
PINE BLUFF COMMUNITY CSEPP EXERCISE 2006

(Pine Bluff CSEPP EX 06)

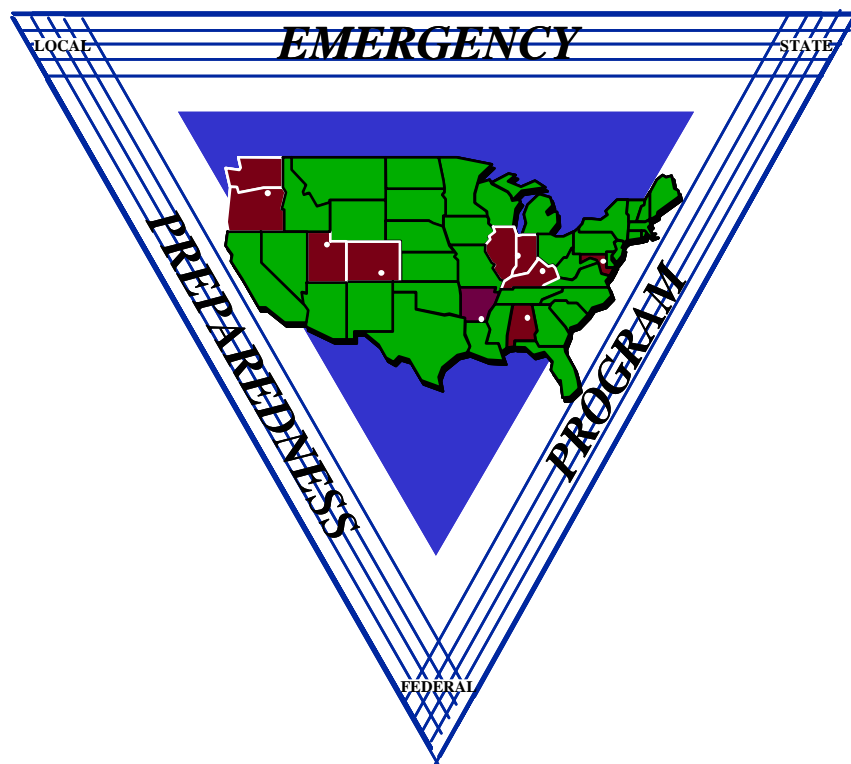


Homeland
Security



FEBRUARY 8, 2006

CHEMICAL STOCKPILE



EXERCISE REPORT

May 10, 2006

**CHEMICAL STOCKPILE EMERGENCY PREPAREDNESS PROGRAM
(CSEPP)**

**PINE BLUFF COMMUNITY CSEPP EXERCISE 2006
(Pine Bluff CSEPP EX 06)**

February 8, 2006

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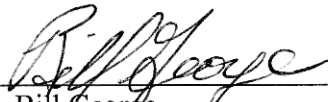
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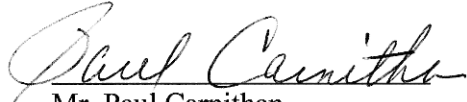
Pine Bluff Arsenal, Pine Bluff, Arkansas

RESPONSE ORGANIZATIONS:

**Pine Bluff Chemical Activity, Pine Bluff, Arkansas
CMA, Edgewood, MD
Arkansas Department of Emergency Management
Jefferson County, Arkansas
Grant County, Arkansas
Arkansas County, Arkansas
Cleveland County, Arkansas
Dallas County, Arkansas
Lincoln County, Arkansas
Lonoke County, Arkansas
Prairie County, Arkansas
Pulaski County, Arkansas
Saline County, Arkansas**

APPROVED BY:


Mr. Bill George
DHS Exercise Co-Director
Denton Field Office


Mr. Paul Carnithan
Army Exercise Co-Director
Chemical Materials Agency

PINE BLUFF COMMUNITY CSEPP EXERCISE 2006
(Pine Bluff CSEPP EX 06)

EXERCISE REPORT
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SECTION 1. INTRODUCTION

The Pine Bluff Community Chemical Stockpile Emergency Preparedness Program (CSEPP) Exercise 2006 (Pine Bluff CSEPP EX 06) was conducted on February 8, 2006, to demonstrate the emergency response capabilities of the Pine Bluff CSEPP Community and to validate the correction of Findings identified during past CSEPP exercises. The CSEPP communities successfully demonstrated shelter capabilities during the Hurricane Katrina/Rita disaster response and were given exercise credit.

The requirement for conducting CSEPP exercises was established in the August 1998 Memorandum of Understanding (MOU) between the Federal Emergency Management Agency (FEMA) and the U.S. Army. Exercise design, planning, evaluation, and reporting guidance is contained in the *Chemical Stockpile Emergency Preparedness Program Exercises* document, dated September 7, 2004.

Exercise design and planning for Pine Bluff Community CSEPP EX 06 was accomplished for the Army by the Army Exercise Co-Director and representatives from the Pine Bluff Chemical Activity (PBCA) and the Pine Bluff Arsenal (PBA). The Department of Homeland Security (DHS) Exercise Co-Director and representatives from the Arkansas Department of Emergency Management (ADEM); the Counties of Jefferson, Grant, Arkansas, Cleveland, Dallas, Lincoln, Lonoke, Prairie, Pulaski, and Saline accomplished design and planning for off-post play.

The exercise was evaluated using the Integrated Performance Evaluation (IPE) methodology and Emergency Response Outcomes (ERO).

- 1 Prevention and Preparedness
- 2 Emergency Assessment
- 3 Emergency Management
- 4 CAI Hazard Mitigation
- 5 Protection
- 6 Victim Care
- 7 Emergency Public Information
- 8 Remediation and Recovery

The scope and substance of play for the Army and off-post jurisdictions are described in individual Extent of Play Agreements which are in Annex B of the Exercise Plan.

SCENARIO DESCRIPTION

The exercise evaluation was based on the observation of the response to a simulated accident involving M23 VX-filled land mines during an approved routine storage operation. The accident occurred at 0840 when a forklift in a storage igloo moving a pallet with a metal drum containing three mines suddenly accelerated toward the door and struck the door frame. The impact caused the large battery on the forklift to explode in the doorway and the drum to roll off the shattered pallet onto the igloo apron. The drum was severely damaged, as were the

mines, and liquid nerve agent spilled over a large area on the apron. Two workers suffered severe trauma injuries, one of whom was also contaminated by liquid agent. A third worker also was contaminated at the site. The two workers nearest the forklift were splashed with battery acid. The event happened so fast that workers at the site were unsure of exactly what occurred. They immediately moved away from the igloo, simultaneously ministering to each other and reporting to the Pine Bluff Arsenal Emergency Operations Center (EOC) that there was an explosion at the igloo and workers were injured.

As expected, the report of the explosion and the absence of details about the condition of the mines prompted the hazard analyst and others in the EOC to react as though all three mines exploded. Initial decisions about protecting the post population and nearby communities were based on this assumption, and on a simulated wind blowing from 56 degrees. Thus the initial response was to protect persons in the Depot Area on the Arsenal by instructing them to evacuate, and in zones A and J southwest of the Arsenal by instructing them to take shelter temporarily. It was not until 1115, when Army Explosive Ordnance Disposal (EOD) experts completed their survey of the site, that Army officials learned that none of the mines exploded, though all had been damaged and had leaked much of their contents, and that the hazard from the spill was confined within the installation boundary.

SIGNIFICANT EVENTS TIMELINE

Time	Jurisdiction	Activities	Outcome
0840	PBA	STARTEX	
0840	PBA	Event was recognized by workers in the field as a reportable emergency	4
0840	PBA	EOC activation sufficient to make hazard analysis, PARs and PADs	3
0840	PBA	RTAPs prepared for off-post deployment if requested	2
0841	PBA	Workers reported emergency to EOC	4
0841	PBA	Workers initiated action to protect themselves	6
0842	PBA	Senior Army official were told about initial accident report(s) from the field	2
0842	PBA	Senior Army official classified event as <u>Community Emergency</u>	2
0842	PBA	Initial hazard analysis determined the on-post zone at risk to be the Depot Area	5
0842	PBA	Senior Army official decided PAD to evacuate the Depot Area	5
0842	PBA	Senior Army official decided PAR to take temporary shelter in off-post zones A and J	2
0845	PBA	Initial hazard analysis determined plume tip will arrive in off-post zone A at 0849 and zone J at 0905	2
0845	PBA	On-post sirens & TARs activated -- Evacuate Arsenal area	5
0845	PBA	Off-post sirens and TARs activated by Army -- Normal Shelter in Zones A and J	5
0845	PBA	Lock and Dam #5 notified by TAR --: Evacuate Arsenal area and take Normal Shelter in Zones A and J	3
0845	PBA	Affected post population learned what protective action to take	5
0845	PBA	First D2-Puff™ plume plot broadcasted to off-post 24-hour warning points	2
0846	ADEM	ADEM received PAR via CSEPP hotline and plume data	2

Time	Jurisdiction	Activities	Outcome
0846	ARK	24-hour Warning Point received CSEPP hotline notification of CAI	2
0846	CLE	24-hour Warning Point received CSEPP hotline notification of CAI	2
0846	DAL	24-hour Warning Point received CSEPP hotline notification of CAI	2
0846	GRA	Grant County received PAR via CSEPP hotline and plume data	2
0846	JEF	Jefferson County received PAR via CSEPP hotline and plume data	2
0846	LIN	24-hour Warning Point received CSEPP hotline notification of CAI	2
0846	LON	24-hour Warning Point received CSEPP hotline notification of CAI	2
0846	PBA	Off-post 24-hour warning points notified of initial CENL, agent type, wind direction, and PARs	2
0846	PRA	24-hour Warning Point received CSEPP hotline notification of CAI	2
0846	PUL	24-hour Warning Point received CSEPP hotline notification of CAI	2
0846	SAL	24-hour Warning Point received CSEPP hotline notification of CAI	2
0848	ARK	EOC received notification of CAI from county Warning Point	2
0848	JEF	PBA PAR accepted as PAD	3
0848	JEF	EOC activated – Message out to all agencies	3
0849	ADEM	Contacted CSEPP counties via telephone	3
0849	CLE	EOC activated	3
0849	CLE	EOC received notification of CAI from county Warning Point	2
0849	PRA	EOC received notification of CAI from county Warning Point	2
0849	PUL	EOC received notification of CAI from county Warning Point	2
0850	ADEM	ADEM activated call-down processes	3
0850	GRA	EOC activated	3
0850	JRMC	STARTEX	
0850	LON	EOC received notification of CAI from county Warning Point	2
0850	PBA	Senior Army official dispatched PAO to JIC	7
0850	PBA	PAO contacted CMA PAO	7
0850	PRA	EOC activated	3
0850	SAL	EOC received notification of CAI from County Warning Point	2
0850	SAL	EOC activated	3
0851	LON	EOC activated	3
0851	PUL	EOC activated/operational	3
0852	ARK	EOC activated	3
0852	DAL	EOC received notification of CAI from county Warning Point via fax	2
0852	GRA	PBA PAR accepted as PAD	3
0852	JEF	Declared county State of Emergency	3
0852	LIN	EOC received notification of CAI from county Warning Point	2
0853	DAL	EOC activated	3
0853	JEF	FAA and Union Pacific Railroad notified via telephone	5
0854	JEF	Jefferson County's 911 Center ordered the establishment of automatic TCPs and PPPs	3
0855	JEF	EOC operational	3
0855	JEF	Sirens and TARs reactivated in all affected on- and off-post zones, with voice message	5

Time	Jurisdiction	Activities	Outcome
0855	LIN	RACES arrived at EOC	
0856	LON	EOC operational	3
0857	DAL	EOC operational	3
0857	PUL	St Vincent's Infirmary: received notification of PBA incident	6
0858	PBA	HQDA (AOC) notified	2
0900	ADEM	EOC activated	3
0900	JEF	JIC activated	3
0900	LON	Declaration of county State of Emergency	3
0900	PBA	Health Clinic staff notified off-post medical facilities concerning possible transport of injured workers	6
0900	PRA	EOC operational	3
0901	PBA	NCTR notified by phone -- Evacuate Arsenal area and take Normal Shelter in Zones A and J	2
0903	LIN	EOC activated, started call-down	3
0903	LIN	Security established at EOC	3
0903	PBA	Health Clinic staff arranged for off-post ambulance services	6
0903	PBA	AMC Safety Office is notified by message left on answering machine	2
0903	PBA	Army Commander's representative notified CMA	2
0904	SMH	STARTEX	
0904	SMH	SMH received notification of an accident at the PBA via fire department pagers	6
0905	GRA	EOC operational	3
0906	JEF	PAD issued through EAS	3
0907	JEF	Sirens and TARs reactivated in all affected on- and off-post zones, with voice message	5
0908	PBA	EOC fully operational (all key positions staffed)	3
0909	DAL	Declared county State of Emergency	3
0909	JIC	Army PAO arrived at JIC	7
0910	ARK	Declared county State of Emergency	3
0910	GRA	Declared county State of Emergency	
0910	PBA	Decision to broadcast update off-post PARs based on AEGL-1	2
0910	SAL	TCP was operational	3
0912	ARK	EOC was operational	3
0913	LIN	Health Dept. representatives arrived at EOC	3
0914	GRA	Sirens and TARs re-activated in all affected on- and off-post zones, with voice message	5
0914	JEF	New PAD may be issued – "correction to AEGL 1 - no action required"	3
0914	LIN	EOC was operational	3
0915	CLE	EOC was operational	3
0915	JRMC	First patient (off-post) arrived at JRMC	6
0915	PBA	Fire fighters and medical personnel arrived at FCP	4
0916	PBA	NRC notified	2
0917	JEF	TCPs were operational	5

Time	Jurisdiction	Activities	Outcome
0919	JEF	Sirens and TARs re-activated in all affected on- and off-post zones, with voice message (should “fail” Jefferson should call Grant to activate sirens) – called Freddie Winston at Grant Co. to activate their sirens	5
0920	PBA	Decided to correct preceding off-post PARs to reestablish recommendation to shelter in Zones A and J	
0920	PRA	Declared county State of Emergency	3
0921	PBA	First Army news release was distributed (<i>received by mock media</i>)	7
0922	ADEM	EOC was operational	3
0924	SAL	EOC was operational	3
0925	PBA	SRF requested	3
0926	GRA	Sirens and TARs re-activated in all affected on- and off-post zones, with voice message	5
0927	ADEM	Requested that Governor declare a State of Emergency	3
0928	JRMC	First patient (off-post) through decontamination	6
0929	JIC	State PIO arrived at JIC	7
0932	ADEM	Governor approved emergency declaration (oral)	3
1025		Written approval	
0934	JEF	County PIO arrived at JIC	7
0935	LIN	Declared county State of Emergency	3
0938	GRA	Sirens and TARs re-activated in all affected on- and off-post zones, with voice message (simulated)	5
0940	JIC	JIC operational	7
0940	JIC	News release #1 disseminated	7
0940	JIC	JIC activation sufficient to interact with media	7
0940	JIC	JIC activation sufficient to interact with public	7
0940	JIC	JIC was fully operational	7
0940	PBA	First JIC news release was distributed (<i>received by mock media</i>)	7
0945	SAL	Declared county State of Emergency	3
0947	PBA	Off-post EOCs notified of updated CENL and PAR to end shelter in Zone A	2
0948	SAL	Decon site was operational	5
0950	GRA	Sirens and TARs re-activated in all affected on- and off-post zones, with voice message (simulated)	5
0952	PBA	Initial decision about activating a Federal Response Center was made	3
0953	PUL	St. Vincent Infirmary Medical Center received patients (off-post)	6
0954	PUL	St. Vincent Infirmary: first patient (off-post) into decontamination	6
0959	CLE	Declared county State of Emergency	3
1000	JRMC	Last patient exited decontamination	6
1000	PBA	Hotline established support by an operational RTAP	4
1000	PBA	MPDS became operational	5
1002	GRA	Sirens and TARs re-activated in all affected on- and off-post zones, with voice message (simulated)	5
1012	SMH	Patient # 1 (off-post) received at SMH	6
1017	ARK	Stuttgart Regional Medical Center received patients (off-post)	6

Time	Jurisdiction	Activities	Outcome
1026	SMH	Patient # 1 (off-post) sent through (simulated) ambulatory decontamination	6
1035	PBA	EOD deployed from FCP to accident site	4
1040	PUL	St. Vincent Infirmary: last patient completed decontamination	6
1042	PBA	EOD arrived at accident site	
1055	ARK	Stuttgart Regional Medical Center ended play	6
1115	PBA	Initial report of ground truth received in the EOC	4
1115	PUL	St. Vincent Infirmary Medical Center terminated play	6
1116	SMH	SMH terminated play	6
1122	PBA	EOD assessment was considered by Senior Army official	2
1131	PBA	First NOK telephonic and/or face-to-face notification completed	3
1131	PBA	Updated report of ground truth was received in the EOC	4
1132	PBA	Off-post EOCs notified of update CENL to Post Only Emergency based on no mines exploding	2
1136	PBA	Decontamination Team arrived at accident site	4
1150	JEF	Jefferson Regional Medical Center terminated play	6
1150	PBA	The hazard was mitigated. Mines stored in igloo and decontaminant were put on some visible wetted surfaces by EOD. Additional decontamination was done by Decontamination Team.	4
1155	LIN	EOC stood down	
1230	JIC	First News Conference began	7
1230	JIC	Joint (Army/County/State/Red Cross) news conference began	7
1255	JIC	Joint (Army/ County/State/Red Cross) news conference ended	7
1324	PBA	ENDEX	

SECTION 2. COMMUNITY ANALYSIS

Emergency Response Outcome 1 – Prevention and Preparedness

This outcome encompasses all tasks associated with actions taken to prevent, prepare for, or reduce the impact or consequences of a Chemical Accident/Incident (CAI), including but not limited to ensuring daily information exchange; maintaining coordinated emergency plans; participating in a continuous exercise program; conducting ongoing training; maintaining an active public outreach and education program; and verifying Emergency Operations Center (EOC) equipment readiness.

Each jurisdiction in the Arkansas Chemical Stockpile Emergency Preparedness Program (CSEPP) community receives the daily work plan from the Pine Bluff Arsenal (PBA). This work plan provides the Maximum Credible Event (MCE) and Protective Action Recommendation (PAR) for the activities taking place that day. From this work plan, the counties can make Protective Action Decision (PAD) if necessary.

An active joint exercise program is in place that meets CSEPP guidance. The CSEPP jurisdictions also participate with PBA in quarterly Chemical Accident/Incident Response and Assistance (CAIRA) exercises.

Up-to-date emergency operations plans are in place in all jurisdictions. Several counties have utilized the synchronization matrix as a planning tool. The use of National Incident Management System (NIMS) terminology has not yet been incorporated in all the jurisdictional plans. Active training programs exist both on-and off-post for responders and emergency operations staff.

Procedures are in place in each jurisdiction and at PBA to routinely test the operational readiness of emergency operations centers EOCs.

All the jurisdictions participate in the public outreach program. Preparedness materials are distributed at community events. Arkansas Emergency Preparedness Calendars are mailed to the residents in the Immediate Response Zone (IRZ) and also are distributed at local events in the CSEPP jurisdictions.

Emergency Response Outcome 2 - Emergency Assessment

This outcome includes all tasks associated with identifying the hazard, classifying and providing notifications of the hazard and appropriate PARs to offsite agencies, and coordinating and conducting monitoring and sampling operations to further specify the hazard.

PBA hazard analysts assessed the seriousness of the CAI, made an initial estimate of the CAI's impact, and produced an initial and subsequent hazard assessments and predictions. Hazard area plots showed risk areas and a predicted hazard envelope; identified populations at risk; and

provided protective action options and information on projected plume behavior. The Initial Response Force Commander (IRFC) decided the initial PAR for off post and announced the recommendation for implementation. Federal, state, and local notification requirements were fulfilled. Reports submitted to headquarters were complete, comprehensive, and on time.

Off-post EOCs and 24-hour warning points received notification of a Level IV Community Emergency via the hotline and WebPuff™ at 0846. The notification from PBA occurred within prescribed time limits. All warning points accurately recorded incident information, including the PAR of ‘Normal Shelter’ for Zones A and J. Where appropriate, the 24-hour warning points accurately relayed notification of the incident to key leadership and emergency operations centers. All follow-on notifications from the warning points were completed within five minutes of receiving the initial notification. Arkansas Department of Emergency Management (ADEM) conducted a verification hotline call at 0850. Additionally, ADEM transmitted copies of the notification form and downwind hazard plots via fax to the CSEPP counties. Emergency management staffs, in conjunction with appropriate elected officials, determined necessary initial response actions.

At 0909, the off-post jurisdictions received a second PAR from PBA that added six zones to the “normal shelter” list. Because this recommendation did not reflect accumulated information, the off-post jurisdictions requested that PBA clarify the PAR. A corrected PAR was issued within 10 minutes, indicating “No Action” for all zones. The affected jurisdictions appropriately waited for clarification of the subsequent PAR before making a change to their PAD. This clarification was not provided. Real-Time Analytical Platforms (RTAPs) from PBA were requested to provide monitoring at schools that were sheltering in Jefferson County. The RTAPs were dispatched and later provided monitoring data that allowed the PAR for Jefferson County to be downgraded to “No Actions.” At 1131, the off-post jurisdictions received a change to the Chemical Event Notification Level (CENL), downgrading the event to Level II Limited Area Emergency, and changes to the accident description.

PBA monitoring and sampling equipment was operational and ready for deployment when needed. Reliable communication was established between field teams and hazard analysts. Monitoring and sampling teams were deployed to requested locations to collect information that accurately characterized the hazard area; they collected authentic, credible information about chemical agent hazards.

The WebPuff™ model provided consistent plume data to the off-post jurisdictions. The hotline was used effectively to coordinate between and among PBA, the IRZ counties, and ADEM

Emergency Response Outcome 3 - Emergency Management

This outcome includes all top-level decision making, coordination and direction and control of the response, including mobilization and operation of the EOC, and coordination at the management level of any activities involving logistical support.

All jurisdictions and participating departments and agencies that comprise the Pine Bluff CSEPP Community, including the Arsenal, quickly activated and mobilized staff to the EOCs and field

locations after receiving notification of a chemical accident at the Arsenal. Staff notification and recall procedures were followed. Emergency managers made appropriate decisions as to the level of staff required and the effect on their jurisdictions. Periodic briefings were conducted for EOC staff, and in the case of Saline County, this was noted as a marked improvement over last year's exercise demonstration. The new EOC in Grant County was cited as a Strength; capabilities that previously were lacking are now available. The operation was noted as much improved, compliant with NIMS, and that it facilitated effective Unified Command.

The Pine Bluff Chemical Activity (PBCA) Commander, fulfilling the role of Federal On-Scene Coordinator, discharged Department of Defense obligations under the National Contingency Plan (NCP).

All 10 of the local jurisdictions made declarations of emergency, and transmitted them to ADEM in either oral or written form. The Governor signed the State's declaration of a State of Emergency within an hour of receiving the request. Resource coordination among ADEM and the Counties was effective. Communications via e-mail did not present any issues as they had in the past. There were instances of counties requesting information and clarification of messages from ADEM, and although not all were instantly resolved, resolution was achieved within an acceptable time.

In a number of the counties, PADs were made although the effect to the jurisdiction was limited or non-existent. The concept of making local declarations, PADs (requiring the population to "do nothing") and broadcasting an EAS message (which does not do much more than telling the population to "stay tuned") for non-affected jurisdictions is questionable. It is recommended that the jurisdictions evaluate the effectiveness of following this practice.

Within the affected counties, the EOC staff provided the proper technical assistance and support to permit the authorities to make appropriate PADs and protect the public. Where needed, the appropriate counties established, or simulated Traffic Control Points (TCP), Access Control Points (ACP), Personnel Processing Points (PPP), decontamination sites, reception centers, and shelters. Where it wasn't required to actually establish one of these facilities, the counties discussed procedures that they would follow to effectively fulfill requirements. All jurisdictions either acted on or discussed requirements for protecting special populations, such as school children, nursing homes, and day care centers.

Emergency Response Outcome 4 - CAI Hazard Mitigation

This outcome, conducted exclusively on-post, includes all response tasks at the accident scene to contain the source and limit the magnitude of the hazard's impact. It includes all tasks at the accident scene except for those specifically associated with the *Victim Care* outcome.

Conditions at the accident scene were recorded. Prompt and accurate reports were made from the accident scene. Records that documented the decisions and operations associated with the response were developed and preserved. The security cordon was established and enforced.

Activities of responders were coordinated. Additional equipment and staff were requested from higher headquarters for response operations. Migration of the release was confined. The agent release was terminated at its source, and contaminated materials were contained. Planning for disposal was underway at the end of the exercise.

Emergency Response Outcome 5 - Protection

This outcome includes all activities related to assuring protection of on- and off-post general and special populations through making appropriate PADs, using sirens and other warning methods, disseminating warning messages, providing access control and security, and providing screening and decontamination.

The Pine Bluff CSEPP community demonstrated the ability to make decisions to protect the residents of their respective communities consistent with the limited threat presented by the scenario. Following some initial confusion about affected zones (summarized in Emergency Response Outcome 2), just one off-post jurisdiction was required to formally produce a PAD.

Activation of the primary indoor and outdoor warning systems produced both positive and troubling results. The planned interruption of Jefferson County's ability to sound sirens and Tone Alert Radios (TARs) resulted in a seamless transfer of this responsibility to Grant County and back to Jefferson County. But the TAR control system does not allow independent reactivation among the participating jurisdictions, resulting in a four-minute delay in the Arsenal's capability to reactivate the system at the first 12-minute interval (see the observation below). Alternate or supplementary alert and notification was not a component of the scenario.

The Arsenal sent revised PARs by D2-Puff™. The Arsenal did not make oral notification of the revised PAR to off-post EOCs. Failure to orally inform the off-post officials of the Exit Shelter-In-Place time recommendation may have lead to less than optimum PADs by off-post officials. Protective action messages were prepared consistent with play in off-post jurisdictions, and coordination among county, State, and PBA was accomplished. Both actual and simulated TCPs were established, and protective actions for schools, day care centers and special populations were extensively "talked through" in communities that were unaffected by the plume. RTAPs were dispatched to provide monitoring at schools that were sheltered in Jefferson County.

Because the Pine Bluff CSEPP community was extensively involved in the establishment and operation of reception centers and shelters in response to Hurricanes Katrina and Rita, limited play resulted in just two (simulated) reception centers, but most jurisdictions took the opportunity to discuss evacuee support and logistics in free play within their EOCs.

Observation

Subject: Reactivation of On-Post Indoor and Outdoor Warning Systems

Discussion: The EOC staff initially activated the on-post and off-post indoor and outdoor warning systems with appropriate notification messages for affected zones

within the required notification time. The first reactivation of these on-post warning systems should have been made 12 minutes after the initial activation, but the reactivation could not be accomplished on time because the system will not allow reactivation by one jurisdiction until it completes an activation begun by another jurisdiction. This four-minute delay resulted in the Arsenal's first reactivation at 16 minutes after the initial notification instead of the required 12 minutes. This difference was due to the design of the warning. The reactivation of on-post warning devices was delayed and the possibility exists for this type of delay to occur again until the system is upgraded to allow simultaneous activations and broadcasts by multiple jurisdictions.

Recommendation: The community should explore options to modify the warning system so simultaneous activations can be accomplished independent of the activity of another jurisdiction.

Emergency Response Outcome 6 - Victim Care

This outcome includes all activities related to treating on-post contaminated casualties at the accident site and installation; screening, treating, and decontaminating off-post victims; victim transport; treatment at off-post medical facilities; patient tracking; and handling and tracking disposition of human remains.

In general, victims on post were saved from additional trauma, injury, and agent exposure. However, in one case, an injured person was not given assistance in putting a mask on, and his wound was subsequently made worse by a medical responder. In another case, a patient was dropped while on a gurney. Patients were stabilized, but transport to the on-post medical facility was delayed by a malfunctioning gate, putting patients at greater risk. The IRFC was kept informed about the location and status of all patients. Their identities were confirmed; their medical needs were taken care of on-post, and accurate information was made available to patients' next-of-kin. No patient's identity or information was mistakenly released in reports or news releases. Effective decontamination took place on-post, confirming patients free from contamination. However, inadequate patient treatment materials were available during the patient decontamination process. The Health Clinic was generally prepared for the arrival and treatment of patients. On-post patients were taken to the Health Clinic in time to prevent death or permanent incapacitation. At the Health Clinic, patients were given appropriate medical treatment consistent with their injuries, illnesses, and extent of exposure. Following stabilization, patients were promptly transferred off-post for medical treatment.

Off-post field decontamination objectives were demonstrated in three jurisdictions. In all locations, appropriate use was made of the Incident Command System (ICS) and multiple agencies were successfully integrated into the operations. While difficulties with electric power generation capacity were encountered in two cases, responders used other sources of power or altered operations to accomplish the mission.

In addition, the community included threat-based scenarios in their activities to meet other Department of Homeland Security (DHS) requirements without detracting from the successful demonstration of the CSEPP objectives.

Performance of victim care and decontamination activities across the off-post community remains inconsistent, with significant issues remaining in the hospital community. Four hospitals participated in this exercise. At several locations, shortfalls in the number of appropriately trained personnel available prevented full demonstration of screening and decontamination activities. In addition, many patients were decontaminated at hospitals after receiving field or on post decontamination. Inconsistency in the agreed-upon decontamination banding system in this community not only causes a delay in patient care, but also is potentially dangerous to both patients and responders and needlessly consumes limited resources.

Personnel at most hospitals were unable to distinguish between conventional injury or illness and chemical agent symptomology. Arriving patients were not triaged appropriately. The vast majority of patients presenting to hospitals received decontamination and the administration of Mark I Antidote Kits regardless of their presenting signs, symptoms and medical history. Although exercise artificially might hamper health care practitioners' perceptions, hospitals must clearly assess, triage, and treat patients according to their presentation. Lack of effective triage and this practice of decontaminating patients needlessly is dangerous to both patients and responders.

The issue of the availability of Mark I Antidote Kits at hospitals remains unresolved as only two hospitals house Mark I Antidote Kits. In order to treat nerve agent casualties in an appropriate and timely manner, Mark I Antidote Kits must be readily available at the hospital. Storing them at off-site locations and dispersing them on an as-needed basis is grossly inadequate.

The community as a whole has successfully addressed Finding PBC05.6.1 regarding the failure of the community to use the incident command system. Field activities, hospitals, and EOCs used the system. Where activity was not sufficient to fully develop an ICS structure, demonstrated training activity and plan modification over the previous year showed active adoption of NIMS and the ICS.

Observation

Subject: Patient Marking Bands

Discussion: The community's agreed-upon banding system for indicating that patients from the field have been decontaminated is not being implemented successfully. In addition, the use of this system does not extend to patients from the Arsenal. Hospitals tend to re-decontaminate patients regardless of whether they are banded to indicate decontamination or whether the Arsenal's physician has contacted the hospital to confirm decontamination, and in the latter case, the information may not make it to the decontamination line workers in a timely fashion. Off-post field activities do not consistently band patients appropriately.

Recommendation: The community as a whole, including Pine Bluff Arsenal, needs to conduct joint discussions, review plans, and train on a marking system for victims that have been decontaminated in the field. The off-post community has a system in place that, if implemented correctly, will reduce or eliminate duplicative decontamination.

