

ANNEX R
ENGINEERING AND PUBLIC WORKS

I. SITUATION AND ASSUMPTIONS

- A. Disaster incidents of all types often result in debris which must be removed to save lives and minimize damage.
- B. Engineering services are necessary following emergencies and disasters for such purposes as:
 - 1. Damage assessment and damage surveys
 - 2. Safety consideration relative to buildings, structures and facilities.
 - 3. Determining feasibility of structural repair.
 - 4. Restoration of essential public services.
 - 5. Determining methods for wreckage removal.
- C. The relocation of fifty percent of the citizens of Kentucky as called for under crisis relocation will demand the upgrading of many buildings for use as congregate care facilities and as fallout shelters. While some of the work can be done by the evacuees, most of it will require the mobilization and coordination of the construction industry. This mobilization and coordination will become even more important if the evacuation is followed or preceded by a nuclear attack.
- D. A major conventional war, nuclear war, or a significant natural disaster would demand major repair to the U.S. infrastructure.

II. MISSION

The mission of the Engineering/Public Works Coordinator is to coordinate the allocation of the Commonwealth's private and governmental construction, housing, and engineering resources to meet the needs of the citizens of Kentucky; to prepare plans for carrying out this mission; and advise the governor on construction and engineering problems facing the state.

III. DIRECTION AND CONTROL

- A. The department of Finance is responsible for coordinating this annex.
- B. During a statewide or national emergency it may be

necessary to activate a Construction/Housing and Engineering Board.

- C. The Secretary of Finance will serve as the Chairman of the Construction/Housing and Engineering Board when this board is activated statewide or nationwide.
- D. The Construction/Housing and Engineering Board will contain one member from each of its industrial bases who will be appointed by the governor upon recommendation of the Secretary of Finance.
- E. The Construction/Housing and Engineering Board is the agency through which state directives and regulations concerning housing and engineering will be issued by the state and enforced.
- F. The Board is responsible for overseeing and coordinating statewide emergency housing, construction, and engineering.
- G. The Board shall consist at a minimum of the following positions and will have these described duties.
 - 1. Chairman of the Construction/Housing and Engineering Board: Shall be the Secretary of the Finance and Administration Cabinet; the State Government agency concerned with emergency construction and repair of housing, and also makes the allocation and distribution of construction materials and equipment to essential users. The Chairman will maintain liaison with Federal agencies concerned with construction and housing. The Chairman will insure a close working relationship between all elements of the emergency Construction/Housing Organization. The Chairman will serve as a member of the State Economic Stabilization Board.
 - 2. Heavy Industries Construction and Repair Officer: Shall be chosen from the heavy construction industry by the Chairman. This officer will coordinate all heavy construction industry by the Chairman. This officer will coordinate all heavy construction and repair, and will allocate available resources for heavy construction and repair.
 - 3. Highway Construction and Repair Officer: Shall be chosen by the Chairman from the Department of Highways and should be either the State Highway Engineer, or an assistant. This office will coordinate all transportation-related con-

struction and repair during an emergency, and will determine priorities.

4. Construction Supply and Equipment Officer: Shall be chosen by the Chairman from the private Construction and Equipment Supply Sector. The officer will coordinate all requests for construction supplies and will maintain current information on the availability of construction supplies within the state.
5. Community and Private Housing Construction and Repair Officer: Shall be chosen by the Chairman from the home construction and repair sector. The officer will receive and act on all requests for authorizations of emergency private housing construction and repair.
6. Supporting Resources Officer: Shall be appointed by the Chairman from the Division of Facilities Management, Finance and Administration Cabinet. The officer will coordinate all requests for supporting resources necessary for effective operation of construction housing industry.
7. Rent and Housing Sales Officer: Shall be an official of the Division of Banking, Public Protection and Regulation Cabinet; or the Revenue Cabinet. The chairman will make this appointment. This officer will set rents and fair market price of housing.

