷ Ibid., 45.

⁵⁸ Homeland Security Council, *DHS Scenarios, Executive Summaries*, accessed at <http://www.globalsecurity.org/security/library/report/2004/hsc-planning-scenarios-jul04.htm>, 1 Dec 2006.

and the fact we actually know where WMD (chemical munitions) sites are located. The argument against, would be based on the fact that the scenarios were developed to ensure capabilities of a response and there are already processes and forces in place to accomplish this for a Chemical Stockpile Site incident. In addition, you could argue that the damage done to the infrastructure, economy, and community (to include environment and people) would not be as catastrophic – as it would with the existing DHS scenarios. However, the real utility would be to conduct a DHS chemical exercise near one of the Chemical Stockpile Sites and see how the community responds. One would believe, that since the chemical sites conduct quarterly exercises on post and an annual exercise that involves the off post (local and state), that the response should be better than average.

Analysis and Recommendations

Just as we must transform America's military capability to meet changing threats, we must transform the way the Department works and what it works on. We must build a Department where each of the dedicated people here can apply their immense talents to defend America, where they have the resources, information and freedom to perform... It demands agility – more than today's bureaucracy allows.

Donald H. Rumsfeld, Secretary of Defense
September 10, 2001 (pg 63 QDR)

Cooperative and Collaborative

Laws and authority clearly show that the Department of Defense, and in turn the Army, has the CERCLA responsibility. However, other organizations, especially state(s), have legal and moral obligations. However unlikely or improbable, a catastrophic chemical event happening at an Army chemical stockpile site, if a significant amount of the plume left the installation boundaries, would probably be considered a Incident of National Significance and the NCP would certainly play a huge part in the response. Even if there were no casualties, a catastrophic release from a Chemical Site would get national interest very quickly.

The following recommendations are broken down into four parts: authority and capability, risk, a “way” to improve the system, and the current environment. There is both a art and science to responding to a chemical event. The art involves more of the human dimension - experience, knowledge, personalities, politics, communications, and teamwork at the local, state, tribe, and federal level. The science deals more with the policy, laws, directives, capabilities, resources, strategy and other more of the tangible things. There must be an understanding and balance of all to be successful.

Authority and Capability:

The Army should re-look its strategy and be prepared to formally request assistance from some of the more newly formed organizations such as NORTHCOM, JTF-CS, and 20th Support Command (FOSCOM). As far as selection of a qualified SRF commander, there are three options:

- As already stated, the JTF-CS commander is a Major General. The JTF-CS is trained, equipped, and experienced to work under NIMS (ICS). The Army could go through the Joint Staff to request for forces from NORTHCOM. More specifically, it could request that one of the General Officers from the organization who is trained and experienced in NIMS/ICS serve as the Commander for the SRF or Federal On-Scene Commander (FOSC). Even if the the JTF-CS Commander is not selected as the SRF Commander, the JTF-CS should take over the mission of the SRF staff, based on its mission and coupled with its capabilities, training, and resources availability. As stated earlier under Chemical Incident Management Exercise (CIMX) 06, one of the challenges was the lack of experience of working under NIMS (ICS). Having a organization that has the capability to do this efficiently and effectively would enhance the response. As the response continues, the JTF-CS could be replaced or augmented by qualified individuals from the Army Materiel Command (AMC) staff who could provide technical expertise and a reach-down capability into the installation staff.
- Another option for the Commander of the SRF or FOSC would be to increase the Chemical Materials Agency's Chief of Staff position from a Colonel to Brigadier General and predesignate him as the response commander. As mentioned earlier, the 20th Support Command has a well-recognized capability with all the specialized units under its command, some which would or could respond to the incident. Its location on the same installation as CMA makes coordination, planning, and execution a little easier. Since this unit is new and has a specific real-world mission, its utilization or participation should be discussed in detail to formulate a formal agreement and determine whether expanding its role is feasible, acceptable, and suitable.
- The National Guard Bureau not only has the unique capabilities of the Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives Emergency Response Force Package (CERFP) regionally and Civil Support Teams (CSTs) in each state, but would be closer to the incident both physically and emotionally. One of the mission areas in the National Military Strategy to Combat Weapons of Mass Destruction is WMD Consequence Management. It states that building

partnership capacity enhances the capability to combat WMD.⁵⁹ Another recommendation for selection of a SRF commander or FOSC would be to federalize the Adjutant General (TAG) of the state and have the TAG serve as the SRF commander. The advantages of selecting the TAG is the experience and knowledge he/she has reference emergency management and resources available to the state. If this COA is selected, some type of agreement would have to be made with the state and a detailed MOA would have to be drafted. This may be the least preferred method due to a number of reasons, however it is a COA

In any case, the OSC or IRF commander should be the installation commander. Each depot has an extremely well trained and equipped response team that has worked together with the installation staff through many exercises. Couple this capability with personnel and equipment being deployed from other sites within CMA, and the possible use of some of the 20th Support Command and National Guard capabilities, I therefore believe that there would be more than enough resources to handle the on-post accident.