Since the off-post community's system provides a rapid and effective visual indication to the first receiver that the patient is decontaminated, Pine Bluff Arsenal should adopt it to supplement the existing system of physician-to-physician notification. This also would ensure that the patient does not receive duplicative decontamination if the notification to the physician does not relay quickly to the first receivers or if the patients are evacuated by helicopter and arrive very quickly. The community as a whole, including Pine Bluff Arsenal, also should endeavor to extend their agreements to all hazards so that patients exposed to other hazardous materials and decontaminated in the field can be treated with equal effectiveness.

Effective use of this system is dependent on trust between all responders, receivers, and agencies. Agency and hospital management need to work together to ensure that a climate of trust is built and maintained through joint training, planning, and discussion.

Observation

Subject: Mark I Antidote Kits

Discussion: Only two of the hospitals in the PBA Community possess Mark I Antidote Kits. Some healthcare facilities had stores of bulk atropine and pralidoxime chloride antidote, but this form is comparatively difficult to administer rapidly, particularly if severely symptomatic patients are in a pre-decontamination status. The window for effective Mark I Antidote Kit use in treating severely affected patients is extremely brief. Rapid administration of bulk 2-PAM Chloride is a specific challenge because a multi-step procedure is needed to reconstitute this medication from its dry powder form. Maximum benefit from Mark I Antidote Kits is achieved if it is available to be administered to patients within minutes. In a hospital context, this treatment parameter can not be met unless the kits are stored in the hospital.

Recommendation: To be of benefit to CSEPP hospital patients, these kits must be stored in CSEPP hospitals. Healthcare facility personnel must be trained in proper Mark I Antidote Kit administration and indications for use.

Observation

Subject: Responder/Receiver Training

Discussion: In hospitals across the community, deficiencies in training were evident. Deficiencies included a lack of ability to distinguish between conventional injury or illness and chemical agent symptomology and the ability to appropriately treat agent exposure. The hospitals did not triage patients for decontamination or treatments adequately. The above deficiencies in some cases might have resulted in increases in patient morbidity and mortality.

Recommendation: Increase the training opportunities available for hospital personnel. Ensure that periodic training concentrates on signs and symptoms of agent exposure and the appropriate associated treatment, and training in an effective triage system. Ensure that training opportunities are widely publicized and managers at all hospitals with a role in response to a CSEPP event should emphasize the importance of training to their employees and actively seek out training opportunities

Status of Previous FRCAs

Previous Findings Number: PBC05.6.1

Subject: ICS Use

Resolved: Yes.

Emergency Response Outcome 7 – Emergency Public Information

This outcome includes all tasks related to the dissemination of public health and safety information following the initial alert and notification. It includes the dissemination of information to the media from individual EOCs and the Joint Information Center (JIC), the staffing and logistics to operate a JIC, the operation of a Joint Information System (JIS), and the dissemination of information to the public from the JIC.

The media was informed about the response by the various jurisdictions to reinforce public health and safety. Information was passed to the JIC from the jurisdictions EOCs on a regular basis.

The JIC was made operational quickly and functioned continuously with trained staff, space, equipment, and other capabilities as needed to fully support the mission. The JIS, which keeps communication flowing among all partners in the CSEPP community inside the JIC and out, works well with information being shared through ADEM to the Protective Action Zone (PAZ) counties. Hospitals need to be brought into the JIS as at least one hospital released erroneous information that brought confusion to the mock media and community. Had that information been coordinated through the JIS before dissemination, the confusion could have been avoided. Ties of communication need to be established to bring the hospitals into the JIS. Doing so will put all in the CSEPP community on the same sheet of music.

Emergency Response Outcome 8 – Remediation and Recovery

This outcome includes all tasks associated with the immediate post-emergency period, out to about 48-hours after the event. They are intended to dovetail with the existing response-phase evaluations in outcomes 1-7.

Although End-of-Exercise (ENDEX) was declared before remediation and recovery activities considered in this Emergency Response Outcome (ERO) could begin in earnest, a number of activities were initiated. Shortly after noon, the PBA Civilian Executive Assistant (CEA) indicated that they were moving toward recovery. RTAP readings continued to be negative as monitoring teams moved toward the igloo and reduced the footprint of potential contamination, and consideration was given to coordinating with the Arkansas Department of Environmental Quality to initiate joint monitoring and sampling to define the contaminated area. Jefferson County officials considered similar actions. While ENDEX terminated further remediation and recovery operations, a number of activities would likely go forward. Access to restricted areas would be maintained; the accident would be investigated; recovery phase PADs would be made, and the media and public would be kept informed.

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SECTION 3. JURISDICTIONAL ANALYSES

PINE BLUFF ARSENAL (PBA)

Emergency Response Outcome 1 – Prevention and Preparedness

An active joint on-post and off-post exercise program is in place that meets Chemical Stockpile Emergency Preparedness Program (CSEPP) guidance. Certification of personnel and knowledge of position-specific requirements is up to date. The Emergency Operations Center (EOC) equipment is checked on a routine basis.

Coordinated on- and off-post emergency plans are in place and synchronized. However, the on-post emergency response plan does not use National Response Plan (NRP) terminology.

Prevention and Preparedness were not evaluated in detail on the installation. These elements are routinely examined in detail by higher headquarters' inspections, reviews and assistance visits.

Observation

Subject: EOC Automation Capabilities

Discussion: The EOC staff experienced significant delays logging onto EOC computers and exchanging e-mail with the Joint Information Center (JIC). Approximately 20 minutes was required for individual staff members to log onto EOC computers. It took approximately 15 minutes for the Public Affairs Office (PAO) news release e-mail to reach the JIC.

Computer logon should not take more than a minute or two. E-mail should be received soon after transmission.

The computer logon problems appeared to occur when more than one person attempted to log on simultaneously because each logon required the installation of each user's profile before continuing to log on the next user. The e-mail problems might have resulted from system overload or insufficient server capacity.

The effect of the computer logon problem was delay of the staff becoming fully functional. This delayed time-sensitive communications both on and off post at a critical time. The e-mail transmission problem resulted in delay of news releases arriving at the JIC and of their release to the public. This also could delay receipt of e-mails by yet other recipients.

Reference: DA PAM 50-6, "Chemical Accident or Incident Response and Assistance (CAIRA) Operations," March 26, 2003, page 30, paragraph 4-4. Planning Guidance for the Chemical Stockpile Emergency Preparedness Program, May 17, 1996, page 68, Section 8.3.1 Communications Planning Checklist, 8.3-9

Recommendation: Pine Bluff Arsenal (PBA) should determine load limitations on servers and provide additional capacity as necessary to allow the system to function more efficiently. Determine how to allow logons to be accomplished in a more timely manner and implement as necessary. The computer system in the EOC should be capable of supporting the full activation of the EOC and high usage levels during a CAIRA effort or other emergency. It is also recommended that design for the new EOC consider the communications needs of the automation systems and the electrical power needs of all current and, to the extent possible, future equipment in the EOC. Because future communications and electrical demands are very difficult to foresee, it may be desirable to place empty conduits in the new EOC to accommodate the unforeseen needs.

Emergency Response Outcome 2 – Emergency Assessment

Hazard analysts assessed the reports about the accident, estimated the impact, and produced initial and subsequent hazard assessments and predictions. Hazard area plots showed risk areas and a predicted hazard envelope; identified populations at risk; and provided protective action options and information on projected plume behavior. The initial hazard assessments were timely and appropriate to the circumstances as reported -- persons in the Arsenal Depot Area were to evacuate and persons in off-post zones A and J were to take “Normal Shelter.” The Arsenal took action to evacuate the Depot Area almost immediately, activated off-post alert and notification systems simultaneously, and made recommendations about zones A and J to off-post jurisdictions in a D2-Puff™ run at 0845 and a hotline call at 0846. Updates to the initial off-post PAR were not always correct or timely, as discussed in this section.

Reports submitted to higher headquarters were generally complete, comprehensive, and timely. Monitoring equipment was operational and ready for deployment when needed. Reliable communication was established between field teams and hazard analysts. Monitoring teams were deployed to collect information to help characterize the hazard area.

Observation

Subject: Emergency Notification Form

Discussion: Standing Operating Procedure (SOP) OP50-003, “Pine Bluff Chemical Activity (PBCA), Operations Center, SOP,” December 29, 2005, indicates that “action” PARs, i.e., “Normal Shelter” or “Evacuate”, should be issued for zones affected only by AEGL-2 or AEGL-3. The SOP says AEGL-1 zones should be instructed to “go inside and standby for further information.” The Emergency Notification Form only has a line for “No Action Required” rather than “go inside and standby for further information.”

Reference: CSEPP Policy Paper 20 (revised), February 24, 2003; “Planning Guidance for the CSEPP”, May 17, 1996, Paragraph 7

Recommendation: The SOP and Notification Form should be revised as necessary to align procedures with policy on the use of hazard analysis products and dissemination of PARs.

Observation

Subject: Protective Action Recommendation (PARs) to End Shelter-in-Place (SIP)

Discussion: The initial D2-Puff™ event run summary report provided recommended Exit SIP times for both affected off-post zones A and J. However, these times were never confirmed by a hotline call before the times recommended in the electronic report. The Exit Shelter PAR for Zone A was first issued via the hotline at 0947, even though the computer model recommended an Exit Shelter time of 0914. An Exit Shelter PAR for Zone J, calculated to be at 0954, was never confirmed via the hotline.

Arsenal operating procedures do not require specific verbal confirmation of recommended Exit SIP to off-post jurisdictions. The Arsenal procedure assumes that the model run serves as the official PAR for ending SIP, and that off-post officials will base their decision to end SIP on this information.

References: OP50-003, “PBCA, Operations Center, SOP,” December 29, 2005, page B-I-1, paragraph 4, Procedures, sections f & h; PBCA FORM 50-38, “CSEPP Hotline Emergency Notification,” June 1, 2005

Recommendation: Exit Shelter PARs or other revised or updated PARs should be provided to off-post officials via the hotline and with the same urgency as initial PARs. This requirement and a procedure for implementation should be incorporated into the CAIRA Plan and SOP# OP-50-38. The Initial Response Force Commander (IRFC) should consult with the off-post jurisdiction’s leadership, if required, and approve the recommended Exit SIP prior to verbal broadcast to the off-post jurisdiction. This will assure appropriate decision-making process has taken place within all jurisdictions and that the recommendation(s) and decision(s) to Exit SIP are made at the appropriate levels of leadership.

Finding Requiring Corrective Action PBA06.2.1

Subject: Hazard Analysis

Discussion: After the initial alert and notifications were broadcast, the Operations Center (OC) Leader requested a display of the AEGL-1 area and the list of zones impacted by AEGL-1 from the hazard analyst. However, after reporting the AEGL-1 affected zones, the hazard analyst did not reset the D2-Puff™ to generate update PARs based on AEGL-2. Thus, subsequent PARs were generated based on the AEGL-1 threshold, and inappropriate PARs for “Normal Shelter” for Zones K, BC, L, I, AI, and B were made at 0910 over the hotline. After off-post communities called for a clarification, the OC Leader reissued the PARs for these zones; however, this correction contained errors, and the next D2-Puff™ run at 0939 also contained incorrect PARs.

The hazard analyst referred to the Maximum AEGL column in the PAR/PAD window to distinguish AEGL-1 affected zones from AEGL-2 and -3 affected zones. However, the hazard analyst should have used the graphical display of the AEGL-2 risk envelope, or

the associated classification within the PAR/ Protective Action Decision (PAD) tool, to separate AEGL-1 affected zones from AEGL-2 and -3 zones. The Maximum AEGL column corresponds to the AEGL isopleth rather than the AEGL risk envelope, and the latter is the basis for distinguishing AEGL affected zones.

During a discussion of the affected zones, the hazard analysis team switched between “Concentration” and “AEGL” views at an intermediate time step (step 5 of 11) on the display screen at the front of the EOC. The AEGLs represent total exposure and should only be associated with the anticipated end of the event. The intermediate time step resulted in an underestimation of the hazard. As a consequence, there was confusion regarding the resulting discrepancies in affected zones.

The graphical displays sent off-post and published in WebPuff™ for the initial and first revised hazard assessments encompassed relatively large areas. These should have been sized appropriately to adequately identify affected zones. The display sent off post for the second revised hazard assessment displayed too small an area, the depot only. Sizing the display appropriately prior to sending runs off post would have created a more-legible map of affected zones for the off-post community.

The hazard analyst generated PARs in D2-Puff™ based upon the AEGL-1 rather than the AEGL-2. The hazard analyst used “Generate” PARs with each new model run, rather than using “Set PARs/PADs to Those Last Sent.” When “Generate” is selected in the D2-Puff™ PAR/PAD Tool, the PARs are calculated assuming no previous PARs have been made for affected zones. The “Do Nothing” PAR indicates that the tail has exited the zone before the PAR is generated. The EOC hazard analyst discussed issuing “Do Nothing” PARs when protective actions did not change from previous recommendations; however, PARs should be carried forward when there is no change.

Overall the sequence of PARs for the off-post zones did not represent a logical progression of protective actions for each zone. Zones K, BC, L, AI, I, and B should never have received a PAR of “Normal Shelter” because they were affected only at the AEGL-1 threshold. Zones A and J should have received “Normal Shelter” PARs until the exit shelter time. At that time, the zones should have been considered for an “Exit Shelter” PAR, or continued sheltering based on current circumstances (e.g., lack of information regarding hazard containment).

See the following table for a display of PARs issued during the exercise.

Zone	D2 0845	HL 0846	HL 0910	HL 0920	D2 0939	HL 0947	D2 1002	D2 1130	HL 1131	D2 1247
Depot	Evacuate	Evacuate	Evacuate	Evacuate	Evacuate	Evacuate	Evacuate	Evacuate	Evacuate	Evacuate
A	Normal Shelter	Normal Shelter	Normal Shelter	No Action	Do Nothing	Exit Shelter	Do Nothing			
J	Normal Shelter	Normal Shelter	Normal Shelter	No Action	Normal Shelter	Normal Shelter	Normal Shelter			
K			Normal Shelter	No Action	Normal Shelter	No Action	Do Nothing			
BC			Normal Shelter	No Action	Normal Shelter	No Action	Do Nothing			
L			Normal Shelter	No Action	Normal Shelter	No Action	Do Nothing			
I			Normal Shelter	No Action	Normal Shelter	No Action	Do Nothing			
AI			Normal Shelter	No Action	Normal Shelter		Do Nothing			
B			Normal Shelter	No Action	Normal Shelter		Do Nothing			

NOTES:

- 1) "D2" = D2-Puff™ run sent to off-post jurisdictions; "HL" = Hotline call.
- 2) Calculated exit shelter times from all D2-Puff™ runs: A = 0914; J = 0954; these were not implemented at an appropriate time.

References: OP50-003, "Pine Bluff Chemical Activity, Operations Center, Standing Operating Procedures," December 29, 2005, page B-I-4, paragraph 4; "Planning Guidance for the CSEPP", May 17, 1996, Paragraph 6.2.3

Recommendation: The hazard analysis group (hazard analysts, OC Leader, Operations Officer, etc.) should be given additional training and practice with the D2-Puff™ and WebPuff™ software, and practice the identification of zones at various AEGL thresholds, the display of various model features and products, and the process for deciding PARs.

Emergency Response Outcome 3 – Emergency Management

The EOC achieved full operational status quickly and maintained this level of effort for the duration of the response. Direction and control of response activities were established. Activities of responders were properly coordinated to ensure maximum efficiency of response operations. Command and control for the response was established; appropriate response assets were mobilized. The IRFC, serving as the Federal On-Scene Coordinator (FOSC), discharged

Department of Defense (DoD) obligations under the National Contingency Plan (NCP). Appropriate installation support was provided for protecting the on-post population. Sufficient equipment, vehicles, and supplies were available to control and mitigate the release initially, and to perform related support tasks. Evacuated or relocated workers were permitted to re-enter on-post areas that did not present a chemical agent hazard in order to support mitigation activities with all available installation capabilities. The next-of-kin of injured persons were notified and their immediate needs were supported. Information about the victims or their next-of-kin was not reported or released unless authorized.

Strength

Subject: Response Effectiveness

Discussion: The overall response effort was rapid and efficient. Quick assessment of the need for augmentation was made and the results were promptly communicated to higher headquarters. Planning for conducting 24-hour operations was done early; logistical planning to support incoming augmentation teams was thorough and done far in advance of their arrival. The rapid follow-on response to the accident site resulted in quick deployment of the Explosive Ordnance Disposal (EOD) team and effective decontamination of the area. Deployment of survey and monitoring teams as well as planning to conduct remedial operations was more efficient than that normally seen during CSEPP exercises.

Emergency Response Outcome 4 – CAI Hazard Mitigation

Prompt and reasonably accurate reports were generated immediately at the accident site and transmitted to the installation EOC. Subsequently, a security cordon was established around the accident site and enforced. However, security personnel were too close to the site, entered into potentially contaminated areas, and were put at unnecessary risk. Conditions at the accident scene were photographed by the EOD team when they entered the site. These photographs were then transported back to the EOC. Records that documented the decisions and operations associated with the response were generated and archived in the EOC. Activities of responders were properly coordinated to ensure maximum efficiency of response operations at both the EOC and the Forward Command Post. Emergency responders were properly prepared and ready for deployment. However, there were delays entering and leaving the accident area because of a security gate malfunction. Additional equipment and staff perceived to be needed were immediately requested through proper channels to augment response operations. Because of the overall quick action of crisis managers and the responding force, migration of the assumed agent release was limited to the smallest possible area. The release was terminated at its source by the EOD team and decontamination crews. Contaminated materials were safely returned to the storage structure and planning had begun for its disposal in a safe and legal manner.

Observation

Subject: Positioning of Guards

Discussion: Initial deployment of security personnel at the accident site was within the initial restricted area around the site. The initial restricted distance was 450 meters, but security personnel near the scene were about 150 feet from the accident site. A perimeter patrolman (who was dressed in PPE that might not have met all safety requirements) conducted routine security patrols through the predicted agent plume. The patrolman should have established an over-watch position of that portion of the fence line in the hazard area without driving through it. Security personnel responding to the accident site should have established over-watch positions at least 450 meters from the accident site. Failure to adequately establish and communicate the physical boundaries of the hazard areas to security personnel resulted in those personnel being placed at potential risk.

Reference: “PBA CAIRA Plan”, December 15, 2004, page Q-1, paragraph 3a, and page B-2, paragraph 2c(4); DA PAM 50-6, “Chemical CAIRA Operations”, March 26, 2003, page 35, paragraph 5-4b, and page 63, paragraph 13-2; DA PAM 385-61, “Toxic Chemical Agent Safety Standards”, March 27, 2002, page 12, paragraph 4-1a, and page 13, paragraph 4-2, and page 22, paragraph 6-2b

Recommendation: PBA crisis managers should ensure that security personnel are not needlessly exposed to potential chemical and explosive hazards. The fragmentation distances and chemical hazard areas for the munitions involved in movement or daily work plans should be provided to security managers to allow them to establish initial deployment strategies based on the munition involved.

Observation

Subject: Protective Clothing and Equipment

Discussion: Security personnel responding to the accident both inside and outside of the chemical limited area were dressed in level C-2 PPE, which consisted of a protective mask, hood, gloves, boots and apron. Level C-2 was required by security operating procedures. It was highly questionable whether this level of dress was appropriate for the potential hazards that might exist in the area of the accident site. Additionally, during increased levels of heat, level C-2 would degrade security personnel mission capability and sustainability. Security personnel should be deployed in a manner that would not require level C-2. They should have it available only in the event they need to enter a contaminated area for life-saving purposes (provided the protection factors of the PPE are not exceeded).

Reference: DA PAM 385-61, “Toxic Chemical Agent Safety Standards”, March 27, 2002, page 12, paragraph 4-1a, and page 13, paragraph 4-2, and page 15, paragraph 4-3, and page 22, paragraph 6-2b; DA Pam 50-6, “CAIRA Operations”, March 26, 2003, page 26, paragraph 3-5c(6)

Recommendation: PBA Security should develop and document initial deployment strategies that prevent security personnel from deploying to areas that would require the issue and wearing of inappropriate types or levels of PPE. Consideration should be given

to the potential for areas contaminated by aerosol deposition if the event involves dissemination of a persistent chemical agent by a mode that generates an aerosol.

Observation

Subject: Pine Bluff Chemical Disposal Facility (PBCDF) Support to PBA Chemical Accident Response

Discussion: Despite the identified need for augmentation by four five-person toxic chemical teams, there was no discussion in the EOC regarding using trained personnel from the PBCDF. Local plans and agreements support using these assets to help the overall installation response. Doing so also is consistent with Army guidelines for having an integrated response effort. However, local planning and exercising had not matured to detail how PBCDF forces might be integrated into a non-demilitarization accident. Not using all of the available local response capabilities could delay hazard mitigation and containment efforts, causing sustained or increased risk to personnel both on- and off-post.

Reference: DA PAM 50-6, "CAIRA Operations", March 26, 2003, page 110, paragraph J-2b(10); "Pine Bluff Arsenal CAIRA Plan", page U-7, paragraph 4d; "Support Agreement between PBA and PBCDF", W41G26-97276-601, 1 October 2005, Attachment 2, page 8, Command and Support, Receiver paragraph (9)

Recommendation: Using these assets might fulfill a need hours before augmenters from outside the installation could arrive. PBA, PBCA, and PBCDF emergency response managers and planners should coordinate how PBCDF emergency response assets will be rapidly integrated to assist in responding to a significant non-demilitarization accident at PBA. Written procedures should be documented in the PBA CAIRA Plan and assessed during joint exercises.

Emergency Response Outcome 5 – Protection

The hazard analyst advised the Arsenal Emergency Operations Center staff on PARs and PADs and updates over time. The initial advice was timely and accurate, the updates were less so. See the discussion in Emergency Response Outcome 2. Similarly, the EOC staff use of this advice was problematical. It was noteworthy that the critical initial alert and notification of the population directly affected (the Depot Area on-post and zones A and J off-post) was accomplished expeditiously. Staffed Traffic Control Points (TCPs) and unstaffed barricades were in place on-post in time to expedite prompt and orderly evacuation. Access to hazardous areas was prevented, and the post population that was at risk was evacuated safely. Sufficient transport vehicles and drivers were available to support this activity. Contaminated protective clothing, tools, and equipment were controlled to protect persons in clean areas from contamination.

Emergency Response Outcome 6 – Victim Care

In general, victims on post were saved from additional trauma, injury, and agent exposure. However in one case, an injured person was not assisted in putting a mask on, and subsequently his wound was made worse by the actions of a medical responder. In another case, a patient was dropped while on a gurney. Patients were stabilized, but transport to the on-post medical facility was delayed by a malfunctioning security gate. This put patients at greater risk. The IRFC was kept informed about the location and status of all patients. Their identities were confirmed, medical needs generally taken care of on-post, and accurate information made available to patients' next-of-kin. No patient's identity or information was mistakenly released in reports or news releases. Effective decontamination took place on-post, confirming patients free from contamination. Patients on-post were taken to the Health Clinic in time to prevent death or permanent incapacitation. The Health Clinic was generally prepared for the arrival and treatment of patients. Adequate patient treatment materials were not available during the patient decontamination process at the Health Clinic. Patients at the Health Clinic were given appropriate medical treatment consistent with their injuries, illnesses, and extent of exposure. Following stabilization, patients were promptly transferred off-post for medical treatment.

Observation

Subject: Safe Movement of Gurneys

Discussion: While moving Victim #2 from the PBA ambulance into the PBA Health Clinic, the undercarriage of the gurney failed to lock and the patient was dropped three feet to the ground. The gurney undercarriage should have been confirmed as locked before ambulance crew members released the patient platform. The style of gurney used in this case is notorious for this malfunction. Consequently, many states prohibit their use.

Recommendation: Consider replacing this style of gurney. If the choice is to retain them, then:

1. Train personnel to ensure the locking of the undercarriage mechanism by pushing it forward, by foot, from the foot end until it clicks or resists movement.
2. Install a catch hook in the ambulance which will act to hold the head end of the gurney on the ambulance until released. This would keep the head up even if a collapse occurs.

Observation

Subject: Victim Care During Confirmation of Decontamination

Discussion: After thorough decontamination was completed at the PBA Health Clinic, a patient's nerve agent symptoms worsened in the decontamination verification area while awaiting completion of Real-Time Analytical Platform (RTAP) procedures (for confirmation of decontamination adequacy). However, Mark I Antidote Kits were not available. Consequently, the attending medic used those in his own mask carrier,

depriving him of injectors for his own use, if needed. While not an appropriate solution, because the medic had the necessary supplies for this situation in his personal carrier, there was no adverse outcome to the patient. A sharps container was not available. In the absence of a quicker confirmation process, tools and medications to ensure continued care for bleeding and airway care must be available in the decontamination verification area. Planning for ongoing medical care must consider that RTAP procedures take not less than 15 minutes.

Reference: DA Pam 50-6, “CAIRA Operations”, March 26, 2003, page 6-5b, and page 42, paragraph 6-5c(1)

Recommendation: Unless methods that shorten the monitoring time are able to be adopted, care must be brought to the victim. Atropine, intraveneous fluids and airway management equipment must be available in the decontamination verification area. A sharps container should be placed in the area to collect needles used there.

Observation

Subject: Stabilization of Impaled Object

Discussion: Victim #2 received a neck wound from an impaled section of metal banding. The work crew evacuated the victim, provided adequate Buddy Aid, and promptly stabilized the impaled object. Upon arrival of medical personnel at the CRA-1 triage was initiated. After initial assessment, Medic One began a secondary assessment during which he placed his hand on the impaled object causing deeper penetration and shifting. This action caused the victim to experience breathing difficulty and increased bleeding. At this point, Medic One removed the stabilization dressing, visually inspected the wound and dressed the wound with an occlusive dressing but without stabilizing the impaled object. Following replacing the dressing, Medic One should have stabilized the impaled object. These actions increased injury and provided opportunity for further injury to the victim.

Reference: DA Pam 50-6, “CAIRA Operations”, March 26, 2003, page 38, paragraph 6-3; “US Department of Transportation, National Highway Traffic Safety Administration, National Standard Curriculum, Emergency Medical Technician Basic”, page 5-399, paragraph d.3

Recommendation: Avoid placing any pressure on or movement of an impaled object except in the event of airway obstruction. Then, the object should be removed, or at the minimum, repositioned. Always ensure a dressing is applied that will adequately stabilize the object.

Observation

Subject: Emergency Vehicle Entry and Egress

Discussion: Thirty-two minutes elapsed from event initiation to the initial emergency responder arriving at contamination reduction area (CRA) -1. Of this, eight minutes involved unnecessary delay of the Fire Department at Gate #4 because of difficulty getting access to the gate from Security. The first patient-loaded ambulance was delayed 14 minutes from leaving the area because of a mechanical malfunction of the same gate. There were no provisions in the applicable Security Operations Procedure that addressed entry of emergency vehicles at alternative entry control points in the event security does not arrive or is unable to open existing gates in a timely manner. Emergency responder vehicles, to include Fire Department and ambulances, should not be delayed access to casualties as a result of security procedures or problems. Ambulances carrying casualties to medical care should not be delayed egress from the accident area as a result of gate malfunctions (which has been repeatedly identified in the past). The combined 22-minute delay in patient evacuation greatly increased critical times to a medical treatment facility for the most seriously injured patients. That time should not exceed a total of one hour to ensure adequate treatment for patients.

Reference: DA Pam 50-6, "CAIRA Operations", March 26, 2003, page 42, paragraph 6-5b(2)(h); "PBA CAIRA Plan", December 15, 2004, page J-2, paragraph 4; Security Operations Procedure SS-190-060, "Emergency Entrance and Exit Procedure for Pine Bluff Chemical Agent Disposal Facility and the Bond Road Exclusion Area", January 15, 2006

Recommendation: Repair or replace Gate #4 at the bond road exclusion area.

Emergency Response Outcome 7 – Emergency Public Information

The media was informed about the event and the Army response to reinforce public health and safety. Higher Headquarter Public Affairs staff was informed but not always updated as promptly as the headquarters staff expected. The PAO in the Arsenal EOC and the assistant missed information from time to time but were able to update each other and provide current information to the JIC at regular intervals.

Observation

Subject: Public Affairs Information Flow

Discussion: Local policy allows the PAO in the EOC to communicate directly with media by phone. The PAO's workstation in the EOC is located with other staff in an environment where nearby conversations and EOC updates can be overheard by persons over the phone lines. Additionally, conversation that might require privacy or discretion can occasionally be overheard.

Recommendation: A more private area for PAO activities would enhance efficiency. A location close to the EOC so the PAO can keep abreast of the information flow, and with direct access to the status board, would greatly improve the ability of PAOs to communicate timely, accurate and concise information to the JIC and media. When the

new EOC is built, a separate room for the Public Affairs office would solve this problem. The room needs at least four phone lines, one a direct line to the JIC, and direct access to the EOC status board.

Emergency Response Outcome 8 – Remediation and Recovery

Although End-of-Exercise (ENDEX) was declared before remediation and recovery activities considered in this Emergency Response Outcome (ERO) could begin in earnest, a number of activities were initiated. At 1314, the Civilian Executive Assistant (CEA) indicated that they were moving toward recovery. RTAP readings continued to be negative as monitoring teams moved toward the igloo and reduced the footprint of potential contamination. Consideration was given to coordinating with the Arkansas Department of Environmental Quality (ADEQ) to initiate joint monitoring and sampling to define the contaminated area. While ENDEX terminated further remediation and recovery operations, a number of activities would likely go forward. Access to restricted areas would be maintained, the accident would be investigated, recovery phase PADs would be made, and the media and public would be kept informed.

JEFFERSON COUNTY (JEF)

Emergency Response Outcome 1 – Prevention and Preparedness

Jefferson County receives a daily work plan from the Pine Bluff Arsenal (PBA) and reviews this plan with staff at a comprehensive morning briefing. The briefing includes meteorological data and a review of prioritized list of activities for the day. Decision-making is supported by a variety of information and automation resources including expert D2-Puff™ hazard analysts. These hazard analysts routinely produce both Maximum Credible Event (MCE) and worst-case plume projections from the daily work plans. The county gathers information, considers the implications of each decision, and creates their Protective Action Decision (PAD) in the minimum time.

Jefferson County’s Emergency Operations Plan (EOP) Annex L, 2004 Revision, is thorough and complete. The plan incorporates the use of the latest technology and is promulgated. An exceptional exercise program integrates quarterly Chemical Accident/Incident Response and Assistance (CAIRA) drills into the Chemical Stockpile Emergency Preparedness Program (CSEPP) planning.

Emergency response training and other required training courses are documented in training files. Jefferson County has identified more than 1,200 people inside the county requiring training in classes such as Chemical Awareness, Act Fast and Personal Protective Equipment (PPE). Jefferson County actively seeks out additional training. Jefferson County also has worked effectively in the implementation of National Incident Management System (NIMS) and ensuring that staff and responders take the Incident Command System (ICS) series of courses.

Jefferson County actively participates in public outreach and education programs and produces high-quality educational products for the public. The County has annually had a booth at the local fair and small business expo to promote CSEPP public awareness.

