

ANNEX EE
EVACUATION

I. SITUATION AND ASSUMPTIONS

A. SITUATION

1. The evacuation of individuals from locations of likely or imminent danger may result from a wide variety of natural, technological, or national security emergencies or disasters. The number of persons requiring evacuation may range from only a few to several thousand, and the length of time an evacuation is in effect may last from a few hours to an indefinite period of time.
2. The necessity for evacuating affected individuals from an area may take place in either the preparedness or the response phase of operations as outlined in the Basic Plan of the state EOP.

B. ASSUMPTIONS

1. Primary Assumptions

- a. Depending upon the nature of the emergency for which an evacuation is required, there may be adequate time for an evacuation prior to the occurrence of the event, or the actual evacuation may have to be initiated after the emergency has taken place.
- b. Evacuation may require relocating people:
 - 1) To or from another portion of the county;
 - 2) To or from an adjacent county or to or from one located in another part of the state;
 - 3) To or from another state;
 - 4) From another country.
- c. For local emergencies for which there is advance warning, approximately 50% of the affected population will voluntarily evacuate the area before being ordered to

do so. These evacuees will, in most instances, seek shelter with friends or relatives, or will use commercial lodging rather than use public shelter.

- d. Most of the public will act in its own interest and evacuate a dangerous area when advised to do so by authorities.
- e. Some persons will refuse to evacuate.
- f. Alternate transportation methods such as public transportation, private, or volunteer assistance may be required to evacuate some individuals or groups of individuals. Annex H (Transportation), as well as ESF #1 (Transportation), of the Federal Disaster Response Plan outlines the planned state and federal response, if required.
- g. Evacuation may necessitate the opening of congregate/mass care facilities to feed and shelter the evacuees. See Annex F (Reception and Care), and ESF #6 (Mass Care).

2. Specific Assumptions

a. Medical

- 1) Deaths and injuries resulting from the actual travel required due to an evacuation have not been found to be substantially greater than those experienced in normal non-emergency conditions.
- 2) Due to the unavailability of normal medical care for those involved in evacuations of large proportion, or those requiring the movement of citizens from their homes for an extended period of time, medical services and facilities may be required for the affected population both while enroute to the destination as well as after arrival at the shelter location. Annex M (Medical), and ESF #8 (Health and Medical Services) outlines the appropriate state and federal responses in this instance.
- 3) Evacuees requiring prescription medications may be unable to obtain these

items during an evacuation. Requirements for additional medications or diagnostic efforts for these individuals must be met even though medical records may be unobtainable.

- 4) In the event of an evacuation, some individuals may have special or non typical medical needs, either while enroute or upon reaching their destination, which must be considered to assure a safer and more orderly evacuation. Since a substantial number of persons may require the use of life support systems such as dialysis machines, respirators, etc. during an evacuation, it may be necessary to make such equipment available to those persons before, during, or after the event.
- 5) Other equipment such as wheelchairs, crutches, and other mobility aids may be required to assist those disabled prior to, or as a result of, the emergency. Local emergency plans should include listings of available medical equipment and supplies of this nature.

b. Transportation/Traffic Control

- 1) Special transportation requirements of certain groups being evacuated must be planned for. Those groups may include the elderly, hospital patients, physically or mentally handicapped, prisoners and possibly others.
- 2) Evacuation will require law enforcement and emergency services personnel to provide route and traffic control services. See Annex J (Law Enforcement).
- 3) Evacuation of an area after a catastrophic event, such as an earthquake, may require implementation of traffic re-routing or use of predetermined priority routes in order to provide for a safe egress from the affected area. Specific priority routes from the affected area(s), especially after a catastrophic event, should include those routes pre-selected as most likely to remain functional after such an event.

- 4) In instances where an evacuation is ordered as the result of a catastrophic event, transportation infrastructures such as roadways, bridges, etc. may require inspection and/or repair in order to be usable. Annex R (Engineering and Public Works) and ESF #3 (Public Works and Engineering), outlines these operations.