H. Local Government

1. The County Judge-Executive will appoint a Construction and Engineering Coordinator for his jurisdiction.
2. The County Judge-Executive will prepare plans for activating a Construction/Housing and Engineering Board for use during major emergencies. The Board will be responsible for:
 - a. Local emergency construction and housing;
 - b. Listing construction and heavy equipment firms and operators in their county;
 - c. Maintaining a plan for upgrading upgradable fallout shelters;
 - d. Developing committee operating procedures;

- e. Ensuring that necessary forms are available in the event of an emergency;
- f. Ensuring that all personnel concerned are familiar with their responsibilities;
- g. developing a system of determining construction and housing resources available if relocation takes place;
- h. Approving requests for construction and repair based on current policies and priorities;
- i. Issuing authorization for necessary building supplies;
- j. Determining the best utilization of buildings;
- k. Take part in tests and exercises as required by State authorities.

IV. CONCEPT OF OPERATION

A. See Appendix R-1, Construction; Appendix R-2, Engineering; Appendix R-3, Housing; and Appendix R-4, Debris Removal.

B. Operational Phases

1. Preparatory Phase

- a. develop and train an organization
- b. Develop operational procedures.
- c. Develop system of determining resources available and needed.
- d. Ensure that necessary forms are available.
- e. Ensure all personnel concerned are familiar with their responsibilities.
- f. Take part in tests and exercises as requested by KyDES.
- g. Upon instructions from KyDES Executive Director, or representative, shift to Response Phase.

2. Response Phase

a. Increased Readiness Period

- 1) Complete all steps not yet completed under Preparedness Phase.
- 2) Review and update annex.
- 3) Alert personnel needed to carry out annex.
- 4) Carry out any needed training.
- 5) Check to insure necessary supplies are available.
- 6) Prepare list of construction, engineering and heavy equipment firms and personnel in the state.
- 7) Upon instructions from KyDES Executive Director, or representative, shift to Emergency Operation Period or return to Preparedness Phase.

b. Emergency Operation Period

1. Natural/Man-made Technical Disaster

- a) Complete any procedures under Preparedness Phase of Increased Readiness Period not yet completed.
- b) If necessary, issue state Construction/Housing and Engineering Board directives and advisory bulletins.
- c) Keep statewide records on workers made available, work undertaken, and hours worked.
- d) Coordinate activities with surrounding states.
- e) If necessary approve request for construction, housing. and engineering resources.
- f) Carry out life saving and damage limiting operations.
- h) Upon instructions from KyDES Executive Director, or representative, shift to Recovery Phase

2) Nuclear/Conventional War

a) Relocation

- (1) Carry out life saving and damage limiting operations.
- (2) Complete any procedures under Preparedness Phase or Increased Readiness Period not yet completed.
- (3) If necessary issue state Construction/Housing and Engineering Board directions and advisory bulletins.
- (4) Keep records of workers made available, work undertaken, and hours worked.
- (5) Coordinate activities with surrounding counties.
- (6) Approve request for construction, housing, and engineering resources.
- (7) Upon instructions of the KyDES Executive Director, or representative, shift to Attack Period or Recovery Phase.

b) Attack Period

- (1) Take shelter: During this phase action will be limited to in-shelter activities, unless otherwise directed by the EOC.
- (2) Keep records of workers made available, work undertaken, and hours worked.
- (3) Upon instructions from KyDES Executive Director, or representative, shift to Recovery Phase.

3. Recovery Phase

- a. Carry out operations as directed by EOC.
- b. Upon instructions from KyDES Executive

Director, or representative, shift to Preparedness or Response Phase.

- c. Upon Reverting to Preparedness Phase, critique operation for updates to the EOP and standard operating procedures.
- d. Recovery operations may continue long after emergency response workers have left the scene.

C. Increased Readiness levels will be initiated by KyDES based on information furnished by FEMA and other sources. The required actions are explained in Annex D of this plan.

D. All emergency operations will be carried out in conformity with KyDES EOC SOP.

V. ADMINISTRATIVE SUPPORT

A. The Construction/Housing and Engineering Board will develop their own administrative support staff. Personnel for this staff will be developed from the construction industry.

B. Augmentation and Training of emergency organizations will be carried out as set forth in CPG 1-7 -- Guide for Increasing Local Government Civil Defense Readiness during Period of International Crisis.