Emergency Response Outcome 2 – Emergency Assessment

The Jefferson County Metropolitan Emergency Communications Association (MECA) Call Center received a call from the PBA that a Level IV Community Emergency had occurred involving leaking M23 VX-filled landmines and an explosion. Wind direction was from 56 degrees northeast at four miles per hour and listed the Acute Exposure Guideline Levels (AEGs): AEG-3 was 2.3 miles and AEG-2 was 3.9 miles. This event occurred at 0842 on the PBA and the hotline call was received at 0846.

Based on AEG 2 and 3, the Protective Action Recommendation (PAR) received from PBA was to “normal shelter” Zones A and J. At 0909, a PAR was received from PBA for Zones K, BC, L, A, J, I, AI, and B to “normal shelter” based on AEG-1. Then at 0914, there was a correction to the PAR which changed it to “No Action” for all zones. By this time, Jefferson County had already released an Emergency Alert System (EAS) message to the community to shelter (stay

inside and turn off the A/C) which included overpressurization of Moody Elementary School, and White Hall High School. The County Judge then requested PBA to provide Real-Time Analytical Platform (RTAP) monitoring at both schools and decided not to rescind the PAD until the monitoring results were returned. At 1000, PBA reported negative RTAP readings at the schools,

Emergency Response Outcome 3 – Emergency Management

At 0846, before the initial notification was even completed, the Office of Emergency Management (OEM) Coordinator and staff immediately started their internal call down of the Emergency Operations Center (EOC) staff. The EOC was declared operational at 0855. The County Judge requested that the Joint Information Center (JIC) be activated at 0900. The Deputy County Coordinator, at the request of the Judge, notified the White Hall High School and Moody Elementary School in Whitehall at 0905 to overpressurize as a precautionary measure. The establishment of a Reception Center at the Jefferson County Convention Center is automatic and was simulated.

At 0852, the Judge declared and signed a state of emergency declaration for Jefferson County. At 0853, he requested that the Arkansas Department of Emergency Management (ADEM) shut down all rail, air and water traffic for the hazard area. The initial briefing was conducted by the Judge at 0904. During this briefing, the Judge relayed the initial accident report and PAR from PBA to normal shelter Zones A and J, and all other PBA response actions conducted until that time.

The Jefferson County EOP identifies a number of predetermined Traffic Control Points (TCPs) in support of selected evacuation routes and decontamination areas. In accordance with the Extent of Play Agreement, most of the predesignated TCPs were simulated including the diversion of traffic at the junction of I-530 and Highway 270. At 0854, EOC staff members representing the Jefferson County Sheriffs Office (SO) and Pine Bluff Police Department (PD) directed officers to establish a TCP at 7th and Sycamore.

The Policy Group gave additional status briefings for the EOC staff at 0928, 0950, 1010, 1029, 1046, 1109, and 1212. During the 1010 briefing it was reported that:

- the Arsenal had four injured persons, status unknown;
- Jefferson Regional Medical Center (JMRC) decontaminated 23 people from PBA;
- Zones A and J were advised to remain sheltered until the RTAP readings were received; and
- the Pine Bluff Fire Department (FD) on 7th had decontaminated two people for exposure to an as yet undetermined chemical substance

At the 1029, briefing the following information was released:

- Zones A and J were cleared to end shelter based on negative RTAP readings'
- The Governor requested a Presidential Declaration

-
- 24 people from PBA were decontaminated at JRMC

No other considerations were made for special populations other than the precautionary overpressurization of Moody Elementary and White Hall High School. Protection procedures for special needs populations and day care centers are outlined in the Jefferson County EOP. Health & Medical Coordinator updates were received and logged.

The EOC was equipped with telephones, radios, and computers configured in a “T” with the Policy Group sitting at the head of the “T” and the operations group sitting down both sides of the tables at the base. There were four computers down one side of the EOC where the hazard analyst could analyze the plume and the automation tech could use their reverse 911 system to make redundant notifications to the public. D2 Puff™ was steadily monitored and any changes were discussed with the Policy Group. The reverse 911 system was demonstrated; the County made redundant notifications to households in Zones A and J in a timely manner. Radio Amateur Civil Emergency Services (RACES) were set up and operational by 0915 in an adjacent room. There were large, easily read displays of the plume, a map of the county with critical locations detailed, and the situational report. The Situation Report (SITREP) was updated hourly and sent to the ADEM. E-mail was sent out between updates of the SITREP.

All calls were answered by an operator and were transferred to the appropriate party. Calls were referred to the JIC prior to it opening. The Policy Group had a hotline telephone connection to PBA, Grant County and ADEM.

Emergency Response Outcome 4 – CAI Hazard Mitigation

Not Applicable.

Emergency Response Outcome 5 – Protection

The initial PAD was made automatically based on the PAR received from the PBA. At 0854 the Public Information Officer (PIO) at the EOC indicated that an EAS message was sent out in accordance with Jefferson County operating procedures. Two more EAS messages were sent during the emergency.

At 0909, the hotline rang and PBA recommended “normal shelter” for Zones K, BC, L, A, J, I, AI, and B with no explanation provided. Before the Policy Group could question or implement this recommendation, a correction was received at 0914 to change the PAR to “no action required” for the referenced zones. This was confusing to the Policy Group which then called PBA for clarification regarding whether the recommendation to shelter zones A and J had been rescinded. The recommendation was repeated, as stated in the prior message. To err on the side of safety, the County Judge, in coordination with the other policy group members, decided to keep the normal shelter order and requested PBA send RTAPs to monitor Moody Elementary, White Hall High School, and outside of Dexter Gate at Highway 365. It should be noted that ADEM also used the hotline to request PBA clarify their PAR and again the PAR was repeated

with no explanation for the change. To further confuse the situation, at 0947 PBA notified the EOC that no action was required for Zones K, I, BC and L and Zone A should exit shelter. Again at 0952, ADEM was heard on the hotline requesting PBA to clarify the PAR. The PBA liaison arrived at 0957 and interacted with the Policy Group.

Under the direction of the Operations Emergency Manager at the Jefferson County EOC, the sirens and Tone Alert Radios (TARs) were sounded at 0855 for the affected Zones A and J. Sirens are reactivated at 12-minute intervals. The second alert was sounded at 0907 with no change in the protective action message. Because of a (scripted) technical difficulty, the electronic technician was not able to reactivate the sirens and TARs a third time. He followed procedures and requested Grant County to sound the sirens and TARs for Jefferson County. At 1027, the technician was told by the Operations Emergency Manager to inform Grant County to suspend the siren and TARs activation.

Route alerting was simulated. The Jefferson County EOP indicates that residents along Tracy Road would be alerted by means of route alerting.

A simulated reception center located at the Pine Bluff Convention Center was opened at 0930. The Jefferson County EOP outlines procedures for opening and operating the reception center. Organizations identified in the plan that support the operation of the reception center are the Pine Bluff Convention Center Staff, American Red Cross, local health department, Pine Bluff Police, Fire and Street departments.

The American Red Cross (ARC) is tasked under the disaster plan to open and operate shelters. The shelters will be opened at the request of appropriate EOC representatives and will house those persons needing shelter once they have processed through the reception center. At 1000, a simulated shelter opened at the ARC Chapter Headquarters located at the Don W. Reynolds Community Center. Cots were available as well as other shelter supplies.

At 0854, Emergency Operation EOC staff members representing the Jefferson County SO and Pine Bluff PD directed officers to establish a TCP at the intersection of 7th and Sycamore. The TCP was operational at 0917. Two police officers representing Jefferson County SO and Pine Bluff PD were assigned to monitor traffic and be prepared to stop, redirect or restrict traffic if directed. One officer was medically cleared, trained and equipped with PPE. The other officer was not medically cleared. The officers had evacuation maps and other emergency information to distribute to the public. The officers were prepared to reposition if they were threatened by chemical exposure. The officers were adequately trained and prepared to support the event.

Emergency Response Outcome 6 – Victim Care

Jefferson County's Mark I Antidote Kits are issued to responding agencies and medical facilities, with supplemental stock located at the Jefferson County EOC. Pine Bluff FD has 300 kits. A combined inventory of the nerve agent antidote in the county is displayed in the table below.

Chemical Agent Pharmaceutical Inventory			
	Dosage amt	# of	Exp. date
Mark I Antidote Kits		2,480	May 2009

Jefferson County field victim care activities were demonstrated in a threat-based scenario to assist the community with their Office of Domestic Preparedness (ODP) exercise responsibilities. The exercise activities were focused around an organophosphorus pesticide release from a vehicle. The skills demonstrated by Jefferson County responders were the skills required for field victim care response to a chemical stockpile event. ODP equipment was used and maintained in accordance with Standards of Operation.

At 0852 the Pine Bluff Fire Department and an ambulance from EASI were dispatched to a medical emergency at 3216 West 7th Avenue. Upon arrival, the first arriving fire company determined there were two victims contaminated by an unknown substance. The Pine Bluff FD Hazardous Materials (HAZMAT) team and mutual aid units from Whitehall and Wabbaseka were requested for the accident. The Pine Bluff HAZMAT team arrived on the scene at 0915.

At 0916, Incident Command was established, assignments were made, safety zones set, and the site setup began. Orange cones were set up to route traffic through the decontamination zone and to define both the hot and warm zones.

An area was established for the HAZMAT team members to begin dressing out. A two man entry team was established along with a safety backup team. Two decontamination lines were setup and the incoming mutual aid companies were assigned to assist with decontamination. Two three-man teams were used on each decontamination line with backup teams established for relief.

At 1000, the decontamination site was operational and an entry team entered the hot zone to perform rescues and identify the spilled material. Due to the weather conditions wet decontamination was simulated. The spilled product was identified as an organophosphate pesticide, Malathion. The first victim was taken through the decontamination line and prepared for medical treatment at 1012. The second victim was processed through decontamination at 1016. Both victims were transported by ambulance to the hospital. The Safety Officer recorded names and times in and out on the decontamination team members.

The decontamination lines were properly set allowing ingress and egress in a manner that facilitated good traffic flow. Waste water, clothing, and towels were placed to one side of the line to allow for smooth traffic flow.

The ICS was used for this exercise and key personnel were identified using ICS vests. A Safety Officer was appointed as required by federal regulations for hazardous materials response. Mutual aid personnel were effectively integrated into the ICS. The Pine Bluff FD has a personnel accountability system, but this was not used. Use of an accountability system would help to more efficiently manage resources and account for personnel from different agencies. Ideally, all public safety and supporting agencies in the county should use the same

accountability system. Work zones were clearly marked with physical barriers, and access to each work zone was restricted to ensure that only essential personnel entered each area. Proper notifications and updates were made between the IC and the EOC.

The Pine Bluff FD showed expertise and proficiency in the set up and operation of the decontamination site. The department set up two decontamination lines for this exercise.

This scenario meets the Department of Homeland Security's ODP requirements to exercise terrorism preparedness capabilities. Jefferson County emergency responders acted in a rapid and competent manner to mitigate the threat using Kappler Responder liquid splash suits with Self Contained Breathing Apparatus (SCBA) along with air and chemical monitoring equipment.

Observation

Subject: Dressing Area Organization and Resourcing

Discussion: Three areas for responders donning PPE were established; one for designated entry teams and two for personnel tasked to work the decontamination area. While sufficient workers were assigned to each functional team, there were not sufficient personnel to assist those wearing PPE to don their ensembles. PPE donning is an awkward process in the best of circumstances, with some steps such as zipping chemical protective garments and donning outer gloves requiring assistance from others. Workers wearing PPE are also at high risk for heat stress, and their activity prior to starting work should be limited to reduce this potential.

In addition, the donning processes were not managed by team leaders, with each worker donning PPE at their individual pace. The team areas were not coordinated, with each team reporting readiness at a different time. In several cases, steps were missed and ensembles were donned in the wrong order. For example, some workers were already zipped into their ensembles and on air before donning outer gloves. While each situation that occurred was caught and corrected before workers left the dressing area, each contributed to a delay in the donning process.

The dressing areas were not large enough to accommodate all the personnel and equipment assigned, resulting in crowding.

Recommendation: Workers donning PPE should be assisted by other assigned personnel to make the process more efficient and reduce the potential for injury and error. If a dedicated assistant for each worker donning PPE cannot be provided, a minimum of one assistant for every two workers donning PPE is recommended.

PPE donning processes for each team should be managed by a team leader, using a checklist to ensure that each member dons each component of their ensemble simultaneously. This will reduce the potential for missed steps, ensure that each part of the ensemble is donned in the proper order, and provide opportunities for periodic safety

checks. Coordination within and among teams will minimize the amount of time that any team is exposed to the stress of wearing PPE while waiting for another team to be ready.

Dressing areas should be of sufficient size to accommodate all required personnel and equipment and should provide enough space for each member to dress out unhindered.

Observation

Subject: Personnel Vitals

Discussion: The medical personnel failed to perform vitals on the two decontamination teams prior to and after exiting the decontamination line.

Recommendation: The fire department needs to incorporate a checklist that covers all requirements for pre- and post-entry vitals. This will allow for the efficient and accurate documentation of baseline vitals for all responders.

Observation

Subject: Doffing of PPE

Discussion: Doffing of PPE by entry and decontamination team members at the exit of the warm zone lacked proper chronological order. Some team members utilized their inner gloves to remove boots and tape. Workers' SCBA was removed prior to the complete removal of chemical protective suits and regulators were allowed to contact the outside of the suits. Team members did not seem to be cognizant of coming in contact with potentially contaminated items or people.

Recommendation: Doffing procedures for entry team members need improvement. Team members could reduce the potential for cross contamination by doffing their boots with their outer gloves, waiting to remove SCBA until suits have been completely removed, and minimizing overall contact with contaminated objects and other team members.

Additional training and the development of a doffing checklist would also ensure proper doffing procedures.

Status of Previous FRCAs

Previous Finding Number: JEF05.6.1

Subject: Decontamination Procedures Training

Resolved: Yes

Jefferson Regional Medical Center (JRMC)

JRMC is the primary receiving hospital for PBA. The hospital staff and the Highway 15 Volunteer Fire Department (VFD) demonstrated decontamination and treatment of 26 patients. The JRMC and VFD worked seamlessly in staffing decontamination operations. The JRMC Incident Command Center (ICC) communicated effectively both internally and externally.

JRMC is a medical facility with 473 general medical-surgical beds, 38 critical care beds and 13 pediatric beds. The Emergency Department (ED) is a Level III trauma center, made up of 28 beds. It can handle a wide variety of trauma, pediatric and medical emergencies.

JRMC possesses an adequate supply of nerve agent antidote. The pharmacy is open 24-hours a day and provides the ED with Mark I Antidote Kits if a chemical accident occurs at PBA. The pharmacy maintains this stock on a mobile cart for rapid transport to the ED.

Chemical Agent Pharmaceutical Inventory			
	Dosage amt	# of	Exp. date
Atropine	2,250	90	03/08
2-PAM Chloride	276	46	11/09
Mark I Antidote kits	297	-	05/09
Diazepam	180	12	12/06

JRMC recruited several local nursing students to participate as the victims. These victims presented as local community members with various mild to severe medical and surgical conditions, but none with nerve agent exposure signs and symptoms. Based on the real world weather conditions at the time (temperature of 32 F at 0800), the decision was made by the facility CSEPP coordinator to simulate decontamination and not use actual water.

At 0850, JRMC received multiple notifications of an accident involving VX agent at PBA. A call was received by the ED Charge Nurse from officials at PBA, and alerts were heard via the statewide and CSEPP radios that are both monitored in the ED. The ED Charge Nurse then contacted the hospital operator at 0855 and gave instructions to announce a “Code Orange” alert overhead. In addition, the hospital operator told managers to report to the ICC. The Incident Commander gave a briefing and assigned personnel at 0905 to each of the NIMS standard section chief positions. Some of the personnel assigned had never functioned in those positions. At this point hospital lockdown was simulated. JRMC reported that they are able to lock doors at the push of a button. By making them access controlled, they are able to be opened by hospital employee badges only. JRMC’s Employee Health Nurse reports to the Jefferson County EOC whenever there is an event of this nature and acts as the Liaison between the local Emergency Management and the hospital. The Liaison called JRMC at 0910 and gave further information that there was a landmine with VX that exploded. At that time, she reported that certain zones were sheltering in place, but did not report any off-post exposure or patients inbound to JRMC. The administrative team in the ICC began to research the agent to determine what was needed to effectively manage patients. Initially there was some confusion as they were doing an Internet search for “BX” rather than VX. After one of the ICC personnel instructed them on the proper name for the agent, they were able to locate pertinent information. Staff at JRMC quickly compiled data as to numbers of staff currently on hand at the hospital, as well as

beds available and number of beds that could be available with discharge of patients. Staff recall was initiated by the Staffing Office to ascertain numbers of personnel who could report if needed. Inventories were conducted of pharmaceutical supplies, nerve agent antidote, ventilators, food and water, and other essential medical supplies.

After notification of a “Code Orange”, the decontamination team arrived at a pre-determined location in a timely manner, with carts pre-loaded and organized with PPE. A large orange cooler was located on the cart, but there was no evidence that it, or any other fluids, were used to rehydrate the JRMC decontamination team staff. Simultaneous donning of PPE and pre-entry medical screening occurred. The pre-entry medical screening was performed by one support staff member. Of note, the pre-entry screener allowed the decontamination team members to have their blood pressures taken with thick clothing on. This resulted in erroneous readings that would have precluded their ability to wear PPE for that day. The pre-entry screener was then unaware of the abnormal blood pressure reading without being prompted to review it. Additionally, there was no area for the team to sit or rest while donning their PPE in the designated “changing” area. Methodical organization and individual labeling of PPE on the carts greatly facilitated a timely distribution of supplies. The strategic location of the donning area permitted the decontamination team members to exit into the cold zone of the external decontamination site. However, there was no hospital Safety Officer located outside monitoring stay times in PPE.

Also at this time, the hospital maintenance personnel retrieved the decontamination equipment trailer and began to position it for deployment. Eight hospital employees began to remove equipment and set it up. The well designed storage methodology of “last-in/first-off” allowed for fast set up. The scene management equipment in the form of cones and banner tape was placed to define the decontamination area. Carts loaded with various heavy items were placed adjacent to their final location in the decontamination zone. This deployment allowed personnel to set up quickly with minimal potential for injury from attempting to manipulate heavy items quickly. The inflatable tents were placed and blowers began the air injection process. The tents quickly inflated and stabilized. Associated pieces of equipment were laid out to complete the decontamination facility.

At this point the Highway 15 VFD arrived with the decontamination equipment trailer and quickly deployed to setup location. Their mission is primarily as a backup decontamination capability to the hospital’s primary capability. Throughout the decontamination setup process, the architectural features of the hospital were utilized to enhance scene management and allow for positive control of patient flow. Security interfaced smoothly with the decontamination team and quickly gained control of the access points to the ED and its driveway.

The first patient, a psychosomatic patient who did not exhibit any signs or symptoms of nerve agent exposure, arrived at 0915 and was shortly thereafter followed by a group of five additional patients. None of these patients exhibited signs and symptoms of nerve agent exposure, but they all received Mark I Antidote Kits. While a security guard assisted in directing these patients to the decontamination tent, a separate patient slipped into the ED unnoticed. An additional patient drove up at the edge of the security perimeter and expressed concern to a security guard about hearing the sirens from post. The driver exited the car, approached the security guard and then

collapsed. The driver lay on the ground approximately four to five minutes before any medical personnel approached to determine the level of responsiveness. Then, the patient was directed to walk unassisted to the decontamination tent. Each patient who entered the decontamination tent received decontamination and at least one Mark I Antidote Kit, regardless of signs and symptoms exhibited. There was one accident of a decontamination team member who tripped and fell face down, unnoticed by his teammates. One patient became disoriented in the decontamination tent and then got lost. At some point during the exercise, the orange bands placed on the patients' wrists signifying that they had received Mark I Antidote Kits were removed as they exited the decontamination tent. As patients entered the hospital, they were triaged as either "green" and directed to a holding area; or "yellow or red" and then transferred to the ED for further treatment.

The non-ambulatory patients began to arrive from the PBA at 1056. The first patient from the PBA had a reported VX exposure and had received four Mark I Antidote Kits prior to arrival at JRMC. The patient was re-decontaminated and due to some real-world discomfort, the facility's Emergency Preparedness Coordinator decided to triage as "black" so that he could move around and try to get comfortable. The next PBA patient arrived with an impaled object in the neck. The patient was re-decontaminated, taken into the ED and evaluated. There was no query made about low level monitoring done on-post to verify his contamination status. After the patient was stabilized a call was made to the operating room and the ED physician discussed the issues that he would make the surgeon aware of with regard to the potential for contamination of this patient's wound. The third patient arrived at the hospital and was re-decontaminated. Following decontamination, this patient was transferred to the ED and was then evaluated by the physician. Because of the clinical acuity of the patient (a simulated leg injury with a cold and pulseless foot), the patient was not appropriately evaluated and treated in a timely manner.

The ED did not initially appear prepared or willing to participate in the exercise by treating and determining the disposition of the patients categorized as yellow or red, but as the exercise progressed, the ED staff became more engaged. The scope of the hospital's response appeared to be limited to the ED and the ICC. Once inside the ED, patients were evaluated by the nurse, then the physician and their disposition determined. All treatment and courses of action taken by ED staff were simulated. The psychosomatic patients were identified as such and dispositioned appropriately. The asthmatic patient was initially administered additional atropine while in the ED and only after further deterioration did she receive appropriate treatment.

The patients triaged as green were sent to a separate holding area. While in this area, the hospital's Pastoral Care members along and a nurse visited with the patients to provide support. However, there were some patients who had health concerns that were not addressed (such as viral illnesses, bronchitis, etc).

In general, JRMC has a remarkable capacity to handle community emergencies, in addition to any PBA emergencies generated as a result of a chemical accident. Despite the issues identified in years past, as well as those identified this year, some of the hospital staff was very enthusiastic and obviously wanted to perform well. However due to over simulation, it was difficult to properly evaluate the hospital's capabilities to manage and care for patients as they entered into the JRMC patient care chain.

Strength

Subject: Organization of Response Equipment and Setup

Discussion: The organization, storage, deployment, and setup of PPE and decontamination equipment were well maintained and utilized. All pieces of equipment were organized onto rolling carts whether stored within the decontamination trailer or the hospital storage area. This method of storage facilitated a more organized response and went above the average methodology.

The PPE cart was organized by individual decontamination team member. Each member had his/her own labeled shelf with the proper sized PPE and the individual's equipment stored in a quickly usable fashion. This contributed to quick donning of PPE and readiness of the decontamination team.

All of the decontamination equipment was contained within a trailer that is kept off site. The equipment was systematically organized on rolling carts inside the trailer to facilitate site setup. The trailer was designed with a large rear ramp that allowed the removal of the carts to position equipment in approximate locations related to sequence of setup. These design features contributed to an efficient and effective set up operation.

Observation

Subject: General Safety During Decontamination

Discussion: General safety of the exercise environment is paramount for worker/player protection. The following posed significant risk to decontamination team members.

Placement of Decontamination Trailer: The close proximity of the decontamination trailer created a fall or trip hazard by having the door down and within a few feet of the decontamination tent entrance. This affected those entering and exiting the tent, those working around the outside of the tent and those who were transporting patients into the hospital.

Properly Securing Straps, Ropes and Electrical Cords: The ropes and cords attached to different decontamination equipment were not removed or secured at the scene and were left in piles on the floor creating an unsafe environment for those working around and inside the tent. The placement of electrical cords created a trip and fall hazard.

Set-Up of Decontamination Tent: The "hot" and "cold" zones were not clearly marked and allowed hospital personnel, decontamination personnel and security officers to walk between and around zones without being properly decontaminated. The flaps on the end of the tents were not secured, creating a trip and fall hazard for all personnel.

Improper Use of PPE: The straps from the Powered Air-Purifying Respirators (PAPR) hanging around the legs of personnel created potential safety concerns. Fogged masks created an unsafe environment for personnel navigating the decontamination area.

Recommendation: Placement of Decontamination Trailer: To increase the safety of the decontamination area, move the trailer further away from the decontamination tent so the open door does not create a trip and fall hazard, or close the door during a decontamination event.

Properly Securing Straps, Ropes and Electrical Cords: Secure all straps, ropes and electrical cords so that trip and fall hazards are minimized. Additionally, mark multiple cord areas so that personnel and decontamination team members avoid walking through those locations.

Set-Up of Decontamination Tent: Have clearly defined “hot” and “cold” zones marked so that everyone working the decontamination event is aware of where they should and should not go. Educate members of the ED as to the procedures for entering and exiting a hot zone. Also, restrict the outside movement of personnel from one zone to the other. Ensure that the ends of the tents lying on the ground are secured throughout the decontamination event.

Improper use of PPE: In the interest of the personal safety of those working the decontamination event, all straps hanging from the PAPRs should be secured. Team members should wait until their masks are cleared and the PAPR is functioning properly before leaving the dressing area.

Observation

Subject: Staff Training

Discussion: When the ICC was opened, command staff had difficulty obtaining information initially about VX agent because they were looking for information about “BX”.

There were some disagreements among the Highway 15 VFD personnel and the JRMC staff with regard to processes in place to screen staff and subsequently organize them into teams for decontamination.

Recommendation: Provide the ICC staff with an awareness training session on the chemical agents stockpiled at PBA in addition to the other hazards in their community.

The staff at JRMC should discuss integration of their policies and procedures with the Highway 15 VFD if they plan to work together in the future.

Observation

Subject: Communications with Outside Entities

Discussion: The Marketing Department at JRMC handled phone calls from concerned citizens looking to their community hospital for direction on what to do concerning the event. The recommendations given by the staff at JRMC were very general and did not provide specific feedback and direction for these concerns.

Recommendation: CSEPP training for PIO to coordinate with the JIC and participate in the Joint Information System (JIS).

Observation

Subject: Decontamination of Patients

Discussion: JRMC's policy is to decontaminate every patient who arrives to their facility during an event involving possible contamination regardless of whether or not they received decontamination prior to their arrival at JRMC. JRMC received patients from Emergency Medical Service (EMS) units from a field decontamination location. Paramedics who transported those two patients reported that they had been decontaminated, but the patients did not have any blue wristbands. Furthermore, PBA transport units reported that the patients brought to JRMC had been decontaminated at the Arsenal, but they did not have blue wristbands.

Recommendation: It is essential that all personnel within the response community, including PBA, utilize a consistent banding system to ensure proper recognition of patients who have been decontaminated. Furthermore, JRMC, local fire department personnel, and PBA officials must discuss their policies and procedures with respect to decontamination procedures. A level of confidence in each others' capabilities could be established through joint training and exercise on a more frequent basis. In some instances, the delay of patient admission into the hospital by re-decontaminating them could lead to a poor outcome for the patients involved.

Observation

Subject: ED Medical Care

Discussion: Once patients arrived in the ED, the medical care was simulated and did not generally meet the standard of care or standard of practice. The patients were not seen in a timely manner and vital signs were not recorded on any patients who presented to the ED. The asthmatic patient received additional atropine in the ED, after notifying the ED staff that the previous administrations of Mark I Antidote Kits had made her condition worse. A patient with an Ectopic pregnancy was transferred to the Labor and Delivery unit without any examination done in the ED, or without any reassessment of her condition prior to her transfer. A third patient who presented with a cold and pulseless

foot (based on the report given at presentation to the ED) due to a fracture, did not have the distal pulses assessed in the foot and did not receive treatment to address the condition.

Recommendation: The ED staff should exercise with as much realism as possible. The staff should also review the effects of nerve agent antidote medications on pre-existing medical conditions.

Finding Requiring Corrective Action JEF06.6.2

Subject: Inappropriate Chemical Casualty and Medical Management - JRMC

Discussion: All patients were triaged, treated with antidote, and decontaminated without reference to signs, symptoms and medical history. With the exception of three patients received from the Arsenal, no patient simulated actual chemical agent exposure. In spite of this fact, all patients received agent antidote in the form of a Mark-I Antidote Kits. Some patients received more than one injector. The majority of the patients were psychosomatic and had received no actual exposure to agent. Some of these patients had flu like symptoms and relayed this information to the triage nurse. In spite of this information and presentation, all patients received nerve agent antidote. Most of the exercise patients in this category were simply anxious. Several patients were simulating medical conditions including chest pain, asthma attack, and ectopic pregnancy. Each of these patients portrayed their symptoms properly but were treated for nerve agent exposure with a Mark-I Antidote Kit. Several patients exhibited trauma, including one moulaged patient with an obvious head laceration and simulated broken arm, with the mechanism of injury identified as a skateboard accident. Despite the traumatic injury presentation, the patient was treated with nerve agent antidote. Every patient received nerve agent antidote whether they needed it or not.

Reference: “CSEPP Planning Guidance”, 8.11, 8.11.1; CSEPP Planning Guidance Appendix (1-8); SLG 101 Chapter 5 attachment G (5-G-1-4 G-15); SLG 101 Chapter 6 Attachment G 6-C-12; CSEPP Planning Guidance Appendix I (IV)(10); Arkansas Hospital Provider Course: “Train the Trainer”. Chemical Stockpile Emergency Preparedness Program: Office of the Surgeon General and US Army Program Manager for Chemical Demilitarization: August 1997; “ACT FAST” Agent Characteristics and Toxicology First Aid and Special Treatment: Chemical Stockpile Emergency Preparedness Program: US Department of the ARMY and Federal Emergency Management Agency; Managing Hazardous Materials Incidents, Volume II, Hospital Emergency Departments: US Department of Human Services, Public Health Service, Centers for Disease Control, Agency for Toxic Substance and Disease Registry: January 1992; Medical Management Guidelines for Acute Chemical Exposures: US Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, Agency for Toxic Substance and Disease Registry: August, 1992

Recommendation: A clear triage protocol needs to be in place, and reviewed, that screens for signs and symptoms of nerve agent intoxication in a differential diagnosis

format. If those signs and symptoms do not exist, treatment with antidote should not be initiated. Furthermore, the “Nerve Agent Antidote Administration Protocol” should be utilized to determine appropriate patient populations to receive nerve agent antidote, and appropriate dosages.

Finding Requiring Corrective Action JEF06.6.3

Subject: PPE Pre-/Post-Entry Medical Screening - JRMC

Discussion: There was an inconsistent personnel tracking system for the decontamination team. The JRMC Worker Protection Program Policy states that the hospital will be responsible for several worker protection issues. The following issues need to be addressed to provide JRMC personnel with the most comprehensive emergency response plan possible:

It is important to have a responsible party present at all times during the donning and doffing process to document what time the PPE was initially donned, the time and length of rest periods; the time decontamination was performed; the time PPE was doffed; the type of response activities performed; any likely exposure encountered; any medical problems or incidents noted; assessment of blood pressure taken according to the manufacturers recommendations for the equipment used and general medical well being before donning and after donning PPE.

A pre-entry medical screening parameter exceeded the established limits on a decontamination team member. Exceeding this parameter would have precluded this decontamination team member from dressing out. It is important to note that for the safety of the decontamination team, the pre-established medical screening criteria must be followed to ensure the protection of the team participants or others who are subject to medical screening criteria.

JRMC personnel did not utilize the “buddy system” that was written into their Worker Protection Plan. Not adhering to pre-established policy increases the potential of slips, trips and fall hazards commonly associated with suited PPE related injuries.

Reference: Jefferson Regional Medical Center Emergency Worker Protection Program from the CSEPP, III B2C(4), III B2C(8)(f), III B2D(6)(c)

Recommendation: It would be helpful to have a clearly defined Safety Officer for JRMC personnel during a mass casualty incident within the Incident Command structure of the decontamination process. The Safety Officer would be responsible for implementing the steps outlined in the Worker Protection Program. Having a clear path to the decontamination tent between the pre and post-entry screening area would help eliminate confusion for all personnel.

