



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U. S. ARMY ENVIRONMENTAL HYGIENE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010

Mr. Runyon/lr/AUTOVON
584-3816

08 FEB 1984

HSHB-EW-R/WP

SUBJECT: Water Quality Information Paper No. 24

INSTALLATION EMERGENCY/CONTINGENCY PLANNING
FOR POTABLE WATER SUPPLIES

1. PURPOSE. The purpose of this paper is to serve as a guideline for Preventive Medicine Activity (PVNTMED Actv) and Facilities Engineering personnel in fulfilling their obligations in the area of emergency/contingency planning.

2. REFERENCES. A listing of references is provided in Inclosure 1.

3. GENERAL.

a. One of the most commonly overlooked aspects of installation management and protection is that of emergency/contingency planning. Engineering and PVNTMED Actv involvement is delineated in Army guidelines and regulations (AR 420-46, TM 5-660, and TB MED 576), particularly as it concerns potable water supplies. Of the installations that do have some form of documented contingency plan, however, very few may prove viable should an actual emergency situation arise. Too often, what is documented is "a plan to make a plan" at some future date or a basic listing of who is to be contacted if extraordinary circumstances prevail. Although these are functions which are necessarily included in such an effort, they should not constitute the plan itself. In simplistic terms, a contingency plan can be described as a document which identifies what designated individuals or groups are to do with the existing resources available at what particular point in time. This involves both preevent and postevent activities (in the form of a vulnerability analysis), the identification and management of information and resources, and the formulation of remedial measures which would serve to "harden" (i.e., prepare) the water system.

b. To prepare a plan of this magnitude, it is necessary to further define the types of disasters and water uses to be considered. Based solely upon the magnitude of endangerment and the availability of applicable guidelines, disaster types can be categorized as being associated with widespread nuclear war, the onset of natural geologic and weather patterns, or civil disorder and vandalism. The degree of physical damage incurred on waterworks facilities, as well as power, communication, and transportation networks, is of primary concern. Under stressed conditions, as would be evident with the advent of any one of these emergency situations, it is also important that the intended uses of water and points of dispersion be well

defined. The need for water, although apportioned basically for the sustenance of life, must be determined for fire suppression, sanitation, decontamination, and necessary industrial and commercial processes, as well.

4. DOCUMENTED PREPARATIONS FOR NUCLEAR ATTACK.

a. Much of the emergency/contingency planning guidance afforded in Army and Office of Civil Defense (OCD) publications was drafted in the mid-1960's and dealt primarily with the events surrounding the occurrence of a nuclear attack. Prescribed measures to be taken to protect against the initial blast and concomitant fallout, as well as the provisioning of shelters with food, water, and ancillary equipment (e.g., medical kits and radiation detectors), have been detailed repeatedly. This research has shown that, for healthy adult males, shelters must have available at least 2 quarts of water per person per day and about 2,000 calories per person per day. For planning purposes, provisioning is based on maximum occupancy of a shelter for a period of 2 weeks; therefore, a total of 7 gallons of potable water and 28,000 calories of the proper foodstuffs (i.e., avoidance of highly salted or sweetened items) should be stocked for each individual to be housed. It should be noted that these requirements may vary depending on the age, sex, and health of the individuals to occupy the shelter, and that all of the water supplies delineated are to be used solely for potable purposes--not for hygienic activities.

b. A portion of this information, particularly as it concerns the storage of shelter provisions, is outdated and no longer valid. For example, early guidelines specified the use of water containers provided by OCD which included twin 4-mil polyethylene bags sealed within a 17.5-gallon steel drum. Experience has proven, though, that these inner bags create a condensate which, over a period of time, oxidizes and corrodes the outer drum. This, in turn, adversely impacts the integrity of the plastic bags, eventually contaminating the stored water supply. Additionally, disinfection of these supplies was to have been accomplished using iodine tablets stored in the provided medical kits. Throughout the years, these kits have been removed and/or the tablets have lost their potency. Manufacturers' instructions state that iodine tablets be tested every 2 years to determine whether or not a sufficient amount of iodine is liberated to provide proper disinfection. (This can be accomplished by the US Army Medical Materials Agency.)