In December 2005, HQDA issued an Executive Order (693-05 – *Plan of Action for Implementation of the NRP and NIMS*) that directed MAJCOMs to provide a plan of action on their adoption and implementation of the NRP and NIMS. In addition, the Director for the Chemical Materials Agency directed sites “to functionally align our emergency response and consequence management systems with those of local, state and federal agencies.”⁶⁰ A lot has changed, and will continue to change for the better, since the development of DHS, implementation of NIMS (ICS), and the development of other military capabilities, including NORTHCOM, JTF-CS, 20th Support Command and the National Guard. Since CMA is “working itself out of a job,” in the sense that as each site completes its stockpile disposal mission people are leaving or retiring, much of the

⁵⁹ Chairman of the Joint Chiefs of Staff, *National Military Strategy to Combat Weapons of Mass Destruction*, (Chairman of the Joint Chiefs of Staff, 13 Feb 2006), 6.

⁶⁰ *Adoption of NIMS and ICS*, 2.

experience, knowledge, and actual manpower is being lost at individual sites. As stated by MG Bruce Davis, the commander for Joint Task Force – Civil Support, the “JTF-CS helps coordinate federal efforts to help civil authorities prepare for and manage the effects of possible terrorist attacks on the homeland involving chemical, biological, radiological, nuclear or other high-explosive weapons.”⁶¹

Whatever titles are finally decided for the two commanders, OSC / FOSC or IRF / SRF, the installation commander has the ability, knowledge, and reputation to successfully work with the local authorities. Leaving the on post incident to the installation commander, the incoming commander (SRF / FOSC) could focus on the “big picture” – legal, media, and working with other senior federal and state officials. Certainly, the installation would report information to him and even provide an LNO, but the most effective response would be to allow the installation commander to focus his efforts and resources to quickly and safely mitigate the accident. The installation commander should not be put under the operational control of the Commander of the SRF or FOSC, since many of these installations serve as Depots and they have other missions that effect national security. Ensuring that the installation commander, or chemical activity commander, is part of the unified command is critical, as that is the focal point of the accident. The commander has not only built a relationship with local and state representatives, but understands the specific local and state operating procedures and laws.

⁶¹ Gerry J. Gilmore, “Agency Helps Civil Authorities Prepare for WMD Events,” accessed at <http://www.globalsecurity.org/security/library/news/2007/01/sec-070110-afps02.htm>, 7 Jan 2007.

The first step to providing the proper authority to the correct Commanders or Services is to conduct a meeting with the “key players” to begin a mission analysis problem/issue. If formal agreements are made or direction provided by Joint Staff, then Army regulations and site plans should be updated with the details of who has the authority, and what exactly are their responsibilities. Certainly with the new guidance of “to operate under NIMS (ICS)” coupled with new capabilities available, now is the time to relook the plan.

Mitigating Risk

As discussed earlier in detail, the threat of a chemical stockpile site accident is extremely low. Due to the location of igloos and their structure, the chances of a liquid contamination leaving the post is phenomenally low. In addition, with the amount of munitions and the type of agents left to destroy, and the timeline for destruction, I believe that the current highest priorities should go to Pine Bluff, Anniston, and Blue Grass. It should be noted that each one of these sites is a Chemical Activity, meaning that they are on an installation that conducts other activities. Evaluating risk is a continuous process. The analysis must include the significant impact that an event at one of the Chemical Activity Sites, even if it did not leave the depot, would have on the depot. Once Pine Bluff and Anniston completes their VX rockets destruction campaign, the risk to the community is less than approximately 3%. Blue Grass will quickly jump to the highest risk since they will not be completed until 2023. Blue Grass’s risk is also due to their location in relationship with the surrounding community and the number and type of chemical munitions.

A “Way” to Improve the System

As directed by CMA, the Chemical Stockpile Sites should convert over to NIMS (ICS). By fully converting to ICS, three things are immediately accomplished: all installations are trained to the national standard; assistance can be given to sites if called upon; and the installation and the external community gain terminology and execution equivalence. Once the stockpile is destroyed at a site, individual workers could, if they wish, transfer to another site or go on to work in local, state, or federal consequence management.