Adherence to established pre-entry medical screening parameters increases the likelihood that personnel safety will be insured. It is recommended that all baseline vital signs are

taken according to the manufacturers' recommendations for the equipment used. It is recommended that a scale be used to accurately record pre and post-entry weights to ensure that they do not exceed the maximum loss of up to 3 percent body weight. It is also recommended that chairs or benches be utilized in a pre- and post-entry area for personnel to prepare for and recover from a decontamination event.

It would be helpful to have clearly defined steps in defining the use of the buddy system during a decontamination event. By adhering to a pre-determined buddy system, most slips, trips and fall hazards common for PPE personnel could be eliminated, along with any other safety issues before, during and after a decontamination event.

Status of Previous FRCAs

Previous Finding Number: JRM05.6.1 New Finding Number JEF.06.6.1

Subject: Lack of PPE Use in Contaminated Area -JRMC

Resolved: No

Emergency Response Outcome 7 – Emergency Public Information

Three EAS messages were prepared by the Jefferson County PIO prior to departing to the JIC. The first EAS was called in to the Mock Media SIMCELL at 0854 and then faxed to and received by the JIC at 0859. This EAS message apprised the community that Zones A and J were at risk due to the chemical accident at the PBA, and instructed the community to shelter-in-place. The second and third EAS messages were called in to the Mock Media SIMCELL at 0918 and 0927. However, a hard copy follow-up to the telephone notification did not occur.

A three-paged pre-scripted EAS message was used. Specific paragraphs within these three pages were crossed out or specific words crossed out using heavy black ink. In one case a paragraph was highlighted with black ink but not crossed out. This paragraph dealt with Zone K which is in Grant County. Marking out unnecessary paragraphs in a pre-scripted message leads to difficult reading and confusion. The PIO and EOC management are aware that this could cause confusion and plan to modify the pre-scripted message and insert a copy into their EOP.

The Jefferson County PIO does not seek approval from the County Judge, OEM Coordinator or other personnel prior to releasing pre-scripted EAS messages. According to Jefferson County EOP, a designation of Level IV Community Emergency automatically includes using the PAR from the PBA as the PAD and the use of pre-scripted EAS message.

The PIO departed from the Jefferson County EOC at approximately 0930 and arrived at the JIC at 0934. Prior to his departure, a liaison arrived to resume PIO activities at the EOC.

After deploying to the JIC, the PIO continued to be active in orally sharing information, giving media interviews and informing the PIO liaison in the Jefferson County EOC as events unfolded. However, none of this information was committed to paper.

Observation

Subject: Written Documentation

Discussion: The PIO performed everything required. However the majority of his interaction was oral. Oral remarks are not a replacement for carefully worded, precise, written EAS decisions. Only one pre-scripted EAS message was forwarded and received by the JIC. EAS messages #2 and #3 were never forwarded to appropriate entities.

Recommendation: Develop new pre-scripted EAS messages for communicating clear and concise information regarding the PAD. Other oral communication should be documented by facsimiles or electronic mail.

Emergency Response Outcome 8 – Remediation and Recovery

Not Applicable.

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GRANT COUNTY (GRA)

Emergency Response Outcome 1 – Prevention and Preparedness

Grant County Emergency Operations Center (EOC) receives a Pine Bluff Arsenal (PBA) work plan daily with the Maximum Credible Event (MCE) and Protective Action Recommendation (PAR). The county can use this to make Protective Action Decisions (PAD).

The County's Emergency Operations Plan (EOP) was promulgated by the Grant County Judge on February 18, 2005. The synchronization matrix for Grant County was dated January 4, 2002.

Grant County participates in PBA's Chemical Accident or Incident Response and Assistance (CAIRA) exercises quarterly. A review of the county training records showed that four types of Chemical Stockpile Emergency Preparedness Program (CSEPP) training classes were offered in 2005. CSEPP Personnel Protective Equipment (PPE) training was not conducted for first responders in 2005 but is planned for 2006.

The EOC staff logs all CSEPP training completed by the local volunteer fire departments. In addition, county fire departments also log completed training for CSEPP and hazardous materials. Grant County is within the Immediate Response Zone (IRZ) and Protective Action Zone (PAZ). The county coordinates with the CSEPP community to produce and distribute an annual CSEPP calendar. They also participate in an active media campaign that uses state and local print, radio and TV media to educate the public.

Emergency Response Outcome 2 – Emergency Assessment

At 0846, Grant County 911 Communications Center received the initial notification of a Level IV Community Event via the PBA hotline followed by the PAR via fax. The hotline call indicated there was an explosion at PBA. It was unknown what caused the explosion, but two M23 landmines filled with the VX nerve agent. The PBA Emergency Notification Form was correctly filled out by the dispatch supervisor and was forwarded to the Grant County EOC Office of Emergency Management (OEM) Coordinator.

The hotline was used by PBA to notify the county of any changes to the affected zones and changes in weather conditions. Because the plume did not affect Grant County, monitoring or sampling within the county was not required. The county put decontamination teams on standby.

The Protective Action Recommendation (PAR) recommendations were to evacuate PBA and initiate a shelter in Zones A and J. The hotline emergency notifications received at 0909 and 0910 were confusing when received and the County Coordinator requested clarification of data with PBA. Upon clarification of the 0909 notification, evacuation routes orange, blue and green were meant for PBA personnel only. The 0910 notification recommending shelter for Zones K, BC, L, A, J, I AI and B was incorrect and it was clarified that Zones A and J were the only ones

affected. The County Coordinator had not taken action on these notifications until clarification had been done; thus he avoided confusing the EOC staff as well as the public.

At 1131, hotline information revealed that the event had been downgraded to a Level II (Limited Area Only). The information received was that a forklift battery had exploded while moving a pallet of M23 landmines. Two of the landmines were leaking VX.

All informational updates and reports from PBA and Jefferson County were forwarded immediately to the County Coordinator.

Emergency Response Outcome 3 – Emergency Management

The 911 Communications Center at Grant County EOC received the initial call from PBA via the hotline at 0846. The County Coordinator was immediately notified. The County Coordinator and Administrative Assistant began their call down per procedures. The County Coordinator requested the EOC staff to report to the EOC for an initial accident briefing. The EOC was activated at 0850 and operational at 0905.

A recent EOC expansion adequately supports operations. The EOC houses a command center and a communications center. The command center seats 15. The command center has workstations with computers, a copy of the County EOP and medical information (nerve agent fact sheets) for each officer. The Public Information Officer's (PIO) office was down the hall from the EOC.

The primary means of communications was via land line telephones, 911 dispatch radio, fax machines and computers (e-mail) linked to the Arkansas Department of Emergency Management (ADEM) EOC, PBA, and the Joint Information Center (JIC). They utilized the services of the Radio Amateur Civil Emergency Service (RACES) as a backup means of communications. RACES operators could be deployed to reception centers and shelters if needed.

Within the EOC, projectors were used to display plume and shelter activity. The staff used two white boards to track county EOC activation, declarations, event log, reception centers and Traffic Control Points (TCP).

The EOC received the initial PBA PAR at 0852 and made their PAD in accordance with their procedures (which is to accept the PAR). The plume information received with the initial PAR indicated that the plume did not affect zones in Grant County. The PAD prepared the county to receive evacuees from Jefferson County. At 0908, the County Coordinator conducted the first EOC briefing; he requested the staff prepare to set up a reception center and directed the Grant County Sheriff to set up a TCP at the county line (demonstrated out of sequence on Feb. 7, 2006). The County Coordinator also directed that all media calls be referred to the PIO and/or JIC.

At 0910, the county declared a local State of Emergency and faxed the declaration to ADEM.

The OEM Coordinator requested support from the American Red Cross for shelter operations in addition to deploying RACES operators to each shelter.

The OEM Coordinator conducted hourly briefings with roundtable input from the staff. This ensured that everyone was informed.

A mock media reporter called requesting signs and symptoms of the nerve agent VX. The call was transferred to the Health and Medical Officer, who instructed the reporter to call the JIC in Jefferson County.

In late 2005, the expansion for the Grant County EOC was completed. Grant County is the alternate for Jefferson County; the expansion included four additional work areas with computers for the Jefferson County primary emergency staff and other supporting agencies.

Emergency Response Outcome 4 – CAI Hazard Mitigation

Not Applicable.

Emergency Response Outcome 5 – Protection

The Grant County EOP outlines emergency protective measures to be followed in the event of a Chemical Accident/Incident at PBA.

The County Coordinator was notified of a Level IV event via the hotline at 0846. The PAR recommended normal shelter for Zones A and J which did not affect the county. The PAR was accepted and a PAD was issued to support the simulated set-up of the reception center and shelters for receiving evacuees from Jefferson County. At 0850, the EOC was activated and became operational at 0905.

At 0842 the initial Alert & Notification (A&N) of Tone Alert Radios (TARs) and sirens were sounded by PBA for the affected areas on- and off-post, including a voice notification message. The second and third siren and TAR activation were conducted by Jefferson County. On the second activation at 0907, an equipment failure occurred at the Jefferson County EOC. Shortly thereafter Grant County received a call from the Jefferson County EOC requesting they assume responsibility for A&N. Grant County conducted the A&N as requested at twelve minute intervals for the first hour and every twenty minutes thereafter. Two live activations were conducted at 0914 and 0926, and the following three were simulated at 0938, 0950 and 1002. Immediately after the 1002 activation, a call was received from the Jefferson County EOC requesting the termination of A&N by Grant County.

The Grant County A&N technician noticed an equipment malfunction indicator light on the equipment control panel and computer screen. The computer maintenance log verified that the sirens had sounded. The malfunction was noted on the return confirmation report from the sirens to the equipment controller. The technician then followed up with the Jefferson County

technician and was informed that Jefferson County's server had gone down, resulting in the failure of the A&N equipment.

Grant County simulated contacting needed resources (ARC and RACES) required to implement shelter operations.

Simulated activation of a Traffic Control Point/Personnel Processing Point (TCP/PPP) was conducted out of sequence at 1700 on Feb. 7, 2006 at 1511 Rose Street in Sheridan.

The TCP closed Highway 46 just outside of the city of Sheridan. The TCP was set up at the entrance to the Recreation Center parking lot. The TCP was established by the placement of barricades and staging of equipment. It was staffed by one Sheridan police officer and one Grant County deputy. Emergency lighting and a portable generator were available at the site for use after dark.

The officers had been briefed on decontamination procedures and proper routing of victims. They were extremely knowledgeable of procedures for screening and processing of motorists including what questions to ask the motorists in order to determine whether decontamination and/or medical assistance would be required. Additional support from the Sheridan Police Department (13 officers) and Grant County Sheriff's Department (14 deputies) were available if needed to establish various TCP/PPP sites in the county.

Emergency Response Outcome 6 – Victim Care

A Personnel Processing Point (PPP) was conducted out of sequence the same evening at the same location as the TCP. Grant County Fire Departments, Center Grove Fire Department, Cane Creek Fire Department, Sheridan Fire Department, Grant County Rescue, Metropolitan Emergency Medical Services, Sheridan Police Department, and Grant County Sheriff's Department participated.

The Hazardous Materials (HAZMAT) team was equipped with ZUMRO® inflatable tents, a waste water portable containment pool, generator, powered hot water heater, and interior and exterior lighting. All HAZMAT team members were cleared to don PPE that consists of Level C ensembles with a powered air purifying respirator (PAPR). Establishment of the decontamination corridor was flawless with the notable exception of the electrical power supply. This became problematic and resulted in a delay of the decontamination corridor becoming fully operational.

Control zones were readily identifiable and established with barriers, cones, colored fire hose, barrier tape and rope. Limited access into control zones was maintained by law enforcement personnel who directed victims and provided security.

The seamless integration of the responding agencies was flawless and gave the appearance of a well trained unit. Everyone performed their duties without hesitation. The on-scene Unified Command was exemplary and demonstrated the manner in which a multi-agency accident should

be conducted under the National Incident Management System (NIMS) Incident Command System (ICS).

Decontamination team members donned PPE after medical screening and prepared to receive patients. Four ambulatory patients arrived at 1756. The four victims were directed to the entry point of the decontamination corridor. They were quickly triaged by a decontamination team member. Three of the four victims exhibited signs and symptoms of possible nerve agent exposure. They complained of diminished vision, tightness in chest, runny noses, and mild respiratory distress. They were each given a Mark I Antidote Kit in accordance with the county's Standard Operating Procedures (SOP). Each victim was given an orange wrist band indicating that they had received a Mark I Antidote Kit. They were then escorted into the decontamination shower.

The fourth victim exhibited signs and symptoms of a cardiac emergency. He had no signs or symptoms of chemical exposure. He was immediately transferred to the medical treatment area, evaluated, treated and prepared for transport.

The Emergency Medical Services (EMS) personnel quickly triaged and treated the other patients as they completed decontamination and prepared them for transport. The ambulance transport and hospital notification were simulated. A patient care report documented the victim's medical information and EMS treatment. EMS providers wore proper Body Substance Isolation (BSI) including medical exam gloves and safety glasses. They properly triaged and prioritized the patients.

This demonstration met the Department of Homeland Security's Office of Domestic Preparedness (ODP) requirements to exercise terrorism preparedness capabilities. This scenario consisted of a simulated terrorist who breached the TCP security and contaminated one of the emergency responders with an unidentified white powder. Grant County emergency responders acted in a rapid and competent manner to mitigate the threat. They immediately responded by upgrading their level of PPE to Kappler Responder liquid splash suits with Self Contained Breathing Apparatus (SCBA) and Supplied Air Respirators (SAR). Emergency responder decontamination was set up and operated rapidly and effectively. The contaminated responder was effectively decontaminated and his medical needs were addressed.

Grant County stores Mark I Antidote Kits at the EOC. An inventory of the nerve agent antidote is displayed in the table below. Approximately two-thirds of the kits are out of date.

Chemical Agent Pharmaceutical Inventory			
	Dosage amt	# of	Exp. date
Mark I Antidote Kits		160	2009
Mark I Antidote Kits		300	2004

The Grant County emergency responders performed safely, efficiently, and with a sense of urgency. They demonstrated an outstanding level of professionalism.

Personnel representing seven departments consisting of full-time, part-time, and volunteer personnel worked together in a very professional manner. They seamlessly integrated into a Unified Command and functioned as a single entity. The joint training and interoperability between departments was evident by the sense of urgency displayed and their familiarity with communications and equipment. The Grant County emergency responders' performance was exemplary.

Observation

Subject: Mark I Antidote Kits

Discussion: Grant County EOC had 160 Mark I Antidote Kits on hand with an expiration date of 2009. They had 300 expired kits on hand with an expiration date of 2004. The expired kits were marked for trade out pending receipt of new Mark I Antidote Kits. The question arose from Grant County as to who is responsible at the state level for the rotation of Mark I Antidote Kits to the counties.

Recommendation: Determine who has the responsibility for the rotation, issue, storage, and disposition of the Mark I Antidote Kits at the state level. Ensure that each agency requiring antidote has sufficient quantities of unexpired antidote.

Observation

Subject: Portable Power Generators

Discussion: There was one portable generator to support all electrical powered equipment at the decontamination site. Additional power requirements were drawn from wall outlets of the gymnasium. The amount of power required from the generator caused frequent brownouts and generator stalls and delayed the start of decontamination operations. This directly resulted in the decontamination station taking approximately 47 minutes to become operational.

Recommendation: Grant County should research the reason why there was not sufficient rated capacity to keep up with the power demands of decontamination operations. The generator was rated for the CSEPP equipment delivered to Grant County. If the equipment being used has been increased beyond the CSEPP standard list, then Grant Co. will need to find additional power resources. If the equipment listing is the same as received for CSEPP the generator needs to be repaired.

Emergency Response Outcome 7 – Emergency Public Information

The Grant County PIO works in an office down the hall from the EOC. Following the initial accident briefing, the PIO communicated with the County Coordinator and County Judge for

review and release of the first news release from Grant County. Following approval, the news release was e-mailed and faxed to the JIC.

The PIO was interviewed by mock media shortly after the EOC became operational. The PIO and EOC staff fielded calls for information from both the public and the media. Media calls were referred to the JIC after it became operational.

The PIO was dispatched in real time to the JIC following the mock media interview. The County Coordinator and Administrative Assistant maintained contact with the PIO following his arrival at the JIC. Subsequent news releases were prepared by the PIO at the JIC.

Emergency Response Outcome 8 – Remediation and Recovery

Not Applicable.

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ARKANSAS COUNTY (ARK)

Emergency Response Outcome 1 – Prevention and Preparedness

The county receives a daily work plan from the Pine Bluff Arsenal (PBA) through WebPuff™. The county has emergency plans in place in the event of a chemical accident at PBA, and these plans are reviewed at least annually. The current plan is dated March 2005.

Arkansas County participates with PBA in quarterly Chemical Accident/Incident Response Assistance (CAIRA) exercises. CAIRA participation normally includes telephonic notification followed by email exchange of information. The county also participates in the annual Chemical Stockpile Emergency Preparedness Program (CSEPP) community exercise.

Arkansas County has an active education program that provides required training to county first responders and other county personnel. Arkansas Department of Emergency Management (ADEM) maintains records for all county personnel. The County maintains “smart books” for Emergency Operations Center (EOC) personnel to review on a regular basis. National Incident Management Systems (NIMS) training has been provided to key EOC personnel.

While the county’s Public Information Officer (PIO) is only a part-time employee, the county has an active public outreach program. This is accomplished through the joint community CSEPP calendar and other printed public information publications. The County Coordinator also speaks to various civic groups, schools, media, and provides public information at the County and health fairs.

Emergency Response Outcome 2 – Emergency Assessment

Official notification of the PBA Level IV Community Event was received at the Stuttgart Police Radio Operations Room (the 911 center for Arkansas County) at 0845. The 911 Operator copied the information onto a form, and the information was provided to the Arkansas County EOC via telephone at 0848.

The County Coordinator at the Arkansas County EOC reviewed the Protective Action Recommendation (PAR), and at 0852 made the decision to activate the EOC. A Protective Action Decision (PAD) was made at the same time. The PAD was to activate the default Traffic Control Points (TCPs), activate two decontamination and shelter locations, and to support other jurisdictions. A call down was initiated at that time as well. Included in the call down were hospitals, schools and special populations. Essential information was relayed during the call down that Arkansas County would be acting in a support role.

The Arkansas CSEPP Community uses e-mail-based software, for primary communication. The Arkansas County Office of Emergency Management (OEM) Assistant monitored e-mail and sent regular local situation updates to the ADEM. When the event was downgraded to a limited area

emergency, the County Coordinator modified the PAD to close decontamination and reception centers. Status boards were updated and EOC staff was briefed.

Emergency Response Outcome 3 – Emergency Management

The County Coordinator activated the EOC and initiated call-down notifications at 0852. Special needs populations, schools and hospitals were informed of the PAD and other key information during the EOC call down. Two status boards were used to post significant information -- one board for internal use and the other for information releasable to the public. A workstation was used to monitor e-mail and relay information; WebPuff™ plumes were received through e-mail and evaluated. The County Coordinator monitored e-mail for updates to the PAR and directed updates to the status boards. The County Coordinator gave regular EOC briefings and spontaneous updates when significant events occurred.

At 0911, a State of Emergency Declaration was signed by the County Judge. The Judge and Sheriff answered policy questions. Two simulated TCPs were established and re-evaluated for applicability.

A request from the reception center for a portable toilet was received and forwarded to ADEM at 0953. At 1038, ADEM replied portable toilets were available through a private vendor. The Judge authorized the procurement and forwarded authorization to ADEM.

Status boards were continuously updated to reflect the total number of people processed at reception centers and decontamination sites.

Emergency Response Outcome 4 – CAI Hazard Mitigation

Not Applicable.

Emergency Response Outcome 5 – Protection

Arkansas County did not release any Emergency Alert System (EAS) messages; however, the county PIO did release three press releases

Arkansas County simulated two TCPs and two reception centers/shelters. The TCPs were located where US Highway 79 South and State Highway 152 intersect, and on Highway 11 at the Arkansas/Jefferson County line. Arkansas County deputies were sent (simulated) to both locations. The County Judge directed highway department personnel to deliver barricades to the TCPs. Reception centers/shelters were set up at the DeWitt Fairgrounds and the Grand Prairie War Memorial Auditorium. These facilities sheltered 70 and 63 evacuees, respectively.

Emergency Response Outcome 6 – Victim Care

Stuttgart Regional Medical Center (SRMC) is a 49-bed acute care hospital, with an eight-bed Emergency Department (ED). The ED is staffed 24 hours a day with one physician and a surgeon on call, two nurses from 0700-1900 and one nurse from 1900-0700. The decontamination team consists of personnel from maintenance, Emergency Medical Services (EMS), and clinical administration. There are two hospital-based ambulances that are staffed as an Advanced Life Support unit and a Basic Life Support unit. Currently, they have 14 full sets of Occupational Safety and Health Administration (OSHA) Level C Personal Protective Equipment (PPE) and an additional six full sets of training PPE. The hospital's pharmaceutical antidote cache consists of:

Chemical Agent Pharmaceutical Inventory			
	Dosage amt	# of	Exp. Date
Atropine	1125 mg	-	03/08
2-PAM Chloride	66 Gm	-	11/09
Diazepam	300 mg	-	

The facility has no Mark-I Antidote Kits. Their decontamination shelter is a small ZUMRO® inflatable shelter with a portable propane-fueled water heater capable of processing ambulatory and non-ambulatory patients. They have a larger version, but insufficient staff to transport, set up and utilize it. Both shelters are housed in portable trailers; the hospital will soon take possession of a truck to enable them to transport the equipment trailers to various locations.

The initial notification was received at 0906 via a phone call, and at 0908, a fax was received. This fax included information that the agent was VX and that the PAR for zones A and J was “normal shelter.” Following this notification, the ED clerk notified the ED Nurse Manager, hospital administration, Decontamination Team Leader, and the hospital operator. The operator made an overhead hospital announcement for “Dr. Briar Stat, Drill”, the emergency response code for SRMC. Within minutes, support staff began to arrive in the ED, including the Nursing Supervisor, personnel from medical records, radiology, and nursing. Each wore a disaster badge that identified their roles for the emergency. The Nursing Supervisor immediately researched the affected zones and determined that hospital evacuation would not be necessary. Based on the fax information, the wind direction was from the northeast at 4 miles per hour. Additional staff continued to report to their assigned posts within the hospital. The Incident Commander (IC) redirected hospital personnel to areas where needs existed. Within 15 minutes of the activation of the IC, bed availability and staff resources had been reported to the IC.

The hospital has made significant improvements on the security of doors throughout the facility by assigning this function to other ancillary department personnel. Lockdown of the facility was completed at 0942. The Decontamination team quickly and efficiently established the decontamination corridor and then proceeded to don PPE. The Decontamination Team members' vital signs were taken prior to the establishment of the decontamination corridor. The Hospital Emergency Operations Center (HEOC) was staffed by the Director of Nursing acting as the IC and five mid-management staff members fulfilling the other roles within the incident command

structure. The incident command staff functioned in these roles effectively with limited Hospital Emergency Incident Command System (HEICS).

The secondary triage area was established just inside the Radiology doors adjacent to the decontamination shelter. A holding area was established and staffed. Patients triaged as “minimal” or “walking wounded” was sent to this area. The staff recall procedure was implemented and tested successfully during this exercise. An area to facilitate child and elder care for employees was established.

Three patients arrived at SRMC at 1017. The patients presented in the parking area just outside the ED. There were no signs to direct arriving patients to the appropriate area. A decontamination team member dressed in PPE staffed the triage table and directed.

Within the decontamination corridor there were no clear zones (warm and cold) designated within the decontamination area. There was an Emergency Medical Technician (EMT) acting as the Triage Officer (TO) suited in PPE, at the beginning of the decontamination corridor to triage arriving patients. There was a severe shortage of equipment, including wheelchairs, Mark-I Antidote Kits and medical personnel to properly assess and initiate treatment on presenting patients. Decontamination was simulated because of weather conditions. The TO assessed the patients based on signs and symptoms of potential nerve agent exposure and administered Mark I Antidote Kits to all three victims. The patients did not meet criteria for medical treatment according to the hospital nerve agent protocol. In addition, the hospital currently does not possess Mark I Antidote Kits. Mark I Antidote Kits are maintained at the County EOC and dispersed by OEM staff based on perceived need at the receiving facilities.

The three patients arrived at the triage area at 1017 and were interviewed briefly by the TO. Each patient presented with shortness of breath and eye pain. The TO (simulated) administered Mark I Antidote Kits to each patient. Patient 1 was given two Mark I Antidote Kits after indicating that the first administration did not relieve symptoms. While the other two patients were administered one 1 simulated Mark I Antidote Kits each. The administrations of the Mark I Antidote Kits were given in the upper arm. This is an inappropriate site for the administration of Mark I Antidote Kits.

Upon completion of the simulated decontamination, each patient was escorted into the facility. Each patient was tagged with a blue band to indicate that they had received decontamination. However, no orange banding system was utilized to identify the administration of Mark I Antidote Kits per the County Plan. Hospital Medical Records personnel received these patients from decontamination to obtain pertinent medical information. A medical record card was attached to each patient following this procedure. However, no information was written on the card to facilitate patient tracking. Patient vitals signs were not taken during secondary triage. There was no mechanism to track the patient or patient belongings past this point. A standardized triage system such as Simple Triage and Rapid Treatment (START), was not utilized as per the Arkansas County Plan. Patient #1 was transported to the ED for further evaluation while the other two patients were escorted to a patient holding area for observation.

The staff of SRMC displayed much enthusiasm and understands that there are areas for improvement. The staff is actively pursuing agreements with area hospitals and emergency agencies (private ambulance and fire services) for mutual aid assistance in the event of a disaster. They also understand that there is a great need for additional trained staff, especially those with a medical background that would allow for appropriate triaging of patients.

The IC was staffed by the new Director of Nursing and other hospital mid management personnel with minimal HEICS training or experience. They worked well together and maintained an open dialogue to improve the system. The hospital staff utilized ICS vests to identify positions, as well as disaster tags identified additional job responsibilities. Due to their limited formal incident command training or experience, they would greatly benefit from the training received from attending a HEICS Course.

Observation

Subject: Absence of Mark I Antidote Kits

Discussion: There is a lack of Mark I Antidote Kits at SRMC and throughout Arkansas County. The Arkansas County EOC has Mark I Antidote Kits and plans to distribute them to all facilities in the event of a release. In that event, there needs to be immediate access to the Mark I Antidote Kits. It would be logistically impossible to deliver them in a timely manner. In addition, bulk Atropine and Pralidoxime should be available from the hospital pharmacy when needed.

Recommendation: Mark I Antidote Kits need to be stored at the hospital and be delivered during an emergency response. The Emergency Medical Services for the county are based at SRMC, and the decontamination for SRMC is located to support an accident at PBA so the need for numerous Mark I Antidote Kits is imperative to properly medicate arriving patients

Observation

Subject: Decontamination Team

Discussion: Only four members of the SRMC response team were available to suit up in PPE. This left no personnel available as a backup team to assist in the event of an emergency or the need for decontamination team crew change. Additional personnel would need to be available for the processing of non-ambulatory patients through the decontamination corridor. The need for training additional personnel is imperative to protect the safety of the employees and the community.

Reference: OSHA 29 Code Federal Regulation 1910-120(q)(3)(vi)

Recommendation: The hospital should recruit additional employees or community members that can assist. Areas of consideration should be departments with minimal

staff turnover, physically-able personnel, and 24-hour staffing. In addition, consider discussion with local businesses to recruit their pre-established decontamination teams or from outside government agencies. All personnel participating in the decontamination of victims must be trained to the OSHA Hazardous Materials operations level, medically screened, and enrolled in a respiratory protection program. Federal law requires this and it is not optional in its interpretation.

Observation

Subject: Antidote Administration

Discussion: Staff at SRMC administered Mark I Antidote Kits to patients inappropriately. They gave 1-2 Mark I Antidote Kits to patients not exhibiting sign or symptoms that require antidote administration. They also administered Mark I Antidote Kits in the arm rather than the thigh which is the appropriate site for Mark I Antidote Kit administration. The staff and decontamination team members need additional training on the recognition of signs and symptoms of nerve agent exposure and proper antidote administration.

Reference: CSEPP National Medical Curriculum

Recommendation: SRMC should train more medical personnel to ensure sufficient numbers of trained employees are readily available to respond in the event of a disaster. Each of these employees will need an eight-hour approved training course to be in compliance with OSHA requirements. Medical personnel need to be trained to suit up and be available to triage.

The correct dose for using Mark I Antidote Kits is:

Atropine 2 mg IM

Pralidoxime Chloride (2PAM-Cl) 600 mg IM to be administered into the thigh.

Multi-dose vials:

Atropine: 2 mg IM IV

Pralidoxime Chloride (2 PAM-Cl): 1 gram slowly (20-30 min)

Diazepam: 2 mg increments and titrate to effect.

All victims exposed and treated for nerve agents will be monitored for at least 18 hours.

Observation

Subject: Communications

Discussion: SRMC has increased the number of handheld radios; however, confusion remains on the proper use of frequencies. There is limited communication among the decontamination area, the ED and the SRMC EOC. This is problematic because it is

imperative that there be continuous communication with all departments in an emergency to allow for better patient flow and safety.

Recommendation: SRMC should standardize radio frequencies to accommodate all participating departments. Employees should be given additional training in radio use and standard radio protocol.

Status of Previous FRCAs

Previous Finding Number: ARK05.6.1

Subject: Incident Command System (ICS)

Resolved: Yes

Emergency Response Outcome 7 – Emergency Public Information

The county PIO was notified of the accident through the County call down and arrived at the EOC at 0859.

Arkansas County was not directly affected by the accident at PBA; however, the PIO continuously gathered information about the accident. The PIO prepared three news releases explaining what had happened, where decontamination sites were established, the locations of reception centers and shelters, and the time and location of the Joint Information Center (JIC) press conference. Each of the news releases was numbered and included the date and time of approval for the release.

The PIO worked with the JIC, media and the public to answer many questions. EOC personnel received several media calls requesting information on agent exposure, long-term effects, antidote availability and patient treatment. In general, Health Department personnel referred callers to the JIC. On one occasion, the County Judge attempted to answer questions from the media. Supplemental information was provided by a health representative when a fact sheet about VX was faxed to the reporter. Additional training for health representatives might improve their ability to provide timely, accurate and concise information regarding nerve agent symptoms and antidotes.

Emergency Response Outcome 8 – Remediation and Recovery

Not Applicable.

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CLEVELAND COUNTY (CLE)

Emergency Response Outcome 1 – Prevention and Preparedness

With the recent upgrade to WebPuff™, the Cleveland County Emergency Operations Center (EOC) has direct access to the daily work plan from the Pine Bluff Arsenal (PBA). The county reviews the work plan to determine if the Maximum Credible Event (MCE) presents a risk to Cleveland and whether any actions are required.

The Cleveland County plans that form the basis for response activities have not been revised since the previous exercise. The Cleveland County Emergency Operations Plan is dated March 9, 2004 and Annex L: Emergency Operation Implementation Procedures are dated March 8, 2005.