c. Security

- 1) The security of an evacuated area must be firmly established and persons living in or having businesses in the area must be assured that, if an evacuation occurs, their property will be protected against fire, theft, and other hazards and wanton destruction. This knowledge helps persuade people to evacuate when necessary. Annex K (Fire Services), ESF #4 (Firefighting), Annex J (Law Enforcement), and in instances of disaster declaration by the Governor, Annex G (Military Support) details these operations.
- 2) Certain individuals may be required to occupy or re-occupy an evacuated area for a variety of reasons. Local plans should include provisions for allowing appropriate individuals re-entry to an evacuated area.
- 3) Local plans should include provisions for identifying evacuees, emergency workers, media, etc. by means of badges, colored name cards, armbands, or other suitable methods to ensure an expedient and orderly evacuation, and to allow those who may be required to remain in, or return to an evacuated area, the ability to accomplish their required mission with minimum interference.

d. Economic

- 1) The economic impact to an area being evacuated may result in damage to private, community, state or national economies. The degree or damages realized may be proportional to the number

or persons being evacuated, the length of time the evacuation is in effect, and the reason for the evacuation.

- 2) Various factors determining the degree of economic loss to an affected area may include, but is not limited to, loss of industrial and agricultural productivity, loss of wages to the affected population, property damages, inability to care for livestock, and the interruption of transportation networks and resource transmission facilities.

e. Public Information

- 1) Persons evacuated from an area, will require a high degree of public information, especially in the early stages of the evacuation. Responsible officials should be should be prepared to regularly advise and update the population on the areas of concern for any particular incident.
- 2) Evacuations may be required without warning, and without allowing family units to be united prior to the evacuation. Local plans for the evacuation of a school, hospital, nursing home, etc. should include provisions for the tracking and status of individuals being evacuated. Plans should also include a means for reuniting family groups at the evacuees' destination. The American Red Cross as well as The Salvation Army relief organizations have plans in place to support this effort.
- 3) When an evacuation is required for an area, the public will require notification of the recommendation or order to leave as well as other details such as to where they will be transported, imminent dangers to their welfare, specific instructions and other items of interest.
- 4) Certain groups, such as those with hearing impairments, language difficulties, physical or mental problems, etc., may require that additional

measures be taken to ensure they comprehend the messages concerning the evacuation and take the appropriate measures to best protect themselves.

- 5) In the event that state assistance is required in an evacuation, public information for all state agencies involved will be coordinated as outlined in Annex E (Public Information) of the state EOP. If, in the event of a catastrophic occurrence, federal assistance is rendered under the Federal Response Plan, ESF #5 (Information and Planning), and Annex E (Public Information) of that plan will be implemented.

II. MISSION

The mission of the Evacuation Annex is to provide for the protection of life/or property by removing endangered persons and property from potential or actual disaster areas to areas of less danger. Appropriate government officials are to evaluate the need to evacuate as an emergency develops to ensure the proper and timely implementation of evacuation operations.

III. DIRECTION AND CONTROL

Direction and control for evacuation operations shall be exercised by the Chief Executive Officer of the local jurisdiction, or the designated representatives, in accordance with the basic plan of the local and State EOP. State efforts, when required to supplement the local efforts, will be carried out in accordance with the State EOP. In the event of a catastrophic occurrence, and upon a Presidential declaration at the request of the Governor, the Federal Emergency Management Agency (FEMA) will implement appropriate portions of the Federal Disaster Response Plan. This plan will assist local and state efforts in required areas by providing a wide spectrum of federal services and resources as outlined in the various emergency support functions (ESF's) of that plan.

IV. CONCEPT OF OPERATION

- A. Evacuations as with all emergency operations, shall be carried out in accordance with the Integrated Emergency Management System (IEMS), concept of operational planning.
- B. Evacuations that may be foreseen may be ordered by the Chief Executive Officer of the local jurisdic-

tion or by the Governor. When an unforeseen incident requires evacuation of the public, the senior law enforcement, fire, or DES official can order an evacuation.

- C. Local jurisdictions should identify shelters for the care of evacuees within their counties as covered in Annex F (Reception and Care) and ESF #6 (Mass Care).
- D. Shelters for evacuees from a hazardous materials incident should be located upwind and well beyond the boundary of the evacuation zone. Hazardous materials incidents will be handled in accordance with Annex Q (Haz-Mat) and ESF #10, Haz-Mat.
- E. Shelters for evacuees from a flood should be located above the established 100 year flood boundary.
- F. In instances where coordination among several agencies is required, that coordination shall be carried out in accordance with the basic plan of the State EOP.
- G. Depending upon the extent and severity of the incident requiring evacuation of an area, the state EOC may be fully activated, partially activated, or not activated. Activities may be coordinated from a command post established near the scene.
- H. Areas to be evacuated should be designated by clearly defined geographical boundaries such as roads, etc.
- I. In the event it becomes necessary to evacuate persons into an adjoining county, officials from the receiving county shall be notified by the DES local Coordinator, or the DES Area Coordinator, indicating the requested assistance.