c. In the event that such facilities had to be used, very few would likely contain uncontaminated stored water supplies and a viable means of disinfection. This situation is compounded by the fact that routine sampling or inspection of these facilities has probably not been accomplished. These provisions have historically been placed in a shelter with the expectation that they will remain viable for an indefinite period. The OCD has recognized several of these shortcomings and has since ceased providing storage and disinfection materials; however, neither have they published nor

instituted an alternative plan. Provisions such as food, medical supplies, and monitoring equipment have been stockpiled at centrally located depots for distribution when a crisis appears imminent (i.e., "crisis activation"). Conversely, the acquisition, storehousing, disinfection, and dissemination of potable water have been designated as the responsibilities of the local communities and civil defense directors.

5. NATURAL AND CIVIL EMERGENCY SITUATIONS.

a. A somewhat more imminent danger to an installation's vital utilities is posed by the threat of natural disaster, civil disorder, and vandalism. The degree of damage incurred by a particular event is dependent upon its relative magnitude and proximity to the utility and is often difficult to predict. Forewarning of hurricanes and floods can be obtained from the National Weather Service and can be used jointly with an effective management plan to minimize damage to the water system. These events have the potential to contaminate any exposed water supply and can inundate treatment processes and booster stations. This situation is further exacerbated by the fact that they are generally accompanied by regional power outages and a disruption of transportation and communication networks. Access to key points in the system (for purposes of isolating specified areas) and efforts to truck in water or supply bottled water would be severely impaired under these circumstances. Therefore, as much preparation as possible must precede these events. The occurrence of earthquakes and tornadoes is somewhat more spontaneous, with increased structural damage to water treatment plant components, water intake systems, well casings, storage facilities, and distribution mains being characteristic of damage commonly incurred. Extensive and costly repair may be necessary before water supply and distribution systems affected by such disasters can provide a reliable and safe product to consumers--leaving the community without such a source in the meantime.

b. Recent events have made evident the susceptibility of a large utility system to acts of vandalism or civil disobedience. For example, several communities in the Southeastern United States have received threats of contamination by the injection of toxic chemicals into the water system, where they have been forced to cease operations (and consumption) until the existence or extent of the problem was determined. Fortunately, the only loss in both instances mentioned involved time and money. Such isolated events are not the only activities of concern, however. The large-scale wastage of water (simply achieved by opening numerous hydrants), the interruption of lines of communication, a curtailment of maintenance/repair operations, the destruction of watershed areas, and the threat of physical harm to operations and maintenance personnel may be responsible for the debilitation of potable water service.

6. CONTINGENCY PLAN DEVELOPMENT--VULNERABILITY ANALYSIS.

a. In order for the responsible installation authorities to undertake the appropriate actions and thereby rectify potential problem areas, it is imperative that they are cognizant of their system's strengths and weaknesses. Emergency planning at this stage is, in effect, a two-phased operation consisting of the determination of "vulnerable" (weak) aspects of the water system and the institution of remedial measures and delineation of responsibilities.

b. The major activity associated with the first phase is the performance of a vulnerability analysis on the water supply system. In simple terms, this is the determination (or estimation) of the degree to which the system is affected adversely, in relation to its responsibility, by stress/emergency situations. The basic idea is to identify key, or vulnerable, components of the system so that plans can be made to upgrade those aspects as necessary or to prepare for their absence should a disaster situation arise. The vulnerability of a water system involves more than intrinsic structural considerations, for the "hardening" of a system also depends on items such as the number of qualified personnel available, adequacy of stockpiled supplies and materials for emergency repairs and operation, availability of emergency power, and a sufficient communications capability.

c. A logical approach to initiating a vulnerability analysis can be achieved by following a basic six-step program (obtained from American Waterworks Association Manual M19).