The staff of the Cleveland County Office of Emergency Management (OEM) regularly participates in PBA Chemical Accident/Incident Response and Assistance (CAIRA) exercises. The Cleveland County Coordinator serves as the County's trusted agent for the annual Chemical Stockpile Emergency Preparedness Program (CSEPP) exercise.

Cleveland County OEM maintains training records for its employees and first responders by department and/or training course. Recent courses included the National Incident Management System (NIMS) and Incident Command System (ICS) Levels 100 and 200. Training requirements are established by the Arkansas Department of Emergency Management (ADEM).

Emergency Response Outcome 2 – Emergency Assessment

The Cleveland County Sheriff's Department Dispatch Center is located adjacent to the Cleveland County EOC and is staffed 24-hours a day. The PBA hotline is managed by the Dispatch Center.

At 0845, the Dispatch Center received notification from the PBA hotline that a Level IV Community Event had taken place at 0842. The dispatcher immediately and accurately recorded the incoming information on the Emergency Notification form and faxed it to the EOC at 0849. At 0849, the ADEM EOC confirmed the PBA message via the hotline and asked for a roll call of the counties notified. The Cleveland County Sheriff's Department Dispatch Center responded to the roll call at 0850.

The initial information received from PBA stated that there had been an explosion involving VX-filled M23 landmines. The County Coordinator illustrated the direction of the potential plume using the large zone map posted on the wall of the EOC. The County Coordinator pursued updates and information from ADEM, the Joint Information Center (JIC) and other sources.

Seven updates were received and faxed by the Cleveland County Sheriff's Department Dispatch Center to the Cleveland County EOC. These faxes, as well as e-mail transmissions from the JIC,

served as the primary means for receiving emergency information by the EOC. Additional information from WebPuff™ was used after review by the County Coordinator and other trained personnel.

Emergency Response Outcome 3 – Emergency Management

The initial Protective Action Recommendation received from PBA at 0849 did not specify any protective actions for Cleveland County. Upon review of the notification form, the County Coordinator activated the EOC at 0849 and then adopted a modified “No Action” Protective Action Decision (PAD) for Cleveland County. Seven subsequent notification forms were received from PBA. The County Coordinator indicated that if Cleveland County had a need to conduct field response activities, personnel would be dispatched for a traffic control point (TCP), decontamination station, and the adjacent reception center.

The County Coordinator and deputy County Coordinator conducted the call down of EOC staff. The call down was complete at 0854. The Cleveland County EOC was staffed: the County Coordinator, the Deputy County Coordinator and six volunteers. The County Coordinator began setting up the EOC and then transferred this responsibility to staff as they arrived. The Coordinator declared the EOC operational at 0915.

Numerous attempts were made to reach the County Judge, the senior county decision-maker, during the first hour of the event. At 0954, the County Coordinator requested that the Road Foreman report to the EOC to serve in the place of the County Judge. The County should ensure that the complete line of succession of authority is provided in the County Plan. Upon his arrival several minutes later, the Road Foreman was briefed by the County. They agreed to issue a disaster declaration for the county. The Declaration was signed at 0959 and faxed to ADEM and the JIC by 1004. The County Judge arrived at 1026, was briefed by the County Coordinator, and assumed decision-making responsibility from the Road Foreman.

In the EOC, the County Coordinator exercised direction and control. The County Coordinator assigned tasks such as responding to incoming telephone calls, managing the fax machine and updating status boards. The County Coordinator personally developed and issued status report e-mails describing County response activities for the ADEM situation report. The County Coordinator also reviewed all incoming faxes and e-mails and shared the latest information and updates in periodic briefings to EOC staff. The County Coordinator made sure that all volunteers, especially those who had no EOC experience were briefed on their duties upon arrival. All volunteers reviewed the EOC procedures. The EOC procedures books had been placed at each station around the EOC operations table by the County Coordinator. All of these activities were conducted efficiently and professionally.

At 1206, the County Coordinator faxed a notification to the JIC that the Cleveland County EOC would operate at Level 2 (enhanced staffing).

Observation

Subject: Rollover of Telephones

Discussion: A technical problem was experienced in setting up additional telephones to support EOC operations. This challenge had been discussed with phone service technicians over the past year – the phone service provider assured the County Coordinator that the problem would not occur this year. However, no attempt was made to verify the correction. Because these phones are used only in an emergency, the recurrence of the problem was not identified until the emergency.

The telephone system did not roll over. As soon as the problem was identified, the County Coordinator brought in telephone company technicians to troubleshoot. Upon arrival of the technicians, a workaround was developed and implemented quickly so that incoming calls could be handled more effectively. This issue was solved in a timely and efficient manner.

Recommendation: EOC staff devised several possible solutions including installing a dedicated line in the EOC for emergency operations with rollover capabilities from the EOC to the County Coordinator and Deputy County Coordinator.

Emergency Response Outcome 4 – CAI Hazard Mitigation

Not Applicable.

Emergency Response Outcome 5 – Protection

In accordance with the Extent of Play Agreement no field activities were demonstrated. However, the County Coordinator indicated that a TCP, decontamination station and reception center would have been established. The County Coordinator stated probable times during an event that these actions would have been implemented. Based upon the PAD, there was no need to take protective actions for schools, daycare centers, special populations or traffic flow.

Emergency Response Outcome 6 – Victim Care

Not Applicable.

Emergency Response Outcome 7 – Emergency Public Information

Cleveland County does not have a Public Information Officer (PIO). The Cleveland County public information dissemination was handled by the County Coordinator, the Deputy County Coordinator and several volunteers.

One Emergency Alert System (EAS) message was developed at 0953. This EAS message was faxed to the JIC at 1002.

All incoming faxes from the JIC and media reports were reviewed by the County Coordinator. Any relevant information was shared with EOC staffers.

The County Coordinator supplied information regarding county activities.

All volunteer personnel, including three that had not previously worked in an EOC, responded to calls from the media and public in a timely and professional manner. All questions regarding health issues were handled by medical personnel. These personnel were a valuable addition to the EOC.

Emergency Response Outcome 8 – Remediation and Recovery

Not Applicable.

DALLAS COUNTY (DAL)

Emergency Response Outcome 1 – Prevention and Preparedness

The County Chemical Stockpile Emergency Preparedness Program (CSEPP) Coordinator views the Pine Bluff Arsenal (PBA) daily work plan, Maximum Credible Event (MCE) and Protective Action Recommendation (PAR) on WebPuff™.

The County Emergency Management Operations Plan is dated 2005. The County participates in quarterly Chemical Accident/Incident Response and Assistance (CAIRA) exercises. The County provides a representative to the annual CSEPP exercise planning team and PBA Community Integrated Process Teams.

The County provides training in Emergency Operations Center (EOC) functions to EOC staff members. Training for decontamination teams is provided by their respective fire departments.

The County CSEPP outreach program centers on participation in three community fairs. The Emergency Coordinator also spoke at six community group meetings last year. The County distributed the CSEPP calendar to residents. Arkansas Department of Emergency Management (ADEM) sponsors a CSEPP television and radio campaign. These efforts also target Dallas County.

Emergency Response Outcome 2 – Emergency Assessment

The initial call came into the County's 24-hour warning point. The official notification to the EOC came via a sheriff's deputy dispatched to the EOC. Redundant notification came by fax per Standard Operating Procedures (SOP). Weather conditions were displayed on status boards and were also correctly reflected on the zone map depicting wind direction and affected areas.

Emergency Response Outcome 3 – Emergency Management

The Dallas County Office of Emergency Management (OEM) ran an effective operation. Upon receiving official notification of an accident at PBA, The EOC staff immediately began their call down procedures. The County Coordinator notified the County Judge who responded to the EOC for a briefing. An Emergency Declaration was prepared by the County Coordinator and all necessary signatures were attached. A declaration was called in and was then followed up by a hard copy to ADEM as required by the County's SOPs. The EOC staff was briefed as they arrived.

Status boards were effectively maintained. An initial situation briefing was given to all EOC staff and updates were conducted as needed. All incoming information was reviewed and passed on to the appropriate EOC staff for notification and informational purposes. The County Public

Information Officer (PIO) received all Joint Information Center (JIC) reports and mock media stories. Regular Situation Reports were prepared by Dallas County EOC staff and sent to ADEM.

The County Coordinator and the County Judge determined that it was not necessary, based on current event information, to require all responding staff to remain in the EOC. All responders were briefed and contact information verified. Those who were not needed in the EOC returned to duties elsewhere but remained available to respond to the EOC.

The EOC demonstrated the capability (simulated) to notify the two nursing homes located in the Protective Action Zone (PAZ) during the county call down. There are no other special populations in the PAZ.

There were no Reception Centers, Shelters, or Traffic Control Points (TCP) established because the County did not need to assist any evacuees.

The County maintained contact with ADEM and other jurisdictions via e-mail, fax, cellular phone and land line. There was limited information exchanged between Dallas County, ADEM and the other CSEPP counties. Dallas County requested casualty information from ADEM at 0956. ADEM did not provide the information or state that it was not yet available. At 1120, a Mock Media news story (#8) reported four casualties. This resulted in further casualty status confusion. The County EOC also monitored event information on WebPuff™. Dallas County received notification at 1140 that the event was a Level II event and not a Level IV event. This caused some confusion at the EOC because it seemed fairly far into the event to make such a radical change. The County CSEPP Coordinator contacted ADEM to acknowledge receipt of the change in event level and requested confirmation of the change. Confirmation was quickly provided by ADEM.

Proper protocol was followed during the delivery of exercise messages and notifications. The EOC has adequate means of communication to support emergency operations.

Emergency Response Outcome 4 – CAI Hazard Mitigation

Not Applicable.

Emergency Response Outcome 5 – Protection

There were no Reception Centers, Shelters, or TCPs established because the County did not need to assist any evacuees.

The EOC demonstrated the capability to notify the two nursing homes located in the PAZ during the county call down. The actual notification was simulated. There are no other special populations in the PAZ.

Personnel from the Dallas County Health Department and the local chapter of the American Red Cross (ARC) responded to the County EOC. They were prepared to assist with the establishment of reception centers if required.

Emergency Response Outcome 6 – Victim Care

Dallas County Hospital (DCH)

The Director of Nursing and the Emergency Department (ED) director of Dallas County Hospital (DCH) said many of the tasks outlined in the Extent of Play Agreement could not be demonstrated because there were not enough hospital personnel available. Only one person would be available for dressing out in Personal Protective Equipment. This would be inadequate to demonstrate any of the decontamination procedures and would be an unsafe task. DCH had not arranged for simulated patients for this exercise.

Staffing had been reduced approximately 30 percent in the last year, and additional reductions were imminent. DCH was willing to participate in an extremely limited role. The hospital would be able to communicate with the County EOC but would be unable to decontaminate or process a group of simulated patients.

DCH did not participate.

Emergency Response Outcome 7 – Emergency Public Information

The Dallas County PIO worked in the EOC effectively. All pertinent public information and information updates were given to the PIO. An (simulated) EAS message was broadcast. The PIO explained the procedures to broadcast this information at the local radio station. No news releases were developed.

The PIO did not go to the JIC but reviewed information from the JIC and media releases for impact on Dallas County.

Emergency Response Outcome 8 – Remediation and Recovery

Not Applicable.

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LINCOLN COUNTY (LIN)

Emergency Response Outcome 1 – Prevention and Preparedness

Lincoln County has access to the daily work plan from Pine Bluff Arsenal (PBA) and reviews it as necessary. The County Emergency Plan is signed and dated May 2005. The Lincoln County Chemical Stockpile Emergency Preparedness Program (CSEPP) Annex L is signed and dated March 2005. Plans are reviewed no less than annually.

The County participates in Chemical Accident/Incident Response Assistance (CAIRA) exercises and is a participant in the annual CSEPP exercise.

National Incident Management System (NIMS) training classes for police and emergency management staff has been completed during the past year, and fire department training is planned for 2006 to meet federal requirements.

Public outreach activities include a weekly article in the local newspaper as well as a CSEPP booth at the county fair and Star Days. Calendars, mugs, cushions, toys, rulers, and other giveaways also inform the public about CSEPP.

Emergency Response Outcome 2 – Emergency Assessment

At 0846, the Lincoln County Sheriff's dispatcher received notification via the PBA hotline of a Level IV emergency involving VX nerve agent. The information was recorded on the PBA notification form and was faxed to the Lincoln County Emergency Operations Center (EOC) at 0852. The dispatcher then called the EOC to verify receipt of the information. The Protective Action Recommendation (PAR) was to shelter Zones A and J.

Emergency Response Outcome 3 – Emergency Management

The Lincoln County EOC received the PBA notification form via fax of a Level IV Incident involving VX nerve agent from the County Sheriff dispatcher at 0852, receipt was confirmed by phone. The information indicated Zones A and J should shelter-in-place. At 0855, Star City and Grady were notified by fax.

The Radio Amateur Communication Emergency Service (RACES) personnel arrived at the EOC at 0855 and established communications with other agencies under the direction of the Lincoln County Coordinator. Star City and Grady were notified by fax. At 0856, the County Coordinator started the EOC call down, specifying the activation was limited and their presence was not required at that time. Replies were received from all members. The County Coordinator and staff continued to monitor the situation, receiving updates from PBA and the plume dispersion model D2-PuffTM.

Lincoln County Fire Department Decontamination was placed on standby at 0920. The Arkansas Department of Health and Human Services (ADH) representative arrived at the EOC at 0913, and the County Coordinator declared the EOC operational with limited activation at 0914.

At 0935, the County Coordinator declared a county State of Emergency. He gave the first of several EOC briefings at 0948. These briefings shared updated news stories and information from PBA and the Arkansas Department of Emergency Management (ADEM).

At 1138, PBA reduced the incident to a Level 2 event, and at 1155 the County Coordinator stood down the Lincoln County EOC.

Emergency Response Outcome 4 – CAI Hazard Mitigation

Not Applicable.

Emergency Response Outcome 5 – Protection

Based on information provided, the County Coordinator determined Lincoln County was not in immediate danger; therefore the Protective Action Decision (PAD) was for limited EOC activation. Further protective action was not required.

The County Coordinator and EOC staff discussed plans to meet the needs of schools and special needs populations if required. Plans for the use of radio and television communications to disseminate information were reviewed and discussed with no additional action taken.

Emergency Response Outcome 6 – Victim Care

Not Applicable.

Emergency Response Outcome 7 – Emergency Public Information

There was no field play or media coverage in Lincoln County. The County Coordinator and staff received and discussed news releases and answered phone calls

Calls from concerned citizens were received and answered directly or routed by the County Coordinator to the appropriate agency. A call from the media seeking information regarding nerve agent symptoms was given to the ADH representative, who subsequently directed the call to the Joint Information Center (JIC). This information could have been provided directly, but the EOC staff was reluctant to provide this type of information to the media.

Emergency Response Outcome 8 – Remediation and Recovery

Not Applicable.

LONOKE COUNTY (LON)

Emergency Response Outcome 1 – Prevention and Preparedness

Lonoke County receives the daily work plan from Pine Bluff Arsenal (PBA) via WebPuff™. They review the work plan and have the capability to make Protective Action Decisions (PAD) from the information. The staff is trained and knowledgeable in WebPuff™.

The County has a Chemical Stockpile Emergency Preparedness Program (CSEPP) Plan and it was last updated in March of 2005. The plan has been reviewed and approved by the County Judge.

Lonoke County has an active exercise program and routinely participates in PBA's Chemical Accident/Incident Response and Assistance (CAIRA) exercises. Lonoke County sends a representative to the Pine Bluff CSEPP community Exercise Planning Working Group that determines what is to be demonstrated during the annual CSEPP exercises.

CSEPP training is offered by the Arkansas Department of Emergence Management (ADEM) and PBA. This year's courses included Exercise Design, the Incident Command System (ICS), the National Incident Management System (NIMS), Personal Protective Equipment (PPE), Decontamination Procedures, and the Joint Information System (JIS). The county is knowledgeable of position-specific training and certification requirements and, in conjunction with ADEM and PBA, documents that training.

The County, in conjunction with ADEM, produces and distributes numerous public information publications and materials. Lonoke County also participates in a CSEPP media campaign that provides public information through a web site, TV, radio and newspaper. The county's Deputy Coordinator conducts briefings and CSEPP-specific trainings for local clubs, church groups and schools.

The Emergency Operations Center (EOC) equipment and communications systems are used daily for routine business.

Emergency Response Outcome 2 – Emergency Assessment

The initial notification of the accident on PBA was received at Lonoke County's 24-hour warning point in the Sheriff's dispatch center at 0845 via the PBA hotline. A Level IV Community Event was declared. The accident involved an explosion of M23 VX-filled landmines. The wind was from 56 degrees at four miles per hour and the Protective Action Recommendation (PAR) was for normal shelter-in-place Zones A and J. PBA's PAD was to evacuate non-essential personnel. The call was completed at 0849, and the communications officer provided accident notification to the EOC at 0850. The dispatch center staff was well trained and efficient and relayed all pertinent information to the EOC.

The Deputy Coordinator, in consultation with the County Coordinator, decided that Lonoke County was not at risk. The EOC was activated in accordance with the plan for a Level IV Community Event. Event verification was received from ADEM at 0854. The ADEM message included a plume plot that showed the plume going away from Lonoke County. The EOC's action plan was to fully activate and provide support to other counties as necessary. The County Coordinator and the Deputy CSEPP Coordinator continued to monitor notification updates throughout the emergency.

Emergency Response Outcome 3 – Emergency Management

The County Coordinator and Deputy Coordinator decided to activate the EOC at 0851 and began their call down procedures. The EOC was declared operational at 0856 when sufficient staff were on hand to begin operations. The EOC was secured by locking all access doors except the main door and responders were required to sign in as they arrived.

The EOC staff consisted of the County Judge, County Coordinator, Deputy Coordinator, Road and Bridge Supervisor, County Clerk and three representatives from the Arkansas Department of Health (ADH). At 0855, the Deputy Coordinator briefed the staff on the accident and the county's response actions. The briefing was complete and accurate. The Deputy Coordinator briefed the County Judge on the need for an emergency declaration and the judge signed it at 0900. It was faxed to ADEM at 0901. The county did not require any outside assistance during this response.

WebPuff™ was monitored by the County Coordinator throughout the exercise and provided PAR/PAD reports and run summaries that supplemented information received from ADEM. At 0905, the Deputy Coordinator prepared the first news release issued by the county. This news release was approved by the County Judge and faxed to the Joint Information Center (JIC) at 0907 and to ADEM at 0911. This news release informed Lonoke residents of the accident, that they were not affected, and to listen to radio, television and National Oceanic and Atmospheric Administration radio for further information.

At 0914, a second notification form was received in the EOC via the hotline and showed a 15.3 mile downwind hazard distance for Acute Exposure Guideline Level 1 and added additional zones to the PAR. This notification led to some confusion about what zones were involved and the Deputy Coordinator requested clarification from the County Coordinator. The County Coordinator quickly determined that the new information was in error and that the PAR was actually “no off post protective actions required”. The Deputy Coordinator prepared a second news release with this new information and faxed it to the JIC and ADEM at 0929. Throughout the emergency, the County Coordinator and the Deputy Coordinator kept the EOC and ADEM informed of their activities with regular briefings and updates. The ADH staff in the EOC kept the ADH informed of health-related concerns and inquiries received in the EOC. They also served as call takers and correctly and professionally answered most of the questions and inquiries from the media and the public; however during the response to a media inquiry requesting information about agent characteristics, long term effects, antidote use, etc. The

ADH representative in the EOC could not answer most of the questions and referred the caller to the JIC

Lonoke County has 12 predetermined traffic and access control points. None of these were needed for this response, but the Deputy Coordinator discussed with the EOC staff how and when they would be established if needed. There were no schools, day care, or other special populations threatened by this accident. Again the Deputy Coordinator discussed and explained how the county would respond if they were needed. Patient tracking and status actions were not needed but were discussed in the EOC.

The Deputy Coordinator functioned as the EOC Operations Chief in an exceptional manner. She quickly analyzed and assessed the situation and effectively directed the response. Down times in the response were used to train and teach the new staff in the EOC. The Deputy Coordinator is very knowledgeable of CSEPP requirements and guidance and willingly shared knowledge. The Deputy Coordinator provided in-depth briefings and situation updates to the staff and on several occasions corrected incorrect information received in the EOC before it could negatively affect the response.

At 1152, the EOC received notification from ADEM that the emergency had been downgraded to a Level II, post only response, and at 1207, the County Coordinator decided to reduce the EOC staff to pre-accident levels.

Emergency Response Outcome 4 – CAI Hazard Mitigation

Not Applicable.

Emergency Response Outcome 5 – Protection

There are no primary or alternate Indoor and Outdoor Warning Systems utilized for CSEPP in the County. Although there were no protective actions required for the County, route alerting was discussed. Members of the England Police Department routinely perform checks on the homebound elderly/disabled and would conduct route alerting to nursing homes and day care centers during an emergency requiring notification.

There was no need to activate traffic and access control points; however, the pre-designated locations were discussed with new and experienced EOC members. Although no reception centers and shelters or school protective actions were needed, locations and contingencies for these operations were discussed.

Emergency Response Outcome 6 – Victim Care

Not Applicable.

Emergency Response Outcome 7 – Emergency Public Information

Public information duties were performed by EOC staff members. The Deputy Coordinator prepared and disseminated two news releases to inform the citizens of Lonoke County, ADEM, and the JIC that the County had no need to take protective actions. The first news release was published at 0904 and the second followed at 0925.

Lonoke County does not send a Public Information Officer (PIO) to the JIC. JIS was successfully demonstrated by information exchange and verification of facts on two occasions. The first occurrence was when the 0911 update indicated different affected zones than the incident notification form. The discrepancy was caught and corrected while developing the second news release. The correction was made and an accurate second news release was prepared and distributed at 0925. The second example occurred when an e-mail from ADEM questioned if or when Lonoke County was going to prepare an Emergency Declaration. The Deputy Director provided corrected information that the Judge had previously signed the proclamation and it had been faxed to ADEM at 0901.

Timely and accurate answers to inquiries for emergency public information were provided by the EOC staff. Two brand new environmental health EOC staff members properly and professionally handled the majority of the phone calls received in the EOC.

Emergency Response Outcome 8 – Remediation and Recovery

Not Applicable.

PRAIRIE COUNTY (PRA)

Emergency Response Outcome 1 – Prevention and Preparedness

The Prairie County Emergency Operations Plan (EOP) (Annex L) was updated to include the National Incident Management System (NIMS). This Protective Action Zone (PAZ) county has adopted NIMS for all incidents and emergency response stated in Annex L of the County EOP (Annex L, Chapter 2, Paragraph I).

The Prairie County Office of Emergency Management (OEM) and other agencies participate regularly in the annual Chemical Stockpile Emergency Preparedness Program (CSEPP) exercise, Chemical Accident/Incident Response and Assistance (CAIRA) exercises and other exercises to develop or improve response capabilities. The County Coordinator has conducted an effective training program for local responders. Community interest in supporting CSEPP has been exceptional with many participants attending classes. Training is conducted for law enforcement personnel supporting traffic control points, decontamination sites and shelters to increase their ability to respond to a chemical release. The Incident Command System (ICS), signs and symptoms of agent contamination, proper use of Personal Protective Equipment (PPE), and decontamination techniques are incorporated into local training.

An effective outreach program informs the public about methods of personal protection in the event of a release at Pine Bluff Arsenal (PBA). Calendars, brochures, and other helpful information are distributed to residents of Prairie County during public events. Emergency Management staff speaks at the county fair and other public gatherings.

WebPuff™ has recently been added. The Prairie County OEM receives daily work plans from PBA to keep the County Coordinator apprised of a potential Maximum Credible Event (MCE) based on the agent being transported, repackaged or inventoried that day.

Emergency Response Outcome 2 – Emergency Assessment

The notification of the accident at PBA was received at 0842 by e-mail and on the hotline telephone. An assessment was quickly made to determine if an immediate threat existed for residents of Prairie County. No protective action was deemed necessary. Effective coordination was made between Prairie County and Arkansas Department of Emergency Management (ADEM), PBA and CSEPP counties. Numerous updates were received from agencies by e-mail, fax, hotline telephone calls, news releases, state declarations and radio to keep the Emergency Operations Center (EOC) and community aware of the situation and how it might affect their community. Copies of these documents were distributed to EOC staff to keep them informed.

Emergency Response Outcome 3 – Emergency Management

Within 18 minutes of receiving the alert, the EOC was operational. Each staff member issued individual packets with maps, procedure guides, and necessary forms. The facility, recently damaged by fire, was adequate for an efficient response to a community emergency. It is well lit

with restrooms, a kitchen and provisions to support 24-hour operations. The County Judge presided as the chief elected official and provided an initial situation briefing. The EOC staff worked well together and responded professionally. A status board was maintained to keep the County Judge and other policy-makers apprised of the current situation. Large maps were posted that delineated the direction of the plume. All telephones, radios, automation equipment and fax machine worked effectively. The primary means of communication was by e-mail. Situation reports were distributed to other agencies and within the EOC.

Counties with which Prairie County has Memorandums of Agreement (MOA) called to provide timely information regarding their situation or to offer assistance, if needed.

At 0920, the County Judge drafted, approved and submitted a local disaster declaration to the ADEM based upon the developing scenario and concern for public health and safety. A representative from ADEM was an integral part of the EOC.

Emergency Response Outcome 4 – CAI Hazard Mitigation

Not Applicable.

Emergency Response Outcome 5 – Protection

The projected plume was from the northeast and it was quickly determined that there was no threat to Prairie County residents. Regardless, a protective action decision was made based on the current situation and an Emergency Alert Message (EAS) was broadcast to keep local residents informed in the event that the wind shifted and threatened the community. No protective action, traffic control points or other emergency measures were deemed necessary.

An EAS message was submitted to the local radio station at 0915 stating that no danger existed to local residents. They were advised to stay tuned to their EAS radio station for further updates and advisories.

Protection of the special needs populations, schools and day care centers was discussed in the EOC. It was determined that because of the direction of the plume and the likelihood that the threat would not reach Prairie County, activities at the convalescent homes, schools and the county jail would not be disrupted.

Emergency Response Outcome 6 – Victim Care

Per the Extent of Play Agreement, there was no demonstration of Victim Care.

Emergency Response Outcome 7 – Emergency Public Information

The County Public Information Officer (PIO) answered calls from concerned citizens. Updates were periodically provided to the media. Press releases were received from the Joint Information Center (JIC) and this information was provided to the media and members of the EOC.

Emergency Response Outcome 8 – Remediation and Recovery

Not Applicable.

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PULASKI COUNTY (PUL)

Emergency Response Outcome 1 – Prevention and Preparedness

The County Coordinator receives a daily work plan from Pine Bluff Arsenal (PBA) showing the Maximum Credible Event (MCE), protective action recommendation (PAR), and protective action decision (PAD). The County participates in quarterly PBA Chemical Accident/Incident Response and Assistance (CAIRA) and annual Chemical Stockpile Emergency Preparedness Program (CSEPP) exercises.

The County's current Emergency Operations Plan (EOP) is dated February 6, 2006. The plan is reviewed and updated annually.

The County has an active, continuing education and training program. Training includes position-specific and refresher training with cross-training available to key personnel. During the past year, the staff received extensive training in National Incident Management System (NIMS), Incident Command System (ICS) and the National Response Plan (NRP). Certified training records are maintained by the County.

The public learns about CSEPP through an active joint public outreach and education program with PBA that includes presentations at public meetings, distribution of published material and radio and television advertisements.

Emergency Response Outcome 2 – Emergency Assessment

The 24-hour warning point received initial notification of a Level IV Community Emergency at 0846, describing an accident at PBA with an explosion involving M 23 land mines and VX nerve agent. The notification indicated the wind was from 56 degrees at 4 miles per hour. The PAR was "none" (no action required) for Pulaski County. The 24-hour warning point notified the Emergency Operations Center (EOC) by telephone and fax. The EOC received confirmation from PBA at 0851 via fax. The EOC Director immediately briefed the staff and declared the EOC operational. WebPuff™ was used to monitor the plume data.

Emergency Response Outcome 3 – Emergency Management

The Pulaski County EOC staff was pre-positioned. Staff included full-time employees and volunteers representing 12 different agencies. The staff demonstrated activation of the EOC and notification of staff using established procedures for two, 12-hour shifts for 24-hour operations.

E-mail was the primary means of communication within the EOC. Staff demonstrated backup systems including land line telephone, cellular phone and two-way radios. Amateur Radio Emergency Service (ARES) communications capabilities were established and successfully

demonstrated. Activation points for the outdoor warning system are located within the EOC and the 911 Center. The EOC contains equipment including visual displays that adequate and appropriate for response to a Chemical Accident/Incident (CAI). The status board was promptly and accurately updated and proved of great benefit to EOC staff.

Activation of the outdoor warning systems was simulated, and the Communications Officer successfully demonstrated the activation process following established procedures.

The PAD for Pulaski County remained “none” (no action required) throughout the emergency. (Pulaski County expanded activity within their EOC to facilitate improving traffic control and evacuation plans. While this initiative is admirable, it did not provide for coordination with the other jurisdictions and entities.

The EOC staff was prepared to shelter-in-place and or evacuate, but this was not necessary based on meteorological data. The staff’s focus became two-fold: closely monitoring the situation using WebPuff™, and planning for potential evacuees, both exposed and not, traveling north from the Immediate Response Zone (IRZ) into and through Pulaski County.

EOC staff considerations included, but were not limited to, dispatching all available Arkansas State Police (ASP) troopers with push bumpers on the front of their vehicles to I-530, dispatching an ASP helicopter to monitor traffic flow, placement of sheriff’s deputies, marine traffic flow on the Arkansas River, availability of tow vehicles, vehicle parking, decontamination of contaminated vehicles, placement of mobile reader boards, writing and posting the messages for the reader boards, and requests for mutual aid. Staff based all PADs on “worst case” impact, and all decisions made by the EOC Director were the result of staff consensus. All EOC staff members performed efficiently and professionally.

Emergency Response Outcome 4 – CAI Hazard Mitigation

Not Applicable.

Emergency Response Outcome 5 – Protection

Per the Extent of Play Agreement, Pulaski County simulated all field play except medical activity at St. Vincent Hospital.

After reviewing the PAR, EOC management reviewed all available information and made a PAD based on a worst-case scenario. The PAD included three decontamination sites, three traffic-control points (TCPs), two reception centers and two shelters. Plans and procedures for school and special needs populations were successfully demonstrated. Patient tracking was demonstrated by the Medical Officer. The Public Information Officer (PIO) prepared and disseminated news releases. Activation of the primary outdoor warning system was simulated.

The Communications Officer successfully demonstrated the activation process following established procedures.

All decisions were made by EOC Command and Control after reaching staff consensus. PADs included establishing TCPs, decontamination sites, reception centers and shelters.

Emergency Response Outcome 6 – Victim Care

St. Vincent Infirmiry Medical Center (SVM)

St. Vincent Infirmiry Medical Center (SVM) responded to notification from the Arkansas Department of Emergency Management (ADEM) notification of an accident at PBA. The SVM Emergency Response System was activated by a “Code Charlie” page. The decontamination team demonstrated an expedient and well-rehearsed decontamination site assembly. Pre-entry screening was hindered because of a lack of knowledge of vital sign parameters. However, abnormal vital signs were identified. Communication difficulties between decontamination personnel and the Emergency Department (ED) delayed medical care. Twenty-six patients were processed and entered the hospital for medical care. Decontamination banding was not utilized. Non-ED staff knowledge of emergency protocols and plans was limited.