Now is the time to re-look how (and who) responds to a chemical event at a chemical stockpile site. As in adaptive planning, every six months the plan should be reviewed completely and an assessment made to the Director of CMA and the Commander of AMC. The staff at both CMA and AMC have the capability to provide guidance and in-put based on major changes.

During this collaborative meeting with all the participants mentioned above, discussion of inclusion of a chemical event exercise into the DHS seneriaros and/or into the NORTHCOM’s annual Vigilant Shield Exercise should be discussed. By highlighting the exercises that are already conducted at the sites, integration and synchronization with other organizations will result.

The Current Environment:

The current response system, CAIRA, and plans for response to a chemical accident at a chemical stockpile site are good. The above recommendations would make a good system even more effective and efficient. The biggest step involves communication. If the Army takes the lead in conducting a series of meetings to discuss

and resolve some of these challenges, not only would Army publications and plans be improved, but individual and organizational knowledge and experience would be increased. The focus must be on what is done, as well as how it is done. The most important result is safety of people, communities, and the environment.

In conclusion, it appears that after researching this thesis that the common threads is knowledge, understanding, and communication. Knowledge in the sense that we need subject matter experts to clearly understand what the standards are at each level of government (federal, state, and local). Understanding ties all of the knowledge together; to explain how the response system for consequence management operates and this can be done at meetings and through education. And communication in the sharing of knowledge and ensuring that everyone understands. Communication is the key to both preparedness and response. Even the recommendations provided previously state that there should be meetings conducted to further discuss the path forward.

The challenge that we must realize and appreciate is that there are probably only a hand-full of people that have the knowledge and understanding of the whole consequence management system in relationship to response at a Chemical Stockpile Site. These are the people that understand the NRP, NCP, NIMS/ICs, CSEPP, and CAIRA – from tooth to tail. That is an immense amount of information to understand and apply into a comprehensive and effective system, however now is the time to communicate. Now is the time for the Army, AMC, or CMA to pull everyone together and analysis where we are and where we want to go.

Selected Bibliography

- Banner, Gregory. "The Incident Command System: How Civilians 'Think Purple'." *Army* (January 2004): 10-13.
- Bowman, Steve. *Homeland Security: The Department of Defense's Role*. Congressional Research Service: The Library of Congress, 2003.
- Chairman of the Joint Chiefs of Staff. *National Military Strategy to Combat Weapons of Mass Destruction*, 13 Feb 2006.
- The Department of Homeland Security. *The Department of Homeland Security*. Accessed at http://www.dhs.gov/xabout/history/publication_0015.shtm on 3 Jan 2007.
- Director of Central Intelligence. "CW Use in Iran-Iraq War". Accessed at http://www.fas.org/irp/gulf/cia/960702/72566_01.htm on Jan 2007.
- Eisenhower, Dwight D. "US general & Republican politician". Accessed at http://www.quotationspage.com/quotes/Dwight_D._Eisenhower/ on 10 Nov 2006.
- Eisler, Peter. "Pentagon Delays Chemical Weapons Disposal". Accessed at <http://www.defensenews.com/story.php?F=2373202&C=america> on 13 Feb 2007.
- FEMA/CSEPP. *Fiscal Year 2005 Report to Congress*. FEMA / CSEPP: March, 2006.
- FEMA/CSEPP. *CSEPP UPDATE*. FEMA / CSEPP: November 2006.
- Flournoy, Michele. "Did the Pentagon Get the Quadrennial Defense Review Right?" *Washington Quarterly*, 29:2.
- Friel, Brian. "Unstrategic Plans." *Government Executive*, December 2005, 88.
- General Accounting Office Report. *Chemical Weapon Stockpile: Army's Emergency Preparedness Program Has Been Slow to Achieve Results* (GAO Report, Feb 1994): 2.
- Gilmore, Gerry J. "Agency Helps Civil Authorities Prepare For WMD Events". Accessed at <http://www.globalsecurity.org/security/library/news/2007/01/sec-070110-afps02.htm> 7 Jan 2007.