VI. APPENDICES

A. Appendix R-1 -- Construction

B. Appendix R-2 -- Engineering

C. Appendix R-3 -- Housing

D. Appendix R-4 -- Debris Removal

VII. GUIDANCE DOCUMENTS

A. "Debris Removal Guidelines for State and Local Officials", FEMA DR&R-15

B. "State and Local Communications and Warning Systems Engineering Guidance", FEMA CPG 1-37

C. "Recovery from Nuclear Attack:", FEMA 160

D. "Home Fallout Protection", Public Works Canada, Directorate of Emergency Preparedness.

APPENDIX R-1
CONSTRUCTION

I. CONCEPT OF OPERATIONS

- A. In the event of implementation of this appendix, the basic goals of the state Construction/Housing and Engineering Board will be to identify essential construction projects and available construction resources, plan for the resupply of critical construction items, and issue directions to local Construction/Housing Boards.
- B. Essential construction resources available to the state will be assigned primarily for three (3) purposes:
 - 1. Activities essential to continued health, welfare and survival of its citizens.
 - 2. Support of military operations.
 - 3. Support of facilities producing essential survival and defense items.
- C. At the time this Appendix is implemented, the State Construction/Housing and Engineering Board will determine the construction and repair requirements needed to meet the emergency, and the availability of any excess construction facilities and supplies. This will be accomplished by polling local Construction/Housing and Engineering Boards.
- D. The State Construction/Housing and Engineering Board will assume and exercise direction and control over the usage of construction resources within the state. Local Construction/Housing and Engineering Boards will exercise the same control in their counties.
- E. All construction or repair work, sale of construction equipment, or movement of construction equipment may be suspended for a specific period of time after this appendix is put into effect; except for emergency repair work, the preservation of essential supplies, and aid to Disaster Preparedness and/or military projects as directed by the state board.
- F. Local construction or repair of any type of building will not be undertaken without specific authorization from the local Construction/Housing and Engineering Board. The local board will follow state guidelines.

- G. Local requests for building construction or repair authorization will be made by the owner to the County Construction/Housing and Engineering Board. The local board will grant permission only if in compliance with state board guidance.
- H. Building supplies will not be sold, loaned, or leased to anyone within the state unless the purchaser produces an authorization for specific items and amounts that can be authenticated by the local Construction/Housing and Engineering Board.
- I. Authorizations for construction or repair will not be made for non-essential structures.
- J. The following types of building construction or repair is delegated to the local Construction/Housing and Engineering Board, unless the state board otherwise directs:
 - 1. Hospital and health facilities.
 - 2. Food storage and production facilities.
 - 3. Clothing storage and production facilities.
 - 4. Medical supply storage and production facilities.
 - 5. Temporary housing for evacuees.
 - 6. Fallout shelters.
- K. Both state and local boards will maintain records of all expenditures in accordance with State Government regulations.

APPENDIX R-2
ENGINEERING

I. CONCEPT OF OPERATIONS

- A. In the event of implementation of this appendix, the basic goal of the state board will be to identify essential engineering projects, to assess available engineering resources and provide for their judicious distribution, and give directions to the local Construction/Housing and Engineering Board.
- B. Essential engineering resources available to the state will be assigned primarily for three (3) purposes:
 - 1. Activities essential to continued health, welfare, and survival of the citizens; and activities directed toward the maintenance or restoration of the state and national economy.
 - 2. Support of military operations.
 - 3. Support of facilities producing essential survival and defense items.
- C. In support of the plan, engineering services will be expected to perform those operations which are normal to engineering. These will include assisting in the maintenance of utilities, transportation, and communications facilities; construction of congregate and fall-out shelters; and providing engineering assistance as may be required.
- D. At the time the appendix is implemented, the State Construction/Housing and Engineering Board will determine the Commonwealth's engineering resources by polling the local Construction/Housing and Engineering Boards.
- E. The State Construction/Housing and Engineering Board will assume and exercise direction and control over the use of engineering resources within the state. Local boards will exercise such control in their county.
- F. The State and County Boards will maintain records of all expenditures in accordance with state government regulations.