SVM is a 630-bed facility (330 beds currently staffed), including a 20-bed medical intensive care unit, a 20-bed cardiac care unit, and a 14-bed cardiothoracic surgery unit. The 20-bed Emergency Department (ED) sees approximately 25,000 patients annually. The ED is staffed with two physicians and six registered nurses during peak hours. In addition, one or two Hospitalists are present in the facility on a continuous basis.

Chemical Agent Pharmaceutical Inventory			
Antidote	Dosage Amount	Number	Expiration Date
Atropine	1 mg/ml vials	536	March 2006, September 2008
Atropine	0.4 mg/ml, 20 ml vials	55	March 2008
Atropine (lyophilized powder)	5 gram vials	2	November 2006
Atropine	1 mg/10cc syringes	185	November 2008
2-PAM Chloride	1 gram vials	174	November 2009, May 2010
Diazepam	10 mg/2ml syringes	250	August 2006
Lorazepam	2 mg/1ml vials	165	August 2006
Midazolam	2 mg/2ml vials	261	January 2007
Midazolam	5 mg/5ml vials	53	June 2007

SVM received first notification of an event at PBA by telephone communication from ADEM at 0857. A “Chemical Emergency” overhead page (designated by the hospital as a “Code Charlie”) followed.

Immediately following activation of “Code Charlie”, administrators assembled in the designated EOC conference room. Communication between the EOC and ED was established via push-to-talk radios. A media room was established in the designated area. Radio and cell phone communication was established between the media area and EOC.

In response to the activation of “Code Charlie”, the decontamination team immediately reported to the designated decontamination area and then split into two distinct groups. The first group began a rapid equipment setup, and the second group reported to the Personal Protective Equipment donning area and began pre-entry screening. Both teams completed their tasks in 20 minutes and received their first patient at 0953.

At 0938, the EOC received an update from the ED verifying a VX incident at PBA, categorized as a Level IV disaster. The EOC was informed of a communication from the Pulaski County EOC to the ED that 100 Mark I Antidote Kits would be delivered by the Arkansas Department of Health (ADH). The status of events in the ED, such as completion of decontamination setup and arrival of victims, was communicated in a timely manner. Information concerning the availability of beds, staff, and ventilators was obtained, and administrators demonstrated decision making in securing additional resources.

Several issues were identified during the course of the exercise. Communications were hindered between the decontamination team and the ED receiving staff because of a limitation of the existing radio system. Additionally, standards of patient care (e.g. neck immobilization, patient packaging straps) were not always used when required.

The decontamination team conducted its operations by protocol and in a safe manner. The triage team correctly categorized all injuries utilizing the Simple Triage and Rapid Treatment system. However, appropriate assessment of chemical agent exposure was not performed. As a result, unnecessary patient decontamination(s) occurred, leading to delays in patient care and needless expenditures of resources. The decontamination team utilized an aggressive work/rest cycle, strictly adhering to published standards with the assistance of a designated time keeper. Overall, the actions of the decontamination team demonstrated technical proficiencies in the setup and operation of the decontamination line. They are obviously a group of individuals committed to providing an important service to the community and are strongly supported by the hospital administration through staffing and training.

Within the hospital, the patients were promptly re-triaged and placed in an area appropriate to their level of illness. One physician and several nurses attended those triaged “minimal”. Each patient was constantly attended by an individually assigned nurse. One physician was responsible for those patients triaged “immediate”. Their medical care was appropriate and timely for their simulated illnesses. These patients also were constantly attended by an individually assigned nurse.

The final patient (# 26) cleared the decontamination line at 1040. At 1045, the hospital on-scene commander communicated with the Hospital EOC (and through them, the Pulaski County EOC).

It had been determined that no further patients were expected. The facility remained at full alert for an additional 30 minutes and then stood down at 1115.

Strength

Subject: Level of Training/Experience

Discussion: The SVM decontamination team performs four to six exercises annually in order to maintain a highly prepared decontamination team. Frequent practice and training resulted in a remarkable level of proficiency as observed in the setup of the decontamination line.

Observation

Subject: Mark I Antidote Kits

Discussion: No Mark I Antidote Kits were found within the hospital structure. There was no evident clinical need for Mark I Antidote Kits in this scenario; nevertheless, the ED received a telecommunication (0923) from the Pulaski County EOC indicating that ADH would send 100 Mark I Antidote Kits. The ED reported the arrival (simulated) at 0930.

Recommendation: Either ADH should provide Mark I Antidote Kits or ADEM should consider review of the need for and provision of Mark I Antidote Kits within Pulaski County medical facilities.

Observation

Subject: Substandard Medical Care

Discussion: A patient (presenting after a motor vehicle incident) complained of neck pain. There was no cervical protection provided at any time from arrival through ED disposition.

Recommendation: Standard of care must continue despite concerns of possible chemical contamination issues.

Observation

Subject: Delay in Medical Care

Discussion: One of the decontamination staff was instructed to simulate a myocardial infarction immediately after finishing a work cycle and being decontaminated (by protocol). Nevertheless, he was re-processed through the decontamination system, possibly delaying critical medical care.

Recommendation: Specific need for decontamination must be individually determined for each presenting patient.

Observation

Subject: Prescreening Decontamination Team Members

Discussion: Pre-screening identified two decontamination team members with abnormal blood pressures. However, workers taking the pressure did not have working knowledge of disqualifying entry criteria or a quick reference document to assist them in determining failing criteria.

Recommendation: Personnel performing prescreening must have working knowledge of disqualifying vital sign criteria. A quick reference document may be helpful.

Observation

Subject: Communication between ED and Hotline

Discussion: There were several failures in communication which resulted in delays in patient care. One example of this failure involved a patient identified as a possible heart attack at the initial triage, but the triage team was unable to relay this information to the ED. A second example involved a victim who had a compound fracture of the lower leg. After decontamination he was placed in the “cold” area for recovery by the ED team. The decontamination team was unable to notify the ED team of this and the victim waited approximately five minutes for transfer and further care. These failures in communication were caused by issues with proper radio function.

Reference: JCAHO Environment of Care Standard (EC).4.10.18

Recommendation: Consider appointing a Decontamination Team Leader in the work area. An individual appointed to control activities within this area could relay information in the event of a radio failure. Additionally, this person could ensure that patient flow remained steady through the line and act as a safety watch for all members of the team.

Observation

Subject: Unsafe Patient Transport and Lifting

Discussion: Victim #4 presented with a compound fracture of the lower left leg. After passing through the hotline he was placed on the ground (unsecured, on a backboard) in the “cold” area. Personnel from the ED were dispatched with a gurney to recover this victim and bring him to the ED. A lift of the victim was made by two, instead of four people.

Recommendation: Training on proper patient immobilization and lifting techniques must be reinforced for the safety of the patients and all staff personnel.

Observation

Subject: Triage Tagging System

Discussion: When questioned regarding the meaning of a red band, one disaster nursing staff member initially incorrectly explained that the red band indicated a chemically exposed victim. This staff member had been “borrowed”, per the SVM Emergency Operations Plan, from another department within the hospital. These nurses may not receive ED triage system training. Errors of medical care may result.

Recommendation: SVM should implement an in-service training program on tagging procedures used in emergency response operations. Display models of triage bands may be useful for quick reference during disaster events.

Baptist Health Medical Center – North Little Rock

Baptist Health Medical Center in North Little Rock did not participate in the 2006 CSEPP exercise.

Status of Previous FRCAs

❖ **Previous Finding Number: BMC05.6.1 New Finding Number PUL06.6.1**

Subject: Insufficient Training in Use of PPE -BMC

Resolved: No. .

❖ **Previous Finding Number: BMC05.6.2 New Finding Number PUL06.6.2**

Subject: Failure to Provide Safety Oversight - BMC

Resolved: No.

University of Arkansas for Medical Sciences Medical Center (UAMS)

University of Arkansas Medical Sciences Medical Center did not participate in the 2006 CSEPP exercise.

Status of Previous FRCAs

❖ **Previous Finding Number: UAM05.6.1 New Finding Number PUL06.6.3**

Subject: Control Zones not Established - UAM

Resolved: No.

Emergency Response Outcome 7 – Emergency Public Information

Pulaski County designated a new PIO, and this PIO successfully provided emergency information generated by the EOC to the citizens of Pulaski County. Additionally, the PIO contacted a local radio station and requested it broadcast information about the accident. The PIO prepared and disseminated protective action messages in the form of news releases. The PIO monitored news releases from the other jurisdictions and relayed the information to the EOC staff. The PIO professionally and accurately responded to inquiries from the media and the public. Appropriate communication with the JIC was maintained throughout the exercise. Pulaski County does not provide a representative to the JIC.

Emergency Response Outcome 8 – Remediation and Recovery

Not Applicable.

SALINE COUNTY (SAL)

Emergency Response Outcome 1 – Prevention and Preparedness

The Saline County Office of Emergency Management (OEM) has the capability to stay in contact with the Pine Bluff Arsenal (PBA) on a daily basis through the recently installed WebPuff™ program. Confirmation of this process is completed by e-mail from the State to the Saline County Emergency Operations Center (EOC). The current date on the Saline County Emergency Operations Plan (EOP) is March 08, 2005. The County staff utilizes public events to offer information to the public concerning the Chemical Stockpile Emergency Preparedness Program (CSEPP). Calendars are distributed to the population that could be affected by an accident at PBA. Saline County staff had training records available to show the ongoing effort to train and prepare the local fire, police and medical personnel to effectively respond to a chemical event. The training list contained 50 local personnel that ranged in training from ACTFAST to Hazmat Technician training.

Emergency Response Outcome 2 – Emergency Assessment

The Saline County OEM 911 Center received the initial notification, via the hotline telephone, from PBA at 0846. The initial event notification described an explosion involving VX nerve agent at PBA. Because the plume did not affect Saline County, no Protective Action Decisions (PADs) were made by the County Judge and County Coordinator.

Saline County received initial plume information from PBA via WebPuff™ at 0900. Changes and updates of hazard information were received and displayed on a big screen television in the EOC. This information was easily accessible to all EOC staff.

Emergency Response Outcome 3 – Emergency Management

After receiving the initial call from PBA, the 911 operator taking the information hand carried the notification form to the Saline County OEM Coordinator at 0850. The staff call-down started immediately after the handoff between the OEM Coordinator and the 911 operator was completed. The call-down procedure was completed by 0910. The County EOC was activated immediately and became operational at 0924 upon the arrival of the County Judge. There was good representation in the EOC including: the County Coordinator, County Judge, City of Shaw Fire Department, City of Bauxite, City of Benton Sheriff and Fire Department, Public Health, Saline Memorial Hospital/MEDTRAN personnel, Radio Amateur Civil Services (RACES) and Arkansas Department of Emergency Management (ADEM).

While the hotline was the main communication link between the EOC and PBA, additional notification means included fax, radio, e-mail and phones and amateur radio emergency services. The Arkansas State Police, Saline County Sheriff, Benton City Police, Saline County Fire and Saline County Emergency Medical Services monitored separate base stations in the EOC on their

own separate channels, enhancing interoperability between the various agencies in the EOC and the field operations. The RACES/Amateur Radio Emergency Services (ARES) served well as the technical person for communications and had the back-up communications available and maintained throughout the exercise.

The need for additional resources (i.e. personnel) from field operations was clearly communicated to the County Coordinator and EOC staff with a quick turnaround on supplying what was requested. An example of this occurred at 1101 when Saline Memorial Hospital (SMH) requested additional staff to help with decontamination operations and was supplemented with four emergency medical technicians by 1116.

The OEM Coordinator provided 15 regular, evenly spaced, thorough situation reports and shared briefings. This is a marked improvement when compared with last year's observation. Briefing information included plume data which was displayed for the EOC staff on the large screen TV.. Two white boards displayed event notification information, which was updated by the various agency representatives. Everyone was kept up-to-date with the status of the Traffic Control Point (TCP) and decontamination site operations at both City of Benton Fire Station and SMH. A Governors Declaration of a State of Emergency followed at 0931, which was followed by the Saline County's Declaration at 0945. EOC equipment malfunctioned twice; neither of these malfunctions resulted in a complete loss of functionality, because personnel effectively used back-up capabilities.

Observation

Subject: EOC Equipment

Discussion: EOC equipment malfunctioned twice: 1) The HP 2500CM Printer that was used to print the plume data from WebPuff™ ceased to function. After several attempts to fix the equipment, the staff turned to a backup, black-only printer to distribute the information throughout the EOC and 2) the Public Information Officer's (PIO) computer stopped working and could not be rebooted. Another computer had to be used which delayed additional information being sent to the Joint Information Center (JIC).

Recommendation: Both cases reflect a need for more up-to-date equipment. With the changing pace of technology, the staff needs to stay current to continue normal or emergency operations.

Emergency Response Outcome 4 – CAI Hazard Mitigation

Not Applicable.

Emergency Response Outcome 5 – Protection

The OEM Coordinator kept the population informed of the accident through numerous press releases. The press releases stated that the citizens of Saline County would not be affected by the accident at PBA. The population was instructed not to travel toward Pine Bluff in order to keep the roads clear for emergency personnel. This message was repeated seven times throughout the exercise.

As a precautionary action, the OEM Coordinator set up two decontamination and Traffic Control and Access Control Points (TCP/ACP) in the County for citizens that may have traveled through the plume. The sites were at Saline Memorial Hospital and at Smith and Market Street in Benton. Benton police officers were dispatched to set up traffic and access control points. Player traffic was stopped at each TCP/ACP and diverted into the decontamination sites.

The police officers that staffed the TCPs/ACPs did not have Personal Protective Equipment (PPE) nor did they have training in how to use PPE. This put the officers at risk, as they would be the first personnel to come into contact with potentially contaminated persons arriving at the TCP/ACP. The problem with the lack of PPE and training for law enforcement is a recurring observation from last year. Law enforcement officers that may be used to assist Jefferson County and work closer to an exclusionary zone need to be trained and equipped to the same level as the other jurisdictions.

It was not necessary to evacuate any of the special populations in Saline County; however, the EOC staff simulated notifying the special populations in the county. Per the Extent of Play Agreement, reception centers and shelters were not demonstrated.

Finding Requiring Corrective Action SAL06.5.1

Subject: PPE and Training for Law Enforcement

Discussion: The Benton police officer at the TCP/ACP did not check in with the Incident Command at the scene, either by radio or in person. The police officer had not received any training in the use of PPE nor had any been issued to him. The police officer could come in contact with simulated chemical casualties. This created a potential cross-contamination and safety issue. This was an Observation last year.

Reference: “Annex L CSEPP Emergency Plan Saline County EOP,” Chapter 10, II protective equipment, paragraph one, line two; Chapter 10 Annex L CSEPP Emergency Plan Saline County EOP, II protective equipment, paragraph three, lines 5 & 6; OSHA 29 CFR 1910.120(q) (4), 1910.120(q)(3)(iii) and 1910.120(q)(3)(ii)

Recommendation: Require and provide training and equipment for all law enforcement officers responding to TCPs/ACPs on the First Responder CSEPP level with the proper PPE. A protocol needs to be established on the type of PPE to be used by law enforcement to include: air purifying respirator and chemical protective suit.

Emergency Response Outcome 6 – Victim Care

The Benton Fire Department (FD) provides fire protection and Emergency Medical Services (EMS) to Saline County. The department consists of four stations staffed by career personnel who work on one of three shifts. In addition to their fire suppression training, the EMS training of the members includes Emergency Medical Technician at the Basic, Intermediate, and Paramedic level. Most members of the Benton FD are Hazardous Materials (HAZMAT) Operations level trained while the rest of the personnel maintain Technician level certification. They are the primary HAZMAT response team for Saline County. Although this is the first year that Benton FD has been incorporated into the CSEPP exercise, they effectively triaged, treated, and decontaminated four ambulatory patients and one non-ambulatory patient. In addition, the integration of MEDTRAN EMS was seamless from a personnel standpoint. However, a training differential was noted between the two services. The Transportation Officer and the Triage Officer from MEDTRAN EMS were trained to the Hazmat Technician level but were not supplied with the appropriate PPE to perform their assignment in an appropriate manner. The community personnel, who will continue to search for training opportunities, identified this point.

The CSEPP trailer that is housed at the Benton FD contains equipment that includes decontamination and patient treatment supplies. An inventory of the nerve agent antidote is displayed in the table below:

Chemical Agent Pharmaceutical Inventory			
	Dosage amt	# of	Exp. Date
Mark I Antidote Kits	-	30	May 2009

Mark I Antidote Kits are maintained in a climate-controlled environment within a locked storage cabinet in the Benton FD Station 1. The Fire Chief and CSEPP Coordinator for Benton FD said they had received Self Contained Breathing Apparatus (SCBA), radios, and various monitoring equipment from Office of Domestic Preparedness (ODP) grants. The monitoring equipment includes four-gas meters, two photo-ionization detectors, and M256A kits supplemented with M8 and M9 paper. They chose not to demonstrate the use of the monitoring equipment because they had not been trained on its proper operation.

The Benton FD received notification of an accident at PBA at 0859 through their 800 MHz radios and paging system. At that time, they deployed to the decontamination area in the vicinity of Smith and Main. They arrived at that location and began setting up their decontamination equipment at 0903. The Incident Management System (IMS) was established and key players, including the Incident Commander (IC) and the Safety Officer donned vests to identify their assignment. An adequate IMS structure was devised and a command chart was created and implemented. All of the responders had radios and were able to communicate effectively with one another. At 0918, a Benton police officer arrived in the vicinity of the decontamination area to establish a TCP. The Benton police officer had a radio which he could use to communicate with the IC but did not check in with the IC in person or on the radio.

The decontamination area was declared functional at 0950. The receiving canopy was located at the entrance to an area that was marked off by waist high tape and cones. This was where triage occurred and treatment with Mark I Antidote Kits was initiated, if necessary. A large inflatable tent was erected that could accommodate two lanes of ambulatory persons. One lane could be used for non-ambulatory decontamination, if needed. Warm water decontamination was demonstrated by the Benton FD. The post-decontamination water was pumped into a large “Fold-a-tank” with an estimated storage capability of approximately 3,000 gallons of water. A treatment area was marked. However, the canopies in this area provided little shelter from the elements. Members of MEDTRAN EMS who coordinated transport of the patients to local treatment facilities staffed this area. The MEDTRAN EMS personnel also maintained effective communications with the receiving hospital.

The setup of the decontamination site went smoothly and was accomplished in less than one hour. Benton FD experienced one problem with decontamination setup; there was a substantial amount of equipment that required electricity. This equipment included the command equipment trailer, hot water heater, scene lights and gray water pumps. The demand for electricity for this equipment far outweighed the ability of Benton FD’s single generator.

There were a number of items that required electrical power to function at the decontamination site. The Benton FD stated that their CSEPP equipment includes only one generator. The equipment that required electricity included the hot water heater, scene lights, gray water pump, and the equipment/command trailer. The additional non-CSEPP equipment that has been added to the command trailer has put more burden on the generator than was planned for.

The IC received information on the radio from the EOC at 0912 that the accident at PBA involved VX nerve agent. The Safety Officer was briefed about VX by the IC. It was their joint decision to downgrade from SCBA to Powered Air Purifying Respirators (PAPRs). Despite this information there was no site briefing involving the entire decontamination team. There were six responders suited in PPE. Each responder was pre-screened prior to donning PPE.

The first patient arrived at the triage area at 0954. The patient complained of confusion and a runny nose after potential exposure to an unknown chemical. Pupil constriction was present. This patient was initially triaged and marked with a yellow triage ribbon. One Mark I Antidote Kit was administered with subsequent marking with an orange band. This patient was then processed through the decontamination tent and sent to the treatment area and then transported to Saline Memorial Hospital (SMH). Three additional ambulatory patients were effectively triaged and processed without difficulty. The patients averaged approximately four minutes each through the decontamination process. They received a colored triage ribbon, based upon their priority, and they also received orange bands indicating the number of Mark I Antidote Kits that were simulated. They did receive blue colored bands indicating they were processed through decontamination, as per the Saline County Emergency Response Plan.

The one non-ambulatory patient presented some difficulty for the Benton FD decontamination staff. The staff had a difficult time carrying the back-boarded non-ambulatory patient from the triage area to the decontamination tent. Pre-placement of equipment, such as stretchers and

stretcher carts, could have expedited patient processing and alleviated this problem. Such equipment would benefit not only the patient, but also the team that has to triage and move the patient. This need was identified by the team performing triage in the hot zone.

The Safety Officer and Decontamination Officer did not know if their policies outlined the stay times of responders in PPE. The Benton police officer who staffed the TCP was briefed that there had been an explosion at PBA by his Lieutenant, but he was never told that there was a release of any nerve agent. The police officer had not received any training in the use of PPE nor issued any PPE. The police officer at the TCP came in contact with five persons purporting they had been exposed to something in a cloud from the Arsenal. This lack of PPE and training created a potential cross contamination and safety issue.

The last patient was transported to SMH at 1018 and crews went through technical decontamination and post-entry medical screening at 1027.

Observation

Subject: PPE for MEDTRAN EMS Providers

Discussion: The personnel from MEDTRAN EMS played integral roles in the IMS at the decontamination site. They could come in contact with potentially contaminated patients who self-evacuate to the site prior to decontamination. Several of the personnel from MEDTRAN EMS were trained to the Hazardous Materials Technician level; however they maintain no PPE on their units.

Reference: CSEPP Planning Guidance Appendix H (2)(C) Planning Guidance for emergency Support of Operations; OSHA 29 CFR 1910.120 (g)(5)(iv)

Recommendation: Such protection would be necessary if there were an influx of contaminated patients who seek medical attention at a decontamination site. Furthermore, additional training between the Benton FD and MEDTRAN EMS personnel could integrate their agencies and, if appropriate PPE were available, allow for the MEDTRAN EMS personnel to support the Benton FD decontamination process.

Observation

Subject: Trip Hazards

Discussion: A significant number of electric cords ran from the generator to the decontamination tent. In addition, several hoses spanned from the source to the tent. This created a substantial trip hazard.

Recommendation: The Safety Officer noted that an attempt would be made to look into some type of device that would secure all of the loose cables and hoses to prevent the trip hazard. This would eliminate a safety concern for both the patients as well as the emergency personnel on the scene.

Observation

Subject: IMS Support Material

Discussion: Although the IMS structure was very effective, the documentation of such was on pieces of office paper with no job descriptions or standard layout.

Recommendation: A dry-erase board with a designated command structure may be useful on the CSEPP trailer. Much like the mitigation of a structure fire, the IC could maintain a large chart to track equipment, supplies, and, most importantly, personnel. Specific job descriptions also would be useful. These could be handed out to individuals who assume various functions within the IMS and would therefore ensure an effective breakdown of responsibilities and a unity of command.

Observation

Subject: Standardized Triage Process

Discussion: Between both the Benton FD and MEDTRAN EMS, a standardized triage process was not clearly identified. While this was not a Mass Casualty Incident (MCI), START Triage would still be applicable with a modification to include chemical agent exposure considerations. Walking patients were tagged yellow in some cases and red in others. This was based on individual assessments from various training levels.

Reference: CSEPP Planning Guidance Appendix I (III) (6), (IV) (2)

Recommendation: Train all field response personnel (including fire, EMS and law enforcement) in the basics of triage, according to a standardized system. Such a system should include considerations for those patients that may present with potential chemical exposure. With all entities trained in this concept, there will be limited confusion and re-triage among the different echelons of care.

Saline Memorial Hospital (SMH)

Saline Memorial Hospital (SMH) is a 167-bed facility. The hospital's Emergency Department (ED) consists of nine beds and is staffed with one physician, two Registered Nurses (RN), one unit secretary, and an additional RN during peak hours. In spite of numerous reported recent personnel changes, the staff appeared capable of performing the essential command and control functions utilizing the Hospital Emergency Incident Command System (HEICS). The hospital maintains a current stock of CSEPP-related antidotes.

Chemical Agent Pharmaceutical Inventory			
	Dosage amt	# of	Exp. date
Atropine	625 mg	25 vials	Mar. 08
Atropine	400 mg	4 injectors	
2-PAM Chloride	66 gm	1 gm vials	Nov. 09
Mark I Antidote Kits	0		
Diazepam	30 mg	2 ml vials	

SMH responded to a hospital-generated side-scenario involving a school bus that drove through an unidentified vapor cloud and was subsequently involved in a motor vehicle accident. The hospital decontamination function, in contrast to EOC HEICS functions, appeared significantly understaffed in relation to the number of patients. The hospital fielded six employees dressed in Occupational Safety and Health Administration (OSHA) Level C personal protective equipment (PPE) consisting of chemical protective suits, boots, gloves and powered air purifying respirators (PAPRs) with loose-fitting hoods. These personnel performed hot zone triage and decontamination duties in teams of two, with a stay time of approximately 15 minutes followed by a rest cycle. These two-person teams performed triage, simulated transfer of casualties to hot side triage holding areas, moved patients into ambulatory or non-ambulatory decontamination tent lanes, simulated the decontamination process, and forwarded patients to the post-decontamination shelter where other personnel performed additional triage, processing, and transfer to the Emergency Department (ED).

The decontamination equipment was assembled in an atypical location because of road construction that interfered with access to the normally designated hospital decontamination location. This non-standard location required additional movement of decontaminated patients to the ED.

SMH simulated decontamination of 15 ambulatory and non-ambulatory patients. In addition, five patients decontaminated at the TCP operated by the local fire department were received and treated in the ED.

At 0905, a message via EMS was received in the ED reporting the CSEPP Exercise had begun. Shortly thereafter, it was reported that there was a release of VX from PBA with an unknown number of patients. An overhead announcement of “Operation Alert” was made at 0937 in accordance with the hospital emergency management plan.

Within several minutes, staff began arriving in the ED to assist in disaster operations. The roles of arriving staff were made delineated by wearing of labeled vests. Those arriving included staff from Transportation, Radiology, Intravenous Therapy, and the Blood Bank. The nurses working in the ED donned vests labeled “Triage Team”. Additional personnel arrived to register arriving patients with pre-packaged Disaster Patient packets. Simultaneously, personnel functioning in the role of Security arrived to the ED. They wore vests identifying their functions.

The IC and the EOC staff arrived at the hospital EOC within five minutes of the loudspeaker announcement of a “disaster alert”. The IC received a short briefing from the person in the EOC,

made early critical decisions, and immediately organized staff. A count of available beds at SMH was received seven minutes after the disaster announcement.

The EOC was located in an office near but separate from the ED. The area was small and too confining to provide a work area for a fully functioning operations center. There was one computer, only one telephone line and one fax machine. No whiteboards or other visible means of managing tasks were employed for situational awareness. The EOC staff had radios but did not appear to be familiar enough with them to make them a viable means of communication. More training may be needed for radio communication. Each of the EOC staff had a cell phone that was used for the primary means of communication both within the hospital and to external agencies.

A security person reported “lockdown complete” to the IC at 0948 and further stated that only two entrances to the hospital remained open. Both of these doors had individuals assigned to regulate entry into the facility. In addition, an information officer was present at the main entrance, with an identifying armband, to direct reporters to the conference room prepared for them. This conference room was in the front of the hospital (away from the ED and patient care areas). Near the designated media room was a conference room reserved for family members and friends of patients. A staff person was reported to be assigned to this room to attend to the family and other concerned personnel.

During the same period, hospital decontamination personnel received medical pre-screening, consisting of vital sign measurement, with results for each member recorded on an individual pre-established form. The team staged in a lounge area of the hospital lower level, and was notified in person at 0938 that the hospital disaster plan had been activated. They then proceeded to the hospital decontamination area and began setup of decontamination shelters and related equipment. Activities included placing and inflating shelter tents, establishing a color-coded hot-side triage area, with selected personnel donning identification vests (safety officer, site security personnel). Decontamination corridors were marked with large red cones and yellow barrier tape. There was no clearly discernable hotline.

Following assembly of decontamination equipment, team members began checking and donning their PPE at 1011. Two patients from the field decontamination site arrived at 1012 via ambulance. These patients were clad in post-decontamination secondary garments (plastic coveralls), and wore colored tape on their wrists, including orange (indicating they had received Mark I Antidote Kits), blue (indicating they had been decontaminated), and yellow and red (respectively, indicating one patient had been triaged at the scene and categorized as immediate, with the other being designated as delayed). SMH does not possess any Mark I Antidote Kits. They have bulk vials of Atropine and Pralidoxime Chloride which would require reconstitution before intravenous administration. Neither of these antidotes was available at the decontamination site.

These patients were escorted from the decontamination area by a hospital person not clad in PPE and were moved to a heated building area because it was cool outside. The hospital representative indicated that these patients would have been re-decontaminated if they had been actual casualties. Hospital personnel forwarded three additional casualties from a second

ambulance directly to the ED without passing through the hospital decontamination site, also as a comfort measure. A total of 20 patients arrived at the SMH decontamination station; 18 were transferred to the hospital, where they were assessed and treated appropriately. The remaining two casualties were assigned to the “expectant” triage category by a hospital representative on the clean side of decontamination, and remained at the decontamination station exit throughout the emergency.

At 1020 the first media inquiry was provided to the IC. This was an inquiry from a local radio station asking about symptoms, antidotes and long-term effects from nerve agent exposure. The IC immediately referred the inquiry to the public affairs person for the hospital. The PIO gave an excellent response without hesitation. Additional inquiries about specific patients and the status of the hospital (i.e. how many patients had been received and how many had been evacuated) were presented. The PIO consulted with the hospital administrator and returned with a concise statement that did not identify patients or specific numbers but did provide suitable information with a promise to continue providing updated information as it became available.

The hospital EOC, as decontamination operations were continuing outside the facility, relayed to the ED that two patients were en route with three to follow shortly thereafter via EMS. Several minutes later, two patients arrived at the ED Triage area via MEDTRAN ambulance from SMH decontamination area. These patients were assessed by the Triage Team and assigned to a room in the ED for evaluation and treatment. At 1026, the first patient was transported to a treatment room via wheelchair.

Two hospital personnel were fully suited (also at 1026) and proceeded to the decontamination area. Simultaneously, five additional patients arrived. As these patients were undergoing triage and simulated decontamination, one decontamination team member became dizzy and felt ill, simulating the onset of heat strain. This player immediately told his partner, and they both left the decontamination area and proceeded to simulated technical decontamination. They did not notify the Safety Officer that this had occurred, and the Safety Officer, apparently unaware that they had already begun to exit the area, requested that they rotate out on the established 15-minute schedule as they finished technical decontamination. During this period, four additional personnel were staged partially dressed (to the shoulders) in PPE inside a building adjacent to the decontamination area. Two freshly suited responders entered the decontamination area at 1043. The first (exiting) team proceeded to the staging area, doffed PPE to the waist, rested and received post-entry screening and rehydration. The Safety Officer noted that one team member appeared to have elevated blood pressure and stated that this individual would not be allowed to return to PPE that day.

The second decontamination team rotated out of the hospital decontamination area at the direction of the safety officer at 1056, doffed PPE to the waist, received post-entry screening, and began rehydration. They were replaced by a third, two-person team. At 1056, as patients continued to arrive, the IC was unable to advise who was maintaining a roster of patients, their status and their locations for the region to facilitate tracking them during to and among various area medical treatment facilities. Neither the Safety Officer nor anyone at the county EOC maintained such a roster.