- Homeland Security Council. *DHS Scenarios*. Accessed at <http://www.globalsecurity.org/security/library/report/2004/hsc-planning-scenarios-jul04.htm> on 1 Dec 2006.
- Innovative Emergency Management (IEM). *Comprehensive National Incident Management System under the DHS and its impact on the CAIRA process*. Baton Rouge: IEM, Inc., July 2004.
- MC1 (SW/AW) Juatai, Joaquin. "Interagency cooperation emphasized, exercised during Vigilant Shield". Accessed at http://www.northcom.mil/newsroom/news_release/2006/121206.html on 15 Jan 2007.
- Midyette Jr., J. Emery. "Resource and Structure of States' National Guard," *Joint Center for Operational Analysis* Volume VIII, Issue 2 (June 2006): 41.
- National Guard Bureau. "The National Guard's Role in Homeland Defense". Accessed at <http://www.ngb.army.mil/features/HomelandDefense/cerfp/index.html> on 15 Jan 2007.
- Organization for the Prohibition of Chemical Weapons. A history of chemical weapons. Accessed at www.opcw.org/en/cw_use_history.html on 15 Jan 2007.
- The Robert T. Stafford Disaster Relief and Emergency Assistance Act. Statutes at Large 42, sec 5121, (2000). Accessed at <http://www.fema.gov/about/stafact.shtm>. on 5 Jan 2007.
- Shannon, Ronica. "Congress gets new depot timeline, cost". Accessed at http://www.richmondregister.com/siteSearch/apstorysection/local_story_011225550.html on 13 Jan 2007.
- Shumpert, Barry L. *Integrating NIMS into CSEPP*. Oak Ridge: Oak Ridge National Laboratory, 2006.
- Economy Act, Statutes at Large 31, secs 1535 (2001), Accessed at <http://casu.gov/authority/usc1535.html> on 15 Jan 2007.
- Takafuji, Ernest T. and Kok, Allart B. *The Chemical Warfare Threat and the Military Healthprovider*. Accessed at https://ccc.apgea.army.mil/sarea/products/textbook/Web_Version/chapters/chapter_4.htm#introduction on 15 Jan 2007.

Terrwilliger, Michael S. "Selling ICS is Like Showing a Pig a Watch," *Fire Engineering*, (September 2004): 98-101.

U.S. Army Chemical Materials Agency (CMA). (Chemical Stockpile Emergency Preparedness Program (CSEPP)), accessed at <http://www.cma.army.mil/csepp.aspx> on 13 Jan 07.

U.S. Department of Army, *Army Regulation 50-6 (Chemical Surety)*, 26 Jun 2001.

U.S. Department of Army, *Department of the Army Pamphlet 50-6 (Chemical Accident or Incident Response and Assistance (CAIRA) Operations)*, 26 Mar 2003.

U.S. Department of Defense, *Quadrennial Defense Review Report (QDR)*, 6 Feb 2006.

U.S. Department of Homeland Security. *Quick Reference Guide for the National Response Plan. Version 4.0 Homeland Security*, 2006.

U.S. Department of Homeland Security. *National Incident Management System*, 2004.

U.S. Joint Chiefs of Staff. *Joint Publication 3-26 Homeland Security*, 2005.

U.S. Joint Chiefs of Staff. *Joint Publication 3-28 Civil Support (Final Draft)*, 2006.

U.S. Joint Chiefs of Staff. *Joint Publication 3-41 Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives Consequence Management (Final Coordination)*, 2006.

U.S. National Protection Agency, *The National Contingency Plan (NCP)*. Accessed at <http://www.epa.gov/oilspill/pdfs/40cfr300.pdf>. on 11 Nov 2006.

Yarger, Harry R. *Strategic Theory for the 21st Century: The Little Book on Big Strategy*. Carlisle Pa: U.S. Army War College, Feb 2006.

About the Author

Lieutenant Colonel Briggs is Chemical Officer in the U.S. Army. He received a commissioned as a Second Lieutenant upon graduation from Southeastern Louisiana in 1986 with a Bachelor of Science in Biology. He also holds a Master's from Jacksonville State University, Alabama. He is a graduate of the US Army Chemical Officer Basic and Advanced Course, US Army Command and Staff College, and various specialty schools (Chemical Recon, BIDS, Technical Escort, Nuclear Weapons). He has served in various billets within the Army (Chemical Corps) to include Battalion (Mechanized Infantry) and Brigade (Armor) Chemical Officer, Operations (S-3) and Executive Officer (XO) for a Chemical Battalion, Senior Chemical Observer Controller at JRTC, Commanded the 51st Chemical Company (both Decon and Recon) and the Anniston Chemical Activity.