V. OPERATIONAL PHASES

In the event of an evacuation the local jurisdiction will take the lead role in implementing and carrying out the operation. If the local jurisdiction cannot adequately respond to the requirements of protecting life and/or property, the state will provide the necessary manpower, equipment and administrative functions. The following phases of operation may be required to fulfill that mission.

A. Preparedness Phase

1. Identify probable or potential areas likely to require evacuation in accordance with the hazard vulnerability analysis.
2. Discourage inappropriate development in areas likely to experience flooding, chemical contamination, or other hazardous conditions.
3. Conduct periodic review and updates of the local hazard vulnerability analysis, particularly in areas containing specific hazards, to identify new or changing threats that could require evacuation of the population.
4. Encourage development and maintenance of maps depicting areas that contain hazards which could require evacuation. Such maps should include, but are not limited to:
 - a. Industrial and commercial sites for manufacture, storage or use of supplies, materials or agents considered hazardous.
 - b. Major road systems, railroads and shopping sites where hazardous materials are transported, handled, or stored.
 - c. Vulnerable facilities containing large groups of people such as schools, industries, and housing centers which may be threatened by a hazardous situation which would require evacuation.
 - d. Flood prone lands and roadways which could require evacuation.
 - e. Prepare scaled map overlays for rapid assessment of areas threatened with conditions requiring evacuation.
 - f. Identify feasible evacuation routes for the various hazards.
 - g. Prepare hazard specific plans and Standard Operating Procedures (SOP's) as appropriate.
 - h. Plan for the congregate/mass care and security of evacuees and for any special needs groups such as hospitals, rest homes, schools, etc.
 - i. Develop procedures for the movement and care of school children in the event that

evacuation is required during school hours. Plans should include notification of parents or guardians of the destination, as well as procedures for reuniting children with appropriate guardians.

- j. Develop public information program to provide residents information concerning:
 - 1) Reason for possible evacuation.
 - 2) Appropriate food, clothing and other necessary items to be taken during evacuation.
 - 3) Recommended or mandatory evacuation routes.
 - 4) Alternative transportation resources.
 - 5) Reception centers.

B. Response Phase

- 1. Designate shelters and travel routes to be used.
- 2. Support or order evacuation and provide the public with required information to initiate evacuation.
- 3. Alert all agencies and shelter owners involved in evacuation and shelter operations.
- 4. Provide traffic control and area security.
- 5. Provide necessary public transportation.
- 6. Initiate necessary emergency medical service response.
- 7. Arrange for evacuation of affected special needs groups.

C. Recovery Phase

- 1. Alert all agencies and individuals supporting evacuation.
- 2. Arrange for the early return of persons needed for essential services or operations, or to reactivate vital businesses.

3. Designate return routes and provide route control and security.
4. Provide necessary transportation.
5. Order return and provide information to the public on when and how to return to the evacuated area.
6. Provide public information on recovery and disaster assistance operations.
7. Establish a disaster application center, if necessary.
8. Inspect and repair shelter facilities.
9. Conduct critique of operations and incorporate any required corrective actions into plans.

VI. ADMINISTRATIVE SUPPORT

Administrative Support for the Evacuation Annex will be provided as set forth in the basic plan and Annex A (Direction and Control) of the State Emergency Operations Plan, the basic plan of the Federal Response Plan, and the local Emergency Operations Plan.

VII. GUIDANCE DOCUMENTS

- A. Federal Response Plan.
- B. Evacuation Risks, US Environmental Protection Agency. EPA - 520/6-74-002.
- C. Earthquake Hazard Mitigation of Transportation Facilities in Western Kentucky. Ky. Transportation Center, College of Engineering, University of KY. Reports KTC-89-1 to KTC-89-29.
- D. Evacuation, An Assessment of Planning and Research. FEMA RR-9 / November 1987.
- E. Transportation Planning Guidelines for Evacuation of Large Populations. FEMA CPG 2-15 / September 1984.
- F. Evacuation in Emergencies: An Annotated Guide to Research. FEMA RR-8 / October 1987.
- G. Evacuation: An Assessment of Planning and Research. FEMA RR-9 / November 1987.