The last patient exited the hospital decontamination area at 1107. The third decontamination team entered technical decontamination at 1108. Decontamination site disassembly began at 1113.

Communication was made from EMS to the ED advising them of the arriving patients and their status. After decontamination was complete, both ambulatory and non-ambulatory patients were transferred to the ED via a hospital ambulance. Because of the temporary relocation of the decontamination site, the ambulance filled the roll of safely moving patient up to the clean entrance of the hospital. Patient care continued inside the ambulance by paramedics with little interruption. The paramedics used the ambulance radio to update the ED regarding patients presenting to the SMH clean entrance. Patients were quickly and correctly triaged and sent to various departments of the hospital based on their medical needs.

Strength

Subject: Patient Property Tracking

Discussion: It was noted that during the decontamination process, patient belongings would be placed in a pre-numbered bag with a corresponding numbered wristband. Though disrobing of patients was simulated, the decontamination site was set up and ready to receive and tag each patient's personal belongings. The band would be placed on the patients' wrist. This would allow the opportunity for the patient to retrieve personal belongings. The patients also would receive a patient record number in the ED that would correlate with their medical record.

Observation

Subject: Insufficient Decontamination Personnel

Discussion: The decontamination team consisted of six personnel who were capable of dressing in OSHA Level C PPE. They rotated two team members at a time to the decontamination area. The two were tasked with triage and decontamination of the patients. Ultimately the decontamination team received 20 patients. As a result, all decontamination processes were discussed rather than simulated or demonstrated.

The decontamination site should be staffed with enough personnel dressed in PPE for safety and decontamination of ambulatory and non-ambulatory patients. SMH reportedly had about 20 personnel trained to be on the decontamination team. Seven personnel responded; one was medically disqualified; the remaining six dressed out in PPE. Personnel stated the hospital has difficulty finding volunteers for the team.

As a result of limited personnel in PPE, vague simulation and discussion were rampant throughout the decontamination process. Personnel could not immobilize or transfer non-ambulatory patients, and critically injured patients had to wait while ambulatory patients were processed through decontamination.

Recommendation: Having at least four personnel dressed in PPE, and the required similar number of PPE-qualified backup personnel, would greatly improve the safety and efficiency of decontamination and patient care. Provide additional training opportunities regarding PPE and the decontamination process. Discuss strategies for increasing hospital personnel participation in the decontamination team.

Observation

Subject: Lack of Effective Triage

Discussion: Patients presenting to SMH were not triaged for decontamination or post decontamination for treatment priority. During the decontamination process, critical patients waited while non-urgent patients were processed. Some hospital personnel appeared confused regarding what each of the colored bands represented. Lack of decontamination personnel and understanding of the triage process limited appropriate care to all patients. Not having an understanding of the triage process and limited personnel resulted in a delay in patient care.

Recommendation: Critical patients should be decontaminated before non-urgent patients in the hospital setting. Increase the number of trained personnel who can dress in PPE, and provide additional training in the triage process.

Observation

Subject: Communication of Decontamination Team

Discussion: During the decontamination process, the Safety Officer did not have constant contact with the decontamination team members in PPE. One decontamination team member became light headed, suffering from dizziness and nausea (simulated). This information was not communicated to the Safety Officer. As a result, the decontamination task was interrupted because of the insufficient flow of information.

Recommendation: Implement a form of communication with the Safety Officer and the decontamination team, such as radios that are compatible with PPE.

Observation

Subject: Teamwork in PPE

Discussion: Hospital decontamination team members in OSHA Level C PPE exhibited partial but suboptimal teamwork orientation while working in PPE. Two-person triage/decontamination teams strived to stay together and always entered and exited the warm and hot zones together, displaying an excellent effort not to leave any employee in PPE in a hazard area alone. However, some operations could have been accomplished more effectively through team cooperation, and this was not evident. Examples observed included two teams that performed technical decontamination by simulating

decontamination of themselves simultaneously rather than a more effective practice of decontaminating each other sequentially. An additional example was seen when one team member's PAPR battery became disconnected and fell to the floor of the decontamination shelter, leaving the member in a loose-fitting hood with reduced ventilation and vision slowly becoming impaired by visor fogging. The team member initially searched for the battery and the wire to which it attached, but soon stopped and continued decontamination activities. Ideally, this member should have requested partner assistance in locating the fallen battery and reattaching it, as the team member would have found locating the proper battery connection for the PAPR significantly easier.

Recommendation: Additional training and practice for hospital decontamination team, with emphasis on cooperative teamwork techniques to increase safety and efficiency while working in PPE.

Observation

Subject: Decontamination

Discussion: A hospital representative took control of two patients who had obviously been decontaminated, arriving damp and clad in paper coveralls with blue wrist band identifiers applied by the fire department field decontamination team. The hospital representative stated that the patients would be decontaminated again before being admitted to the hospital. This appears to indicate that the hospital considers field decontamination inadequate (though observers in this case reported that the field decontamination of the patients was performed in a very thorough and professional manner).

Decontamination is a process that is not without risks to patients. The potential for weather exposure, falls, and other hazards should ideally be balanced against the risk of patients harboring toxic contamination. To decontaminate, as a matter of institutional policy, patients who have obviously already been decontaminated would appear to expose both the patient and the hospital to unnecessary risk.

Recommendation: Coordinated and collocated training and exercising involving both hospital and field agency decontamination teams would help assure hospital personnel that field decontamination may be sufficiently effective to make repeated decontamination, and the risks associated with it, unnecessary.

Observation

Subject: EOC Communications

Discussion: Cell phones were the primary means of communication. Hand-held radios were available for in-house but were used to a limited extent. The presence of only one land line prohibited access to telephones by more than one person at a time.

Recommendation: A workspace with telephone wall jacks for each of the EOC staff would allow communications via this method instead of relying on cell phones. Each of the EOC staff needs to be trained in the use of the available hand-held radios. Other key members of the response should also know how to use these radios.

Observation

Subject: Patient Tracking Information Conveyed to County EOC

Discussion: The system of tracking patients within the hospital meets acceptable standards. However, the IC did not know if patients were being reported to the county EOC so they could be tracked centrally. He inquired about a central tracking system coordinated with the county EOC, but was told that wasn't being done.

Recommendation: Families and friends will inundate the individual hospitals with inquiries about patients' whereabouts and medical status. There should be a central repository of patients' names and other identifying information to direct family and next of kin to specific medical facilities. For children, unconscious patients and deceased individuals a digital photo could be very important to locate individuals

Emergency Response Outcome 7 – Emergency Public Information

Seven news releases were generated by the PIO and faxed to the JIC. After receipt of each fax, the PIO called the JIC for confirmation. News release #3 had incorrect plume direction, but at 1008 with additional coordination with the JIC, the correction was made on news release #4 and submitted to the JIC at 1015. Although the PIO coordinated information accuracy with the JIC news release #5 had some discrepancies with the involvement of the school bus accident in relation to the accident at PBA. It was stated that the school bus traveled in the area of the plume when the plume never made it off-post. In news release #6 it was stated that the two deaths were connected to the accident at PBA, but this was later corrected at 1150 in news release #7, again with good coordination with the JIC. In addition to the PIO not reviewing each release for accurate information prior to being sent to the JIC, it appears that the SMH scenario was incorporated into the CSEPP portion of the exercise. This caused a lot of confusion on the news releases and situation report. This event did bring to light a need for checklist procedures to maintain a proper quality check of the news releases that is not identified in Saline County's Plan.

Emergency Response Outcome 8 – Remediation and Recovery

Not Applicable.

ARKANSAS DEPARTMENT OF EMERGENCY MANAGEMENT (ADEM)

Emergency Response Outcome 1 – Prevention and Preparedness

The Arkansas Department of Emergency Management (ADEM) receives daily operations work plans from Pine Bluff Arsenal (PBA) via WebPuff™. Work plan updates are received throughout the day via e-mail. The PBA hotline is checked during each shift, every day. ADEM receives notification from PBA and forwards that information to the Protective Action Zone (PAZ) counties. The counties are then responsible for making Protective Action Decisions (PAD) for their citizens.

Change 2 to Annex S of the State Emergency Operations Plan (EOP) was approved on January 13, 2006. Hard copies of the plans and procedures are maintained in the Emergency Operations Center (EOC). Electronic copies are kept on file servers in the EOC for retrieval from any work station. Additionally, the EOC maintains copies of signed, current Memorandum of Understanding (MOUs).

ADEM personnel actively participate in the Chemical Stockpile Emergency Preparedness Program (CSEPP) exercise program. Exercise planning meetings with the communities and PBA began in March 2005 for the 2006 exercise. ADEM personnel participate in quarterly Chemical Accident/Incident Response and Assistance (CAIRA) exercises. They also meet with the Citizen's Advisory Committee (CAC). ADEM oversees and conducts training programs for local emergency responders. Three to four training classes a month are offered on topics ranging from chemical awareness, personnel protective equipment, hazmat awareness/operations to medical awareness. Graduating students receive continuing education credit as well as proof of certification. ADEM maintains a database of students and training classes.

An active ADEM and PBA joint public outreach and education program is in place. The Arkansas Emergency Preparedness Calendars (CSEPP calendars) are mailed to the Immediate Response Zone (IRZ), distributed at community events, and made available for distribution to local offices of emergency services. "Glove box" emergency preparedness brochures are also distributed. These items contain information about protective action zones, evacuation routes, contact numbers for county emergency management, and designated reception centers. In addition, the calendar contains more information about the chemical stockpile, warning methods, sheltering, information about school children, pets, special needs people, and how to make a family plan. ADEM also maintains outreach information on its website. An ad agency has been contracted by ADEM to conduct an awareness media campaign. CSEPP educational items are available for handout at various events.

Emergency Response Outcome 2 – Emergency Assessment

At 0848, ADEM was notified of a Level IV accident at PBA via the CSEPP telephone hotline located in the Communications Center next to the EOC. ADEM polled the PAZ counties to

verify receipt of the notification and to ascertain if the counties had any questions. A Communicator posted the notification form to the e-mail distribution list, “CSEPP Activities,” on the EOC’s file server. CSEPP jurisdictions and support agencies are able to view “CSEPP Activities” and communicate via this system. Following the initial notification, the designated ADEM Incident Commander directed the Communications personnel to complete call down of the staff to activate the EOC. Using their procedures and checklist, the Communicator notified ADEM staff members by page, e-mail, and/or telephone calls.

The EOC Hazard Analysts used WebPuff™ to monitor the plume. ADEM collects requests for assistance but does not deploy monitoring and sampling teams. ADEM was notified that Jefferson County requested Real-Time Analytical Platform (RTAP) monitoring.

Emergency Response Outcome 3 – Emergency Management

The staff was informed there would be two shifts established to run the EOC on a 24-hour basis. WebPuff™ was activated and meteorological data was plugged into the system to reflect direction and movement of the plume along with mapping of those counties that were in the predicted down-wind hazard area. Pertinent information was captured electronically. This information was displayed on a screen so that personnel in the EOC could view activities being reported in the counties as well as requests coming into ADEM. Appropriate notifications were made to the counties. The ADEM Incident Commander notified the Governor and kept him apprised of the accident throughout its duration.

The EOC was fully activated at 0922, with personnel in place and all equipment and systems working. Because this was a Level IV accident, the EOP required full activation. This facility is staffed at an operational level on a 24/7 basis. An ADEM liaison was dispatched to the PBA EOC.

Command and Control was conducted in accordance with Unified Command as reflected in the National Incident Management System (NIMS). The staff retrieved their EOC Standard Operating Procedures (SOPs) upon arrival in the Operations Center. The facility housing the EOC is secured at all times, and security was maintained throughout the accident.

Early into the accident, ADEM received an oral declaration of an emergency from Jefferson County. Oral declarations were also received from Dallas and Arkansas Counties, along with a written declaration from Grant County. Prairie, Cleveland, Lincoln, Saline, Lonoke, and Pulaski Counties submitted subsequent oral and written emergency declarations.

PBA requested very little support, but ADEM was prepared to assist. The Incident Commander (IC) assigned three personnel to work as Event Managers assigned to specific counties. These Event Managers tracked the activities of their designated counties and reported significant events and requests to the Incident Commander. They also posted all activity electronically.

Activation of an Emergency Management Assistance Compact (EMAC) was discussed, though was not required for this accident. Emergency Management Liaison Officers (EMLOs)

representing the Arkansas Department of Health (ADH) and Human Services. American Red Cross (ARC), National Guard, Arkansas State Police, Radio Amateur Civil Emergency Services (RACES), Arkansas Highway and Transportation Department., Arkansas Department of Environmental Quality (DEQ), the US Army Corps of Engineers and a representative from the Department of Homeland Security (DHS) were present in the EOC. After information was received identifying the agent, there was a lengthy discussion among the Incident Commander, the National Guard liaison, the Arkansas DEQ representative, and the Event Manager in charge of Jefferson County, as to how they could ascertain when the scene would be considered safe for individuals to leave shelters and evacuate the affected area.

The IC briefed personnel on a regular basis during the accident. At times when critical accident information was received, announcements were made and the information was disseminated to the staff.

At 0927, ADEM orally requested the Governor declare a State of Emergency; written approval followed at 1025.

Emergency Response Outcome 4 – CAI Hazard Mitigation

Not Applicable.

Emergency Response Outcome 5 – Protection

PADs were made by the affected Counties, which then submitted copies to ADEM. Event Managers at the ADEM EOC maintained contact with their designated counties and tracked the PADs. This information and all other communication were tracked electronically and were accessible by all staff. Requests for assistance were assigned for action to the appropriate individual in the EOC. These requests also were tracked electronically, projected on a screen at the front of the EOC, and removed from the screen as tasks were completed. The ADEM Situation Reports continually scrolled on another screen located at the front of the EOC and could be easily viewed by anyone in the room.

After the plume was redefined and the event lowered from Level IV to Level II, the EOC staff continued to monitor the situation, remaining in contact with the affected counties. No further PADs were received.

Emergency Response Outcome 6 – Victim Care

Not Applicable.

Emergency Response Outcome 7 – Emergency Public Information

ADEM issued a news release announcing the activation of the State EOC at 0920. The ADEM Public Information Officer (PIO) reported to the Joint Information Center (JIC) in Jefferson County at 0929. The JIC became operational at 0958. Three EOC staff members continued the public information function at the ADEM EOC and coordinated information with the ADEM PIO at the JIC. ADEM EOC personnel maintained contact with the ADEM PIO at the JIC via cell phone and e-mail. ADEM EOC personnel fielded calls from the media and public and referred callers to the appropriate agency or the JIC if required. The first news release from the JIC was received at ADEM at 0940. All news releases were posted to “CSEPP Activities” for access by all EOC staff.

Emergency Response Outcome 8 – Remediation and Recovery

Not Applicable.

JOINT INFORMATION CENTER (JIC)

Emergency Response Outcome 1 – Prevention and Preparedness

Not Applicable.

Emergency Response Outcome 2 – Emergency Assessment

Not Applicable.

Emergency Response Outcome 3 – Emergency Management

Not Applicable.

Emergency Response Outcome 4 – CAI Hazard Mitigation

Not Applicable.

Emergency Response Outcome 5 – Protection

Not Applicable.

Emergency Response Outcome 6 – Victim Care

Not Applicable.

Emergency Response Outcome 7 – Emergency Public Information

The Arkansas Joint Information Center (JIC) is set up during emergency situations to coordinate the dissemination of emergency public health and safety information. A core Joint Information System (JIS) coordination team of Public Information/Affairs Officers (PIOs/PAOs) from the Pine Bluff Chemical Activity (PBCA), Arkansas Department of Emergency Management (ADEM), Arkansas Department of Health and Human Services (ADH), two Immediate Response Zone (IRZ) counties (Jefferson and Grant) and eight Protective Action Zone (PAZ) counties operate the JIC for an accident at Pine Bluff Arsenal (PBA). All jurisdictions and agencies, except the eight PAZ counties, send representatives to the JIC. PAZ counties participate in the coordination process through the JIS. The JIS functions to facilitate accurate and timely emergency information from the beginning of the initial response through re-entry and recovery activities.

The Arkansas JIC continues to improve the JIS to provide clear, consistent, and timely emergency public information. JIC staff has made great strides in recent years to ensure JIS partners share information via a highly evolved e-mail distribution system. Unfortunately, local hospitals did not participate in the JIS by coordinating response information with the JIC prior to releasing information to the media and public.

The Arkansas JIC was adequately equipped and staffed. Every PIO had an assistant, and every function was staffed sufficiently. There were workable operations plans and standard operating procedures that, with some minor updates, could clarify job descriptions and improve staff efficiency. The JIC staff included a healthy mix of experienced PIOs and support staff and first-

time JIC responders who enthusiastically performed their jobs. The staff demonstrated a tremendous spirit of teamwork and desire to provide timely and accurate emergency information in a crisis.

The JIC Operations Chief arrived first at 0847. JIC staff began arriving at 0856. The JIC received the first EAS message from Jefferson County at 0859. Problems with password changes caused an initial delay in the JIC's ability to receive and transmit information. A security guard arrived at the JIC at 0900. The security guard provided security and screened arriving JIC staff. A lack of consistent ID badges made it difficult for JIC staff to identify key positions within the JIC. Larger, identical badges or vests with job titles could alleviate this confusion.

The JIC was declared operational at 0940, and a news release stating such was sent to the media at the same time. The JIC Manager held a staff briefing at 0941 to announce the JIC was open. The briefing also included the following information: 1) zones A and J were not affected, 2) White Hall High School and Moody Elementary were overpressurizing and would stay sheltered in place until receiving an all clear, 3) persons who had sheltered-in-place could come out, but anyone that had evacuated from those zones would not be allowed to return until air sampling was completed, and 4) the Jefferson County Judge declared a State of Emergency for the county at 0910.

Media liaisons were staged in the news conference area of the JIC to handle requests from media working out of the JIC. The news conference area doubles as the day-to-day office of the Jefferson County PIO. When the JIC is activated, all incoming calls intended for phone teams also ring on the Jefferson County PIO office phone. At 1023, mock media waiting in the JIC media area listened to a public caller leave a message on the answering machine. The caller, who provided her name and phone number, expressed concern about her son's medical condition being related to the accident at PBA.

Three people staffed the media monitoring and analysis function in the JIC. The room was sufficiently equipped with televisions with VCRs, radios with tape recorders, and a computer. All media stories were received via the CSEPP Hotline. The media monitoring team provided written analysis for 13 stories (six radio and seven print) and five news releases from other jurisdictions.

The JIC's 1230 news conference provided an excellent opportunity for officials from PBA, Jefferson County, ADEM, ADH, the Red Cross and Grant County to clarify earlier rumors and misinformation. Coordination between the primary spokespersons involved with the news conference—the Chemical Activity Commander and the Jefferson County Emergency Management Deputy Coordinator—began as soon as both had arrived at the JIC. Potential conflicts had been discussed and resolved prior to the news conference pre-brief. Spokespersons and PIOs held a news conference pre-brief at 1214. The order of speakers, key messages, probable media questions, and how the facilitator would introduce presenters were discussed. They did not discuss logistical information such as news conference facilitator, ground rules, anticipated length, type of media present, and whether there would be a post brief.

Status boards located in the main PIO room, the public and media phone rooms, and the media monitoring room were updated regularly in the beginning. However, as the emergency progressed, the level of accuracy on status boards decreased. For example, incorrect information regarding students from Saline County was placed on the status boards. At no time was information from Grant County regarding a Traffic Control Point (TCP) at Highway 270 and the Grant/Jefferson county line posted to any status board. Status boards reflected no category to track unrelated events that the staff invariably must track during a response. When unrelated events or rumors are identified, JIC staff must be able to accurately and clearly characterize them in responses to the public and media. Unless there is a system to capture these events, there is little means for staff to effectively deal with them.

JIC staff was updated at regular staff briefings, but key information was hard to hear or not always shared. For example, instead of announcing the 1230 news conference, the JIC manager briefed individual PIOs regarding who would be speaking. Sidebar conversations, telephone calls and printers also made it difficult for all staff to clearly hear important information during staff briefings.

The CSEPP Hotline was monitored for Emergency Alert System (EAS) messages and news releases uploaded by other jurisdictions, but the JIC did not upload any EAS messages or news releases. Mock Media in the Simulation Cell (SIMCELL) did not receive all JIC news releases via fax and e-mail was only used to send these documents to other jurisdictions. Relying on a single source of distribution to media causes information to be delayed or lost. Chemical Stockpile Emergency Preparedness Program (CSEPP) Hotline and a separate Web site would provide ongoing, updated information to media, local jurisdictions and other CSEPP sites and improve the JIS function. News release numbering was also an issue. Some news releases had duplicate numbers, which caused confusion for the media.

The JIC Plan directs that the JIC is automatically activated if an accident at PBA is a community event. This allows for rapid activation and cuts down on the time needed to decide whether or not to activate the JIC. If sirens activate, the PBCA PAO leaves for the JIC and calls the State and Jefferson County PIOs on the way. Staff members arriving at the JIC quickly and efficiently check in, prepare for activation, and begin their assigned duties. This rapid activation is key to establishing the JIC as a source of official information soon after an accident.

Observation:

Subject: Rumor Control

Discussion: At 0941, media monitoring form reported that a radio story questioned the possible link between today's events and recent news reports of three individuals in unauthorized areas. A 1000 notation on the media analysis form written by the PBCA Augmentation PAO indicated her intent to correct the rumor by "adding to the next release." This did not happen. Three subsequent stories reviewed at 1100, 1102 and 1204 included the same misconception. Ongoing media reports focusing on the potential relation between the intruder incident and current accident were not emphasized in JIC

staff briefings or passed to the media phone teams. The rumor wasn't adequately addressed until the Arsenal Commander's comments during the 1230 news conference.

Recommendation: Rumors should be "visible" to the entire JIC staff. This allows all areas to be proactive in controlling rumors. Review and revise the JIC plan with regard to rumor management. Establish a method of posting rumors in a visible location in the JIC. This might be accomplished by establishing a board or flip chart where rumors can be posted, including rumors in JIC briefings or posting rumors to the status board.

Observation

Subject: Joint Information System

Discussion: Adequate JIS requires JIC staff coordination with points of contact in all EOCs, schools, reception centers, shelters, hospitals, claims offices, and the federal initial operating facility. This coordination is critical to providing accurate response information to the public and can be accomplished directly with existing JIC staff or more appropriately, through a hospital liaison present in the JIC. There were several examples of unverified and flagrantly misleading information being distributed in non-JIC news releases. The most noteworthy example was a series of news releases from Saline County with Saline County Hospital updates. These news releases inappropriately speculated that students had been injured or killed as a direct result of the chemical agent plume. This was obviously inaccurate information as there never was a nerve agent plume outside of the PBA chemical limited area.

Recommendation: Consider the addition of hospitals as JIS partners in the Arkansas CSEPP Joint Information Center Plan. There currently is no mention of treating hospitals as a JIS partner. ADH is mentioned, but that organization is concerned with health effects of chemical agents and does not delve into the day-to-day operations and reporting by hospitals in support of an emergency response. There needs to be direct contact and coordination with the medical community to access the on-going status of medical response.

Observation

Subject: JIC Plan and Standing Operating Procedure (SOP)

Discussion: The PBCA PAO assumed the role of JIC Manager during the activation of the JIC and was augmented by an additional PBCA PAO who assumed the role of PBCA Augmentation PAO and liaison with the PBA Emergency Operations Center (EOC). The JIC Manager provided quick and efficient management of the JIC but was frequently unavailable to other members of the coordination team when questions involving key information from the Army were required. The Army Augmentation PAO was available but was never identified as a source of information to other members of the coordination team. Neither the Arkansas JIC Plan, nor the SOP describes the duties of a JIC Manager

position or PBCA Augmentation PAO in the Arkansas JIC. The plan does indicate that the PBCA PAO is responsible for “JIC Management.” There was confusion about who could speak for PBA.

Some of the concerns noted might be addressed by refining the JIC plan and SOP. For instance, there is discrepancy with how the plan and SOP address duties for the Operations Support Chief. The plan calls for this individual to be responsible for information flow and distribution within the JIC, while the SOP, which is a set of detailed job descriptions, makes no mention of these important tasks. In reality, it appeared the Operations Support Chief was acting much like a traditional JIC Manager might.

The plan and SOP also contain an incomplete job description for the Media Liaison. While the title itself implies liaison, there is nothing in the job description associated with typical liaison duties. According to the job requirements, these individuals are merely media greeters and runners who maintain the media briefing area, media work area, and pass along media requests for interviews to PIOs/PAOs in the back room. In order to maximize the Media Liaisons’ effectiveness, they should assist the core Coordination Team by gathering information on media representative actions, interests, and lines of questioning. In addition, the SOP calls for the Media Liaison to facilitate news conferences. This job was actually filled by the JIC Manager. Lack of training and knowledge about CSEPP is a disadvantage for anyone attempting to serve in a Media Liaison position.

Recommendations:

- (1) Clearly define the position description of the Operations Support Chief and make responsibilities consistent between the Plan and SOP. Delegate more duties from the JIC Manager function down to the Operations Support Chief and identify the PBCA Augmentation PAO as a key member of the coordination team member to evenly distribute workload and facilitate flow of information among team members.
- (2) Add a position description for a JIC Manager in the Plan and SOP and better define how the PBCA Augmentation PAO interfaces with the Coordination Team.
- (3) Enhance the Media Liaison position description, and train individuals to become a source of information for the Coordination Team about media activities and interests. The Coordination Team also should consider placing more experienced staff members in the Media Liaison position.

Observation

Subject: Telephone Answering Protocol

Discussion: Prior to opening, the JIC public and media call takers answered several phone calls explaining that the JIC was not open and that no information could be offered at that time. However, the EAS message had been released and was available to the media and public. The call takers had access to this information but did not share it with the callers. While it is important to answer each phone call, it is equally important to

pass along current and accurate information. Answering the phone and not passing along information is ineffective and can fuel incorrect assumptions and misinformation.

Recommendation: A decision regarding JIC telephone protocol should be made to either answer the telephone and present current information or wait until the JIC is open to present verified information.

Observation

Subject: JIC Telephone Numbers

Discussion: Callers were referred to agency and jurisdiction representatives to answer media and public questions. Because the transfer process was arduous and connections were often lost, the call takers often released an unpublished number to the caller, giving them direct access to a jurisdiction representative rather than filtering the incoming questions.

The direct lines of jurisdictional representatives are unpublished to keep the lines open for appropriate and necessary communication among representatives, media and jurisdictions. Releasing these numbers effectively alleviated this flexibility.

Recommendation: Communicate the purpose of published and unpublished numbers and the importance of each type of number. In addition, train staff and jurisdictional personnel to transfer callers only to published numbers and ensure that caller questions are answered and tracked in a timely manner.

Observation

Subject: News Conference

Discussion: Although a thorough news conference pre-brief was conducted, an explanation of the conference format and role of the facilitator was overlooked. The facilitator was prepared to initiate the news conference but was the last person to enter the room. The PBCA Commander began his remarks without any introduction of the other spokespersons or definition of ground rules. This oversight resulted in numerous interruptions of the Commander's opening statement. A lack of a speaker list for the media resulted in awkward interruptions during speakers' comments to the media.

Recommendation: Use checklists of critical functional duties to eliminate potential oversight of tasks outlined in published plans and SOPs. Add the distribution of a list identifying news conference presenters and their respective agencies to the news conference checklist section of the JIC SOP.

Observation

Subject: Maximum Disclosure with Minimum Delay

Discussion: Release of information by PBA following the accident was often slow and indirect. Initial and follow-up news releases distributed by the PBA EOC were available and briefed during the first JIC staff briefing. However, these documents were not distributed to JIC staff for reference at any time during the event. They represented the only release of information of the situation occurring on the installation. Frequent communication was established between the Arsenal and the JIC and there was an adequate amount of information relayed. Army representatives used the information to prepare a concise and informative narrative for use by the PBCA commander at the news conference. However, this information was not shared with the rest of the JIC coordination team or staff.

Media received the initial advisory indicating that local officials had been notified of a chemical accident at the Arsenal. The only follow-up news release from the Army which described the circumstances and events surrounding the accident was not received by the media who were forced to rely on orally communicated information extrapolated from status boards. Subtle discrepancies on the status boards were noted toward the end of the exercise.

Media requests for information through Army Materiel Command (AMC) and Chemical Material Agency (CMA) met with similar results as these agencies had little information about what was occurring at PBA. Ordinarily, CMA and AMC headquarters PAOs would be expected to coordinate closely with PBA PAOs to establish a communications strategy. This apparently did not happen during the accident response, nor was further information provided from Army headquarters on a regular basis. As a result, the PAOs on duty could not shed much light on what had happened nor what CMA or AMC were doing about it.

Recommendation: PBA should develop a strategy to expedite approval for release and distribution of information that provide messages which reassure the public and inspire confidence in the Army's ability to effectively protect the community.

Emergency Response Outcome 8 – Remediation and Recovery

Not Applicable.

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SECTION 4. FRCAs AND ACTION PLANS

Findings Requiring Corrective Actions (FRCAs) identified during the Pine Bluff Community CSEPP EX 06 are shown in the following table. Findings are grouped by the responsible jurisdiction. Findings Requiring Corrective Actions have an assigned identifying number that may be used to identify the corrective action throughout the report and in completing the action plans.

The number is structured as follows: XXX06Y.1. The “XXX” is a three letter identification of the response organization to which the corrective action applied [e.g., PBC for the Pine Bluff Community (more than one jurisdiction), PBA for Pine Bluff Arsenal, DEM for Arkansas Department of Emergency Management, ARK for Arkansas County, CLE for Cleveland County, DAL for Dallas County, GRA for Grant County, JEF for Jefferson County, JIC for the Joint Information Center, LIN for Lincoln County, LON for Lonoke County, PRA for Prairie County, PUL for Pulaski County, SAL for Saline County,]; “06” represents the year of the exercise; “Y” indicates the Emergency Response Outcome (ERO) where the FRCA was noted, this will be an Arabic number representing the appropriate ERO [e.g., 1 for Prevention and Preparedness, 2 for Emergency Assessment, 3 for Emergency Management, 4 for CAI Hazard Mitigation, 5 for Protection, 6 for Victim Care, 7 for Emergency Public Information and, 8 for Remediation and Recovery] and: “1” is the sequence number of the corrective action.

ID Number	Subject	Page
PBA06.2.1	Hazard Analysis	3-3
JRM05.6.1 JEF06.6.1	Lack of PPE in Contaminated Area - JRMC	3-28
JEF06.6.2	Inappropriate Chemical Casualty and Medical Management – JRMC	3-26
JEF06.6.3	PPE Pre-/Post-Entry Medical Screening - JRMC	3-27
BMC05.6.1 PUL06.6.1	Insufficient Training in Use of PPE – BMC	3-71
BMC05.6.2 PUL06.6.2	Failure to Provide Safety Oversight – BMC	3-71
UAM05.6.1 PUL06.6.3	Control Zones not Established – UAM	3-71
SAL06.5.1	PPE and Training for Law Enforcement	3-75

ACTION PLANS

This section contains the action plans of the Pine Bluff Community jurisdictions for corrective actions identified during the Pine Bluff CSEPP EX 06 and/or the resolution of Findings from previous Pine Bluff CSEPP exercises.