APPENDIX R-3
HOUSING

I. CONCEPT OF OPERATIONS

- A. In the event that this appendix is implemented, the basic goal of the State Construction/Housing and Engineering Board will be to assess the most efficient utilization of these resources, provide for their judicious distribution, and plan for the resupply of critical items.
- B. Control of rents and prices of property will be established and announced by the state board for enforcement by the local boards.
- C. Essential housing resources available to the state will be assigned primarily for three (3) purposes:
 - 1. Activities directed toward the saving and preservation of life and property.
 - 2. Activities essential to continued health, welfare, and survival of the citizens; plus the maintenance or restoration of the State's economy.
 - 3. Support of military operations.
- D. At the time this appendix is implemented, the Commonwealth's Construction/Housing and Engineering Board will determine the housing requirements needed to meet the emergency, and the availability of any excess housing facilities, by polling local Construction/Housing and Engineering Boards.
- E. The State Construction/Housing and Engineering Board will assume and exercise directions and control over the use of housing.
- F. In the event a county suffers a housing shortage, the following priority system will be put into effect by the county unless otherwise directed by the state Board.
 - 1. Hospital and medical facilities
 - 2. Mass housing (temporary, including tents)
 - 3. Mass feeding facilities
 - 4. Mass sanitary facilities
 - 5. Food and Medical Storage

6. Other

- G. Control of rents and prices of improved property will be established by the Division of Banking of the Public Protection and Regulation Cabinet or the Property Valuation Section of the Revenue Cabinet.
- H. Both the state and local boards will maintain records of all expenditures in accordance with state government regulations.

APPENDIX R-4
DEBRIS REMOVAL

I. CONCEPT OF OPERATIONS

A. Local Government

1. All available resources will be committed to the extent necessary to assist with debris removal.
2. Records must be kept of manpower and resources utilized.
3. Local agreements and plans should be developed for emergency debris removal and should include local resources, mutual aid resources and those available under contract.
4. Prior to requesting state assistance all local resources must be committed, and the request for state assistance must certify that the situation is beyond the capabilities of local government to cope with.

B. State Government

1. All state departments/agencies are responsible for debris removal from property for which they are responsible. When appropriate, coordination is necessary with Federal agencies operating under their own statutory authority.
2. All state departments will be responsive to requests from KyDES to provide personnel and/or other resources for debris removal. A partial listing of these State agencies and respective areas of responsibility is as follows:
 - a. Division of Disaster and Emergency Services
 - 1) Be responsible for the coordination of debris removal activities.
 - 2) Coordinate and compile debris removal damage assessment reports. (See Annex V)
 - b. Transportation Cabinet
 - 1) Be responsible for debris and wreckage removal from Interstate highways and State highways.

2) Assist local governments in debris removal from public and private property when so authorized.

3) Assist in debris removal damage assessments. (See Annexes H and V)

c. Department of Agriculture

1) Advise on farm debris removal problems.

2) Advise and assist when debris contains or consists of animal carcasses.

d. Cabinet for Human Resources, Department of Health Services

Advise and assist as is possible when debris or wreckage constitutes a health hazard.

e. Natural Resources and Environmental Protection Cabinet, Division of Waste Management

Locate sites for disposal of debris.

C. Limitations

1. After a state of emergency has been declared by the Governor, various state agencies may be directed by the Governor to aid in debris removal under the provisions of KRS 39.400. The removal of such debris, resources utilized, and extent of state participation to supplement local effort will be based on state government decisions applicable to each situation.

2. Removal of debris that is of public interest must consider the following:

a. Advise, assist, and provide necessary certification when debris or wreckage constitutes a health hazard.

b. Whether such removal is necessary to eliminate a hazard which threatens substantial damage to undamaged public or private property.

c. Whether such removal is essential to the economic recovery of the affected community.

d. Whether a benefit is derived, directly or

indirectly, to the community at large.

D. Federal Aid (PL 93-288)

1. At such time as the Governor requests and the President declares a major disaster or emergency to exist, the debris removal provisions of PL 93-288 may be implemented.
 - a. After the Regional Director of FEMA determines that the debris removal is beyond the capabilities of the state and local government and that the use of federal agencies is necessary, the director may direct that agency to accomplish the required work on a mission basis.
 - b. No federal agency shall be requested unless the state and affected local government first arrange an unconditional authorization for removal of such debris or wreckage from public or private property and shall agree to indemnify the Federal government against any claim arising from such removal.
 - c. State and local governments may be reimbursed for eligible debris removal by their own forces, or by contract, when the FEMA Regional Director determines its removal was in the public interest.
 - d. Section 310, PL 93-288 requires that in awarding contracts, preference be given to those individuals, firms or private organizations doing business primarily in the area affected by the disaster.
 - e. No federal reimbursement will be made to a state or local government for reimbursement to an individual or non-governmental entity for the cost of removing debris from his own property except those private non-profit organizations designated in Section 402 (b) of PL 93-288.