EXTRA MATERIAL

Maj. Gen. William Webster, director of operations for USNORTHCOM. “The strongest asset we have, in my opinion, is our working relationship with the other agencies.”⁶²

“JDOMS will validate all RFA until a PDD is issued. Upon PDD and once established, the DCO validates all requests for assistance from the Federal Coordinating Officer (FCO). Only SecDef can approve commitments of forces. There is a permanently assigned DCO and Element (staff) in each FEMA region in order to plan, coordinate, and integrate defense support of civil authorities (DSCA) with local, state and federal agencies.”⁶³

A severe incident at a nuclear power plant, whether or not it is terrorist-initiated, could result in a release of radioactive materials to the environment with adverse consequences to public health. Scenarios for such severe incidents have not been included in this scenario set because: (a) current federal regulations from the Nuclear Regulatory Commission and the DHS Federal Emergency Management Agency (FEMA) mandate robust emergency planning and preparedness for each nuclear plant to include the full

⁶² http://www.northcom.mil/newsroom/news_release/2006/121206.html - *Interagency cooperation emphasized, exercised during VS 07*

⁶³ Email from COL Mayr DCO for region IV date 17 Jan 2007. (Ask if can use)

range of response organizations; and (b) scenarios for nuclear plants cannot be generically extrapolated to other types of facilities (e.g., chemical plants).⁶⁴

2 of the 15 scenarios uses WMD type of chemical releases --- why not include scenarios where we definitely know where chemical agents are? You could argue the point that the Department of Defense has an extremely strong security and response system, but my agreement would be that it is more feasible and probable than the current scenarios.

A little-noticed change in federal law packs an important change in who is in charge the next time a state is devastated by a disaster such as Hurricane Katrina

Over objections from all 50 governors, Congress in October tweaked the 200-year-old Insurrection Act to empower the hand of the president in future stateside emergencies

A bipartisan majority of both chambers of Congress adopted the change as part of the 439-page, \$538 billion 2007 Defense Authorization Bill signed into law last October.

The nation's governors through the National Governors Association (NGA) successfully lobbied to defeat a broader proposal to give the president power to federalize Guard troops without invoking the Insurrection Act. But the passage that became law also "disappointed" governors because it expands federal power and could cause confusion between state and federal authorities trying to respond to an emergency situation, said David Quam, an NGA homeland security advisor.

Congress changed the Insurrection Act to list "natural disaster, epidemic, or other serious public health emergency, terrorist attack or incident" as conditions under which the

⁶⁴ DHS Scenarios Available from http://www.scd.state.hi.us/upload/CBP/National_Planning_Scenarios_ExecSummaries_ver2.pdf Internet; 20 Jan 2007.

president can deploy U.S. armed forces and federalize state Guard troops if he determines that "authorities of the state or possession are incapable of maintaining public order."

Backers of the new rules, including U.S. Sens. John W. Warner (R-Va.) and Edward Kennedy (D-Mass.) said the changes were needed to clarify the role of the armed forces in responding to serious domestic emergencies.⁶⁵

Expand the Army's 20th Support Command (CBRNE) capabilities to enable it to serve as a Joint Task Force capable of rapid deployment to command and control WMD elimination and site exploitation missions by 2007.⁶⁶

Working together will improve interagency planning and scenario development and enhance interoperability through experimentation, testing, and training exercises.⁶⁷

New or expanded authorities to improve access to Guard and reserve forces for use in the event of a man-made or natural disaster.⁶⁸

The Anniston Army Depot, under Army Material Command, is the only location where all 10 variants of the Army's Stryker vehicles are assembled and where the Marine's and Army's M-1 tanks and other combat vehicles are overhauled.⁶⁹ The Blue Grass Army Depot (BGAD), under XXXXXXXX, mission is to provide munitions, chemical defense equipment and special operations support to the Department of

⁶⁵ Governors lose in power struggle over National Guard. Available at <http://www.stateline.org/live/details/story?contentId=170453> Internet; accessed on 12 Jan 2007.

⁶⁶ Quadrennial Defense Review Report, 6 Feb 2006, pg 52

⁶⁷ Quadrennial Defense Review Report, 6 Feb 2006, pg 27

⁶⁸ Quadrennial Defense Review Report, 6 Feb 2006, pg 27

⁶⁹ http://www.defenselink.mil/news/Aug2005/20050813_2410.html --- anniston army depot article

Defense.⁷⁰ The Pine Bluff Arsenal's (PBA), under Army Material Command, primary missions include: conventional ammunition, chemical and biological defense, and serves as a conventional depot. PBA is unique in that it is the Army's sole facility for the repair and rebuild of protective mask and that it produces 85% of the ammunition ranging in calibers from 440MM to 175MM..⁷¹ No matter what happens, I would venture to say that each of the respective commands would still expect to be in the reporting chain, since it happened on one of their installations and it not only has an impact on their mission but to national security.

⁷⁰ http://www.globalsecurity.org/wmd/facility/blue_grass.htm --- BGAD article

⁷¹ <http://www.pba.army.mil/Right%20Column/Welcome.pdf> --- pine bluff article