Pine Bluff Community.....	4-3
Pine Bluff Arsenal.....	4-5
Jefferson County	4-7
Arkansas County.....	4-9
Pulaski County	4-11
Saline County	4-13

ACTION PLAN FOR PINE BLUFF COMMUNITY
Pine Bluff Community CSEPP Exercise 2006
(February 8, 2006)

FINDING NUMBER	SUBJECT	RESPONSIBLE FOR CORRECTION	COMPLETION DATE
PBC05.6.1 CLOSED	ICS Use	Pine Bluff Community	CLOSED
<p>CORRECTIVE ACTION/COMMENT: Incident Command will be addressed through NIMS across the Pine Bluff CSEPP Community. Training will be conducted and the jurisdictions, departments and agencies will be encouraged to implement the ICS.</p> <p>Areas needing improvement (check all that apply):</p> <p> <input checked="" type="checkbox"/> Training <input type="checkbox"/> Staffing <input type="checkbox"/> Equipment <input type="checkbox"/> Plan(s) <input type="checkbox"/> Facilities <input checked="" type="checkbox"/> Procedures <input type="checkbox"/> Other (specify) _____ </p>			

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ACTION PLAN FOR PINE BLUFF ARSENAL
Pine Bluff Community CSEPP Exercise 2006
(February 8, 2006)

FINDING NUMBER	SUBJECT	RESPONSIBLE FOR CORRECTION	COMPLETION DATE
PBA06.2.1	Hazard Analysis	Commander	April 30, 2006
<p>CORRECTIVE ACTION/COMMENT: All OC personnel will continue to participate in the DETech online training that is funded by CMA. This is ongoing training and all personnel will participate as long as CMA funds the training. Additionally, all OC personnel will be briefed on this finding and a process will be mapped out for all personnel to follow in determining the proper PAR and disseminating to the off-post jurisdictions. Finally, each shift will be evaluated on these procedures on a monthly basis and during future CAIRA Exercises.</p> <p>Areas needing improvement (check all that apply):</p> <p> <input checked="" type="checkbox"/> Training <input checked="" type="checkbox"/> Staffing _____ Equipment _____ Plan(s) _____ Facilities <input checked="" type="checkbox"/> Procedures _____ Other (specify) _____ </p>			

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ACTION PLAN FOR JEFFERSON COUNTY
Pine Bluff Community CSEPP Exercise 2006
(February 8, 2006)

FINDING NUMBER	SUBJECT	RESPONSIBLE FOR CORRECTION	COMPLETION DATE
JEF05.6.1 CLOSED	Decontamination Procedures Training	Jefferson County	CLOSED
<p>CORRECTIVE ACTION/COMMENT: Decontamination will be addressed by training and drills for all fire departments in Jefferson County.</p> <p>Areas needing improvement (check all that apply):</p> <p><input checked="" type="checkbox"/> Training <input type="checkbox"/> Staffing <input type="checkbox"/> Equipment <input type="checkbox"/> Plan(s)</p> <p><input type="checkbox"/> Facilities <input checked="" type="checkbox"/> Procedures <input type="checkbox"/> Other (specify) _____</p>			

FINDING NUMBER	SUBJECT	RESPONSIBLE FOR CORRECTION	COMPLETION DATE
JRM05.6.1 JEF06.6.1	Lack of PPE in Contaminated Area - JRMC	Disaster Coordinators CSEPP Coordinator	Nov. 30, 2005 May 2006, Ongoing
<p>CORRECTIVE ACTION/COMMENT:</p> <p>Will continue with education endeavors</p> <p>Emergency Department personnel have been previously advised not to enter any isolated (hot/warm [dirty]) or make contact with potentially contaminated patients. JRMC will again instruct personnel to stay out of areas marked as HOT or WARM (dirty) and will educate other responders not to enter or contact patients prior to them being decontaminated. JRMC will work with ADH on signage and extension of the barrier tape to assist with delineation of areas.</p> <p>JRMC will ensure a process is in place to address arriving support personnel from outside sources are aware of necessary PPE use and other related issues. Additionally, potential responders will be identified and included in training and practice drills.</p> <p>Areas needing improvement (check all that apply):</p> <p><input checked="" type="checkbox"/> Training <input type="checkbox"/> Staffing <input type="checkbox"/> Equipment <input type="checkbox"/> Plan(s)</p> <p><input type="checkbox"/> Facilities <input checked="" type="checkbox"/> Procedures <input type="checkbox"/> Other (specify) _____</p>			

FINDING NUMBER	SHORT TITLE	RESPONSIBLE FOR CORRECTION	COMPLETION DATE
JEF06.6.2	Inappropriate Chemical Casualty - JRMC	CSEPP Coordinator	May 19, 2006
<p>CORRECTIVE ACTION/COMMENT: We will have a training class on signs and symptoms requiring antidote administration. This will be conducted in May and annually</p> <p>Areas needing improvement (check all that apply):</p> <p> <input checked="" type="checkbox"/> Training <input type="checkbox"/> Staffing <input type="checkbox"/> Equipment <input type="checkbox"/> Plan(s) <input type="checkbox"/> Facilities <input type="checkbox"/> Procedures <input type="checkbox"/> Other (specify) </p>			

FINDING NUMBER	SHORT TITLE	RESPONSIBLE FOR CORRECTION	COMPLETION DATE
JEF06.6.3	Pre/Post Entry Medical Screening	CSEPP Coordinator	May 19, 2006
<p>CORRECTIVE ACTION/COMMENT: We will clearly identify the Safety Officer, this was done in previous years and was neglected this year.</p> <p>Areas needing improvement (check all that apply):</p> <p> <input checked="" type="checkbox"/> Training <input type="checkbox"/> Staffing <input type="checkbox"/> Equipment <input type="checkbox"/> Plan(s) <input type="checkbox"/> Facilities <input type="checkbox"/> Procedures <input type="checkbox"/> Other (specify) </p>			

ACTION PLAN FOR ARKANSAS COUNTY
Pine Bluff Community CSEPP Exercise 2006
(February 8, 2006)

FINDING NUMBER	SUBJECT	RESPONSIBLE FOR CORRECTION	COMPLETION DATE
ARK05.6.1 CLOSED	Incident Command System (ICS)	Arkansas County	CLOSED
<p>CORRECTIVE ACTION/COMMENT: Incident Command will be addressed through NIMS training across the Arkansas County Community. Training will be conducted and the jurisdictions, departments and agencies will be encouraged to implement the ICS.</p> <p>Areas needing improvement (check all that apply):</p> <p> <input checked="" type="checkbox"/> Training <input type="checkbox"/> Staffing <input type="checkbox"/> Equipment <input type="checkbox"/> Plan(s) <input type="checkbox"/> Facilities <input checked="" type="checkbox"/> Procedures <input type="checkbox"/> Other (specify) _____ </p>			

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ACTION PLAN FOR PULASKI COUNTY
Pine Bluff Community CSEPP Exercise 2006
(February 8, 2006)

FINDING NUMBER	SUBJECT	RESPONSIBLE FOR CORRECTION	COMPLETION DATE
BMC05.6.1 PUL06.6.1	Insufficient Training in Use of PPE – BMC	Emergency Preparedness Committee	Oct. 14, 2005 Oct. 14, 2006
<p>CORRECTIVE ACTION/COMMENT: BHMC-NLR will partner with other hospitals to participate in combined resources to draw upon joint hazmat training to alleviate the burden of each hospital having to train responders. Additionally, an incentive program is being considered. Hospital will also look at community resources that may be available.</p> <p>Areas needing improvement (check all that apply):</p> <p> <input type="checkbox"/> Training <input checked="" type="checkbox"/> Staffing <input type="checkbox"/> Equipment <input type="checkbox"/> Plan(s) <input type="checkbox"/> Facilities <input checked="" type="checkbox"/> Procedures <input type="checkbox"/> Other (specify) _____ </p>			

FINDING NUMBER	SUBJECT	RESPONSIBLE FOR CORRECTION	COMPLETION DATE
BMC05.6.2 PUL06.6.2	Failure to Provide Safety Oversight – BMC	Emergency Preparedness Committee	Oct. 14, 2005 Oct. 14, 2006
<p>CORRECTIVE ACTION/COMMENT: A Safety Officer was designated and hospital personnel operating in the area were aware of who that person was. That person had the information, some of it laminated, with regard to checklists and procedures but did not utilize it appropriately. ADH will work with us to establish a better job checklist and final inspection information for the decontamination and PPE operations.</p> <p>Areas needing improvement (check all that apply):</p> <p> <input type="checkbox"/> Training <input type="checkbox"/> Staffing <input type="checkbox"/> Equipment <input checked="" type="checkbox"/> Plan(s) <input type="checkbox"/> Facilities <input checked="" type="checkbox"/> Procedures <input type="checkbox"/> Other (specify) _____ </p>			

FINDING NUMBER	SUBJECT	RESPONSIBLE FOR CORRECTION	COMPLETION DATE
UAM05.6.1 PUL06.6.3	Control Zones not Established – UAM	Disaster Coordinator	Sept. 2005 Oct. 14, 2006
<p>CORRECTIVE ACTION/COMMENT:</p> <p>UAMS will work to establish Control Zones and train workers in the proper procedure when dealing with Control Zones.</p> <p>Areas needing improvement (check all that apply):</p> <p><input checked="" type="checkbox"/> Training <input type="checkbox"/> Staffing <input type="checkbox"/> Equipment <input type="checkbox"/> Plan(s)</p> <p><input type="checkbox"/> Facilities <input checked="" type="checkbox"/> Procedures <input type="checkbox"/> Other (specify) _____</p>			

ACTION PLAN FOR SALINE COUNTY
Pine Bluff Community CSEPP Exercise 2006
(February 8, 2006)

FINDING NUMBER	SUBJECT	RESPONSIBLE FOR CORRECTION	COMPLETION DATE
SAL06.5.1	PPE and Training for Law Enforcement	CSEPP Coordinator and Law Enforcement Agencies	Feb. 1, 2007
<p>CORRECTIVE ACTION/COMMENT: Provide ACT Fast and PPE Training to Law Enforcement.</p> <p><input checked="" type="checkbox"/> Training <input type="checkbox"/> Staffing <input checked="" type="checkbox"/> Equipment <input type="checkbox"/> Plan(s) <input type="checkbox"/> Facilities <input type="checkbox"/> Procedures <input type="checkbox"/> Other (specify)</p>			

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APPENDIX 1. COMMUNITY PROFILE

Alert and Notification Systems

Areas to consider, but not limited to are:

- Initial Alert and Notification
- Protective Action Recommendation and Decision Making
- Public Instructions and Emergency Information
- Communications Systems and Facilities, Equipment and Displays

Status:

- Jefferson County's Automated Call-down system operational
- 63 Outdoor Warning Sirens
- Tone Alert Radios replaced, tested and in the process of acceptance
- Highway Messaging Boards Projects Phase I is complete and Phase II is scheduled to begin January, 2006
- ADEM 800 MHz Radio system operational
- CSEPP Hotline operational in all 24 Hour Warning Points
- Emergency Alert System/Cable Override operational
- MOU between Grant and Jefferson County is in place
- MOU between IRZ, PAZ, ADEM, ADH and PBA in place

Community Self Assessment Rating – PC

Green Background– Capable (C)
Blue Background– Partially Capable (PC)
Black or Green Text– Capable (C)
Blue Text– Partially Capable (PC)
Magenta (pink) Text– Marginally Capable (MC)
Red Text– Not Capable (NC)

Automated Data Processing

Areas to consider, but not limited to are:

- **Hazard Assessment**
- **Protective Action Recommendations and Decision making**
- **Public Notification, Instruction, and Emergency Information**
- **Communications Systems, Facilities, Equipment and Displays**

Status:

- **System operational - All EOCs have data transfer capability**
- **D2Puff installed at ADEM, PBA, & IRZ Counties, training on-going**
- **WebPuff available**

Community Self Assessment Rating – C

Communications

Areas to consider, but not limited to are:

- **Communications Systems, Facilities, Equipment and Displays**

Status:

- **IRZ 800 MHz radio system has been incorporated into the Arkansas Wireless Information Network (AWIN). Projected change over for late fall of 2005**
- **ADEM 800 MHz Radio system operational**
- **RACES system operational**
- **CSEPP hotline linking PBA, ADEM, ADH, ADEQ, IRZ's & PAZ's operational**
- **Arkansas County and Lincoln County's field communications limited due to needing additional repeaters on local frequencies. Projects are funded**
- **PAZ Counties have hand-held radios and pagers communication for response teams**
- **Dallas County hospital has limited to no communication with Emergency Medical Services, radio pending procurement by ADEM**
- **Limited communication from Stuttgart Regional Medical Center with other Emergency Medical Services, radios requested**

Community Self Assessment Rating – PC

Green Background– Capable (C)

Blue Background– Partially Capable (PC)

Black or Green Text– Capable (C)

Blue Text– Partially Capable (PC)

Magenta (pink) Text– Marginally Capable (MC)

Red Text– Not Capable (NC)

Coordinated Plans

Emergency Planning and Operations

Status:

- **CSEPP specific plans in place at all levels**
- **Synchronization matrices completed for all jurisdictions**
- **CSEPP Planners staffed at PBA, ADEM, and County's to ensure continuous review and update of plans and procedures**
- **Work plan for PPE and decontamination equipment complete – revisions ongoing**
- **AEGL's Plan implemented**
- **Re-Entry and Recovery Plan implemented**

Community Self Assessment Rating - C

Decontamination

Areas to consider, but not limited to are:

- **Transportation of Injured, Potentially Contaminated Individuals to Medical Treatment facilities**
- **Adequacy of Medical Facility and Health Care Personnel**
- **Patient Tracking System**
- **Handling Contaminated Human Remains (Responders, Coroners, Funeral Home)**
- **Emergency Worker Protection Program**
- **Emergency Worker Decontamination**
- **Security and Accountability**
- **Re-supply of Chemical-Unique Materials**
- **Screening, Decontamination, Registration, and Congregate Care of Evacuees**

Status:

Decon Capability

- **12 hospitals have decon capability**
- **12 hospitals have triage capability**
- **16 hospitals stocked with antidote**
- **25 decon units fully operational**

Community Self Assessment Rating – C

Green Background– Capable (C)

Blue Background– Partially Capable (PC)

Black or Green Text– Capable (C)

Blue Text– Partially Capable (PC)

Magenta (pink) Text– Marginally Capable (MC)

Red Text– Not Capable (NC)

Emergency Operations Center

Areas to consider, but not limited to are:

- **Command and Control**
- **Supplementary Assistance (PCSO / ASP)**
- **Alert and Notification of the Public (Combined Emergency Management and 9-1-1 Centers)**
- **Communications Systems**
- **Facilities, Equipment, and Displays**
- **24-Hour Operations with 9-1-1 Dispatchers/Warning Points**

Status:

- **All EOC's in the Arkansas CSEPP Community are fully functional**
- **Grant County expansion due to be completed November, 2005**
- **Lincoln County EOC renovation is scheduled to begin late 2005**
- **NIMS implemented**

Community Self Assessment Rating – C

Exercises

Individual Item Status:

- **CSEPP-FME- conducted March 16, 2005**
- **Off-post participates in PBA CAIRA exercises**
- **Next FME scheduled February 8, 2005**
- **Re-Entry and Recovery exercise was conducted August 5, 2005 in conjunction with the ICS 200 and ICS 300 courses**

Community Self Assessment Rating – C

Green Background– Capable (C)
Blue Background– Partially Capable (PC)
Black or Green Text– Capable (C)
Blue Text– Partially Capable (PC)
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Personnel

Individual item status:

- **Required and authorized CSEPP staff in position at State and County levels**

Status:

- **The State of Arkansas has 8.5 vacancies**

Community Self Assessment Rating – PC

Training

Individual Item Status:

- **Initial response training complete in IRZ**
- **Refresher training ongoing**
- **25 person PAZ response teams (implementation/training ongoing)**
- **16 Hospitals operationally trained**
- **D2 PUFF training completed**
- **WebPuff training scheduled for November 1st and 2nd, 2005**
- **Moulage Course scheduled for November 8th, 2005**
- **Hospital HAZMAT Operations Course scheduled for November 9th and 10th, 2005**
- **Exercise Design Course scheduled for December 6th, 7th and 8th, 2005**
- **Adjunct instructors available in Jefferson, Grant and Pulaski Counties**

Community Self Assessment Rating – C

Green Background– Capable (C)
Blue Background– Partially Capable (PC)
Black or Green Text– Capable (C)
Blue Text– Partially Capable (PC)
Magenta (pink) Text– Marginally Capable (MC)
Red Text– Not Capable (NC)

Medical

Areas to consider, but not limited to are:

- **Communications Systems, Facilities, Equipment, and Displays**
- **Public Affairs**
- **Medical Services – First Response (Fire and EMS)**
- **Medical Services – Transportation (EMS – Trained (MEMS))**
- **Medical Services – Medical Facilities (antidote in place, training available)**
- **Screening, Decontamination, Registration, and Congregate Care of Evacuees**
- **24-Hour Operation**

Status:

- **Hospital and Health Public Affairs active**
- **Mark-I Kits available at 19 locations & ADH**
- **Diazepam auto-injectors available at JRMC, ATS and EASI**
- **Atropine Treatment protocols in all 16 hospitals with antidote**

Community Self Assessment Rating – C

Green Background– Capable (C)
Blue Background– Partially Capable (PC)
Black or Green Text– Capable (C)
Blue Text– Partially Capable (PC)
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Red Text– Not Capable (NC)

Public Awareness

Areas to consider, but not limited to are:

- **Alert and Notification for the Public**
- **Communications Systems, Facilities, Equipment, and Displays**
- **Public Affairs**

Status:

- **CSEPP Public Outreach Program in place**
- **Annual CSEPP calendar distributed**
- **JIC operational and personnel trained**
- **Active Public Affairs Working Group working on identifying and implementing improvements**
- **JIC Plan completed and approved by each CSEPP jurisdiction**
- **Media Campaign implemented**
- **School Campaign implemented: Coloring and activity books in the schools**

Community Self Assessment Rating – C

Regulatory Compliance

Areas to consider, but not limited to are:

- **Hazard Assessment–Classification of Chemical Event Notification Levels**
- **Protective Action Recommendations and Decision Making**
- **Command and Control (Restrictions)**
- **Supplementary Assistance – Mutual Aid in crossing jurisdictions boundaries**
- **Public Notification, Instructions, and Emergency Information**

Status:

- **Federal/State/OSHA approvals re: PPE equipment/training FEMA & DA have approved use of PPE training and equipment**
- **MOU's and MOA's are in place**
- **Cooperative Agreement Guidance in lace**

Community Self Assessment Rating – C

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Red Text– Not Capable (NC)

APPENDIX 2. ANNUAL EXERCISE RECAP

The following paragraphs present a brief summary for the 2004 and 2005 Exercises.

March 16, 2005 Exercise:

- **Summary:** The following jurisdictions participated in the 2005 Pine Bluff Community Exercise: Pine Bluff Arsenal, State of Arkansas, Jefferson County, Grant County, Saline County, Dallas County, Lonoke County, Cleveland County, Prairie County, Lincoln County, Pulaski County, Arkansas County, and the Arkansas Department of Health. The exercise was conducted In Accordance With (IAW) the Emergency Operations Plans/Procedures (EOPs) of the respective jurisdictions, as they would respond to an actual chemical accident at Pine Bluff Arsenal. Response included treatment at Jefferson Regional Medical Center, Stuttgart Regional Medical Center, Saline Memorial Hospital, University of Arkansas for Medical Sciences Medical Center (UAMS), Southwest Regional Medical Center, St. Vincent Infirmery, Central Arkansas Veterans Health Medical Center, Baptist Health Medical Center – North Little Rock, Baptist Health Medical Center – Little Rock, and Arkansas Heart Hospital.
- Reception Centers and/or Congregate Care facilities were opened in Jefferson County, Grant County, Arkansas County, Prairie County, Cleveland County, Dallas County, Lincoln County, Lonoke County and Pulaski County.
- Traffic Control Points (TCPs) and Access Control Points (ACCs) were established in accordance with the scenario and the jurisdictions extent of play agreements. The involved counties were: Jefferson County, Arkansas County, Cleveland County, Lincoln County, Lonoke County, Pulaski County, Prairie County, Dallas County and Grant County,
- Victim Care and decontamination were demonstrated at Pine Bluff Arsenal, Pine Bluff Convention Center, Jefferson Regional Medical Center in Jefferson County, Stuttgart Regional Medical Center, at War Memorial Auditorium in Arkansas County; Barton Coliseum, Baptist Medical Health Center – Little Rock, Baptist Medical Health Center – North Little Rock, St. Vincent Medical Center, University of Arkansas for Medical Sciences Medical Center (UAMS), all in Pulaski County, England High School in Lonoke County, County Fair Grounds and Hazen Baptist Church in Prairie County, County Fair Grounds and Landmark Baptist Church in Grant County, Fordyce Airport and Dallas County Hospital in Dallas County, Star City Convention Center in Lincoln County, Rison High School in Cleveland County, and Saline Memorial Hospital in Saline County.
- **Finding Requiring Corrective Action:** There was only one finding requiring corrective action PBC05.6.1. Failure of the entire Pine Bluff community to use the Incident Command System. While some organizations and facilities appropriately implemented ICS, ineffective implementation occurred in both field

and hospital activities across the community. In some cases, commanders became involved in tactical operations and could not maintain control of their scene or effectively communicate with EOCs.

- **Accomplishments:**

The Joint Information System improved as more jurisdictions performed their public information duties correctly.

More Personnel Processing Points, Traffic/Access Control Points, Reception Centers and shelters were demonstrated than ever before.

- **Demonstrated Needs:** Additional medical training and equipment at hospitals, and emergency responder training at some sites were noted. .
- **Lessons Learned:** Key Officials need to place additional emphasis on becoming familiar with the Incident Command System. This training was given in August of 2005.

February 3, 2004 Exercise:

- **Summary:** The following jurisdictions participated in the 2004 Pine Bluff Community Exercise: Pine Bluff Arsenal, State of Arkansas, Jefferson County, Grant County, Saline County, Dallas County, Lonoke County, Cleveland County, Prairie County, Lincoln County, Pulaski County, Arkansas County, and the Arkansas Department of Health. The exercise was conducted In Accordance With (IAW) the Emergency Operations Plans/Procedures (EOPs) of the respective jurisdictions, as they would respond to an actual chemical accident at Pine Bluff Arsenal. Response included treatment at Jefferson Regional Medical Center, Stuttgart Regional Medical Center, Saline Memorial Hospital, University of Arkansas for Medical Sciences Medical Center (UAMS), Southwest Regional Medical Center, St. Vincent Infirmary, Central Arkansas Veterans Health Medical Center, Baptist Health Medical Center – North Little Rock, Baptist Health Medical Center – Little Rock, and Arkansas Heart Hospital.
- Reception Centers and/or Congregate Care facilities were opened in Jefferson County, Grant County, Arkansas County, Prairie County, Cleveland County, Dallas County, Lincoln County, Lonoke County and Pulaski County.
- Traffic Control Points (TCPs) and Access Control Points (ACCs) were established in accordance with the scenario and the jurisdictions extent of play agreements. The involved counties were: Jefferson County, Arkansas County, Cleveland County, Lincoln County, Lonoke County, Pulaski County, Prairie County, Dallas County and Grant County,
- Decontamination sites were set up at Pine Bluff Arsenal, Pine Bluff Convention Center, Jefferson Regional Medical Center in Jefferson County, Stuttgart

Regional Medical Center in Arkansas County, Arkansas Heart Hospital, Baptist Medical Health Center – Little Rock, Baptist Medical Health Center – North Little Rock, Central Arkansas Veterans Health Medical Center, St. Vincent Medical Center, Southwest Regional Medical Center, University of Arkansas for Medical Sciences Medical Center (UAMS), and all in Pulaski County, England High School in Lonoke County, Hazen Baptist Church in Prairie County, and Saline Memorial Hospital in Saline County.

- Victim Care was demonstrated at Pine Bluff Arsenal, Pine Bluff Convention Center, Jefferson Regional Medical Center in Jefferson County, Stuttgart Regional Medical Center, County Fair Grounds, and Grant Prairie War Memorial Auditorium in Arkansas County; Barton Coliseum, Arkansas Heart Hospital, Baptist Medical Health Center – Little Rock, Baptist Medical Health Center – North Little Rock, Central Arkansas Veterans Health Medical Center, St. Vincent Medical Center, Southwest Regional Medical Center, University of Arkansas for Medical Sciences Medical Center (UAMS), and all in Pulaski County, England High School in Lonoke County, Hazen Baptist Church in Prairie County, Landmark Baptist Church in Grant County, Fordyce Airport in Dallas County, Star City Convention Center in Lincoln County, Rison High School in Cleveland County, and Saline Memorial Hospital in Saline County.
- **Findings Requiring Corrective Action:** New issues include: PBA04.1.1, PBA04.1.2, PBA04.2.1, PBA04.2.2, PBA04.2.3, PBA04.3.1 and PBA04.5.1 for Pine Bluff Arsenal; JRM04.5.1, JRM04.5.2, JRM04.5.3 and JRM04.5.4 for Jefferson Regional Medical Center.
- **Accomplishments:** The Pine Bluff Community exercise was used as a lead in for a Service Response Force Exercise (SRFX). Key FEMA, Army, State and County Officials joined together in a joint operating center to make protective action decisions during response and recovery operations. Protecting the citizens and environment were the major concerns. The outcome was positive even though several critical coordination issues were brought out. Additional Re-Entry and Recovery Exercises are planned for the future.

The Joint Information System improved as more jurisdictions performed their public information duties correctly.

More Personnel Processing Points, Traffic/Access Control Points, Reception Centers and shelters were demonstrated than ever before.

Jefferson and Pulaski Counties have qualified adjunct CSEPP instructors for their emergency responders. ADEM CSEPP still offers CSEPP training and requests have greatly increased since the threat of terrorism is evident.

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- **Demonstrated Needs:** Additional medical training and equipment at hospitals, and emergency responder training at some sites were noted. A lack of emergency response personnel at PPPs in several locations could hamper operations.
 - **Lessons Learned:** Key Officials need to place additional emphasis on becoming familiar with their Emergency Operations Plans. Although improved, actors should be more realistic and challenging.

APPENDIX 3. ACRONYM AND ABBREVIATIONS

ACH	Arkansas Children’s Hospital
ACP	Access Control Point
ADEM	Arkansas Department of Emergency Management
ADEQ	Arkansas Department of Environmental Quality
ADH	Arkansas Department of Health
AEGL	Acute Exposure Guideline Level
AMC	Army Materiel Command
A & N	Alert & Notification
ARC	American Red Cross
ARES	Amateur Radio Emergency Services
ARK	Arkansas County
ASP	Arkansas State Police
B/P	Blood Pressure
BHMC-LR	Baptist Health Medical Center - Little Rock
BHMC-NLR	Baptist Health Medical Center – North Little Rock
BSI	Body Substance Isolation
CAC	Citizen’s Advisory Committee
CAI	Chemical Accident/Incident
CAIRA	Chemical Accident/Incident Response and Assistance
CEA	Civilian Executive Assistant
CECC	Central Emergency Communication Center
CENL	Chemical Event Notification Level
CERT	Community Emergency Response Team
CMA	Chemical Materials Agency
CSEPP	Chemical Stockpile Emergency Preparedness Program
DAL	Dallas County
DCH	Dallas County Hospital
DEM	Department of Emergency Management
DEMC	Deputy Emergency Management Coordinator
DHS	Department of Homeland Security
DoD	Department of Defense (US)
DON	Director of Nursing
EAS	Emergency Alert System
EASI	Emergency Ambulance Service, Inc.
EC	Environment of Care
ECC	Emergency Communications Center
ED	Emergency Department
EHSO	Environmental Health and Safety Organization

EM.....	Emergency Management
EMAC.....	Emergency Management Assistance Compact
EMC.....	Emergency Management Coordinator
EMD.....	Emergency Management Director
EMIS.....	Emergency Management Information System
EMLO.....	Emergency Management Liaison Officers
EMS.....	Emergency Medical Service
EMT.....	Emergency Medical Technician
ENDEX.....	End of Exercise
EOC.....	Emergency Operations Center
EOD.....	Explosive Ordnance Disposal
EOP.....	Emergency Operations Plan
ERO.....	Emergency Response Outcome
EX.....	Exercise
FCP.....	Forward Command Post
FD.....	Fire Department
FEMA.....	Federal Emergency Management Agency
FOSC.....	Federal On-Scene Coordinator
GB.....	Sarin nerve agent
GRA.....	Grant County
HAZMAT.....	Hazardous Materials
HEICS.....	Hospital Emergency Incident Command System
HEOC.....	Hospital Emergency Operations Center
HVAC.....	Heating, Ventilation and Air Conditioning
IC.....	Incident Commander
ICC.....	Incident Command Center
ICS.....	Incident Command System
IDLH.....	Immediately Danger to Life and Health
IMS.....	Incident Management System
IRF.....	Initial Response Force
IRFC.....	Initial Response Force Commander
IRZ.....	Immediate Response Zone
JIC.....	Joint Information Center
JIS.....	Joint Information System
JRMC.....	Jefferson Regional Medical Center
LIN.....	Lincoln County
LON.....	Lonoke County
LPN.....	Licensed Practical Nurse
MCE.....	Maximum Credible Event

MCI.....	Mass Casualty Incident
MD.....	Medical Doctor
MECA.....	Metropolitan Emergency Communications Association
MEMS.....	Metropolitan Emergency Medical Services
MHz.....	Megahertz
MOA.....	Memorandum of Agreement
MOU.....	Memorandum of Understanding
MRT.....	Medical Response Team
MSDS.....	Material Safety Data Sheet
NCP.....	National Contingency Plan
NCTR.....	National Center for Toxicological Research
NIMS.....	National Incident Management System
NRP.....	National Response Plan
ODP.....	Office of Domestic Preparedness
OEM.....	Office of Emergency Management
OSHA.....	Occupational Safety and Health Administration (US)
OSO.....	Occupational Safety Officer
PAD.....	Protective Action Decision
PAO.....	Public Affairs Officer/Office
PAPR.....	Powered Air-Purifying Respirator
PAR.....	Protective Action Recommendation
PAZ.....	Protective Action Zone
PBA.....	Pine Bluff Arsenal
PBCA.....	Pine Bluff Chemical Activity
PBCDF.....	Pine Bluff Chemical Disposal Facility
PD.....	Police Department
PIO.....	Public Information Officer
PPE.....	Personal Protective Equipment
PPP.....	Personnel Processing Point
RACES.....	Radio Amateur Civil Services
RN.....	Registered Nurse
RSO.....	Radiation Safety Officer
RTAP.....	Real-Time Analytical Platform
SAR.....	Supplied Air Respirators
SCBA.....	Self Contained Breathing Apparatus
SIP.....	Shelter-in-Place
SIMCELL.....	Simulation Cell
SITREP.....	Situation Report
SMH.....	Saline Memorial Hospital
SO.....	Sheriffs Office
SOP.....	Standing Operating Procedure

SRMC	Stuttgart Regional Medical Center
START.....	Simple Triage and Rapid Treatment
STARTEX.....	Start of Exercise
SVM.....	St. Vincent Infirmary Medical Center
TAR.....	Tone Alert Radios
TCP	Traffic Control Points
TO	Triage Officer
UAMS.....	University of Arkansas for Medical Services Medical Center
VFD.....	Volunteer Fire Department

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