(1) Identify and describe separate components of the total water supply system--under headings of source, collection works, transmission system, treatment facilities, distribution system, personnel, power, materials and supplies, communications, and current emergency plans.

(2) Assign characteristics to the design disaster. This may involve a general review, based upon judgment and historical records of local and regional situations, and will suggest what type of disasters, and their magnitudes, should be considered (e.g., earthquakes prevalent in the west, tornadoes in the midwest, and hurricanes in the east).

(3) Estimate effects of the design disaster on each component of the system. This can be done most conveniently in tabular form and is simply a matter of determining the effects of (2) on the individual components identified in (1).

(4) Estimate water demand, both quantity and quality, during and following the design disaster of (2).

(5) By critical review and analysis of information developed in (3), determine the functional operation, or capability, of the water supply system in meeting the requirements estimated in (4)--i.e., how much water would actually be available under stressed circumstances versus demand.

(6) If the system fails to meet the water requirements of (4), identify the key or critical components of the system that are primarily responsible for the failure. Focus on the components interrelated with other components so as to make the entire system inoperative--these are the most vulnerable components. It may be helpful to assume that everything is completely functional and evaluate the impact of any one component failing, then attempt to determine if an adequate water supply could still be furnished. All processes and components should be evaluated in this manner. Next, it is necessary to determine which disaster or emergency situations would impact these critical items. This analysis is an iterative process. Steps (2) through (6) may need to be repeated several times to simulate varying conditions.

7. CONTINGENCY PLAN DEVELOPMENT--DOCUMENTATION OF REQUIREMENTS AND RESPONSIBILITIES.

a. Utilizing the results obtained from the vulnerability analysis, installation authorities should be better prepared to accurately assess the capabilities of their particular facilities and be in a position to facilitate the necessary changes. The contingency plan, which addresses the activities associated with "hardening" the subject system, is comprised of four basic subject areas: a documented inventory of vital information and available resources, the delineation of prescribed remedial actions, the consolidation of personnel responsibilities and instructions, and the identification of employee training requirements. Contingency planning should encompass actions which may be taken to minimize adverse impacts on the system should an emergency situation arise, as well as what can be done subsequent to such an event, prior to resumption of normal utility operations and service.

b. The initial step of this planning phase is critical for the survival of the utility under stressed conditions. It encompasses, among other things, an inventory of stockpiled/available equipment and materials, the identification of alternative water supplies and the proper points of contact, and the compilation of critical maintenance records and current distribution maps. This latter aspect is particularly important as it concerns the location, condition, and operation of system valves and gates, so that key areas may be swiftly isolated or circumscribed during an emergency situation. An inventory of special facilities and industrial activities should be undertaken as well to provide a foundation for the implementation of conservation techniques should the water supply be diminished for a period subsequent to an emergency situation. The

installation contingency plan should identify which activities would continue to receive a full supply of water under such conditions and what amounts would be available to ancillary activities. Priority would be given to hospitals, clinics, shelter areas (as applicable), and scientific and industrial functions necessary for local or national security. Conservation measures adopted must be monitored and enforceable to be effective. Imperative, also, is coordination between emergency services within the installation/community and with neighboring communities. Installation authorities should initiate or participate in a forum, or ad hoc committee, designed to discuss what actions may be taken jointly to provide aid and resources (or evacuation) during an emergency situation. Among those to be involved in this effort are medical groups and institutions, police and fire departments, and civil defense groups. The type of remedial actions which might be employed is dependent upon the particular areas of vulnerability identified in the preceding phase and the extent of protection warranted. In terms of spending construction dollars for this purpose, priority would likely be given to upgrade the weakest or most vulnerable links in the system. Overall, such protective measures may fall into one or more of several fundamental categories (which are discussed in more detail below): adequate structural design of shelter facilities, reservoirs, treatment processes, and storage tanks; sufficient provisioning of such facilities; automatic valving or easy access to manual valves, to close and isolate portions of the system; the development of multiple alternative water sources; and the security of facilities and personnel.

c. Water supply and