APPENDIX EE-1

CHEMICAL STOCKPILE EMERGENCY PREPAREDNESS PROGRAM

(CSEPP)

EVACUATION

I. PURPOSE

The purpose of this appendix to Annex EE is to provide the basis for understanding the choice of one of the two protective actions, evacuation, should there be a release of toxic chemicals at the Blue Grass Army Depot (BGAD) in Richmond, Madison County.

II. SITUATION

Various chemical warfare agents are stored at BGAD in several munition configurations, and in a one ton container. Should there be an accidental release of these agents, it would be necessary to take measures to protect the population of the surrounding area. One of the options chosen as effective is that of evacuation.

III. EMERGENCY CLASSIFICATION LEVELS (ECLs)

A. Emergency Classification Levels at BGAD are of four (4) types: Non-Surety, Limited Area, Post-Only, and Community Emergency.

1. **The Non-Surety ECL:** No incident take place which involves Chemical Warfare (CW) weapons or ammunition. This may involve some other incident which takes place at BGAD and which may arouse the interest of the general public, but poses no threat to the community off-post. Evacuation is not required.
2. **The Limited Area ECL:** An incident is likely to occur, or has occurred, which may involve an actual or potential degradation of safety on-site, that is, in the chemical containment area. No consequences are expected beyond the chemical storage area. Evacuation is not required.
3. **The Post Only ECL:** An incident is likely to occur, or has occurred, which involves an actual or potential degradation of on-post safety systems. A release of CW agent(s) is not anticipated to have an effect beyond the boundary of the Depot. A precautionary evacuation may be recommended.

4. **The Community Emergency ECL:** An incident is likely or has occurred involving a major decrease in on-post safety levels. A release will present a danger to the off-post community. Evacuation of those zones which have been determined to be at risk will be the Protective Action Recommendation (PAR), time permitting.

IV. PROTECTIVE ACTION OPTIONS

- A. There are two protective action options : evacuation and/or in-place protection. Evacuation consists of removing individuals from an area of potential or actual hazard to a safe area. For CSEPP, it is the most effective of all protective action options provided it is completed before the arrival of the toxic plume. Evacuation may be precautionary or responsive in nature. Precautionary evacuation is desirable because it occurs before the population is at high risk. A responsive evacuation, in contrast, occurs after a release and could expose some or all of the evacuees to the hazard. In-place protection, by definition, means remaining in one location.
- B. These protective action options are implemented by zones at risk within eight (8) downwind scenarios, using a plume path or "track" of 90 degrees. This 90 degree plume provides a liberal safety factor based on scientific downwind modeling performed at BGAD which indicates a 40 degree maximum plume dispersion. Additional degrees were added by planners to provide maximum protection to the population.
- C. Zones at risk from a downwind hazard will implement the protective action which is determined for that area. The zones have been designated as 1A through 1D, 2A through 2E, and 3A through 3D. Zones 1 and 2 comprise the Immediate Response Zone (IRZ), and zone 3 is the Protective Action Zone (PAZ) portion of Madison County. Although protective action recommendations may be for 1 or more subzones in zone 1, if any portion of zone 1 performs a protective action, all of zone 1 will implement that protective action.

V. PROTECTIVE ACTION RECOMMENDATIONS

- A. Officials at the BGAD EOC will monitor and assess incidents at all ECLs and will provide information to KyDES at the State EOC, and officials at Madison County's Civil Defense Office. Madison Civil Defense will inform the County EOC Policy Group, which is composed of the county Judge-Executive, the Mayors of Richmond and Berea, and other county officials, including the Madison County CSEPP Planner/analyst. Protective actions could be recommended as a precautionary measure at the Post Only ECL, or could be recommended at the Community Emergency ECL.

- B. The EOC Policy Group in Madison County has the duty and responsibility to analyze the situation at each ECL and make the decision as to compliance with the PAR as recommended by BGAD. It is important to note that major scenarios will be worked out in advance so that the protective action recommendation option may be implemented quickly, by use of a default scenario as closely matching the incident as possible.
- C. The PAR is also analyzed at the State EOC by KyDES. It may be necessary at the the Post-Only ECL, depending on the PAR received from BGAD, to partially or fully activate both the Madison and State EOCs. The State EOC communicates the progress of the incident and PARs to the PAZ and host counties, first via their 24-hour warning points, then later to their EOCs. A continual flow of information to all EOCs involved is essential to timely and effective implementation of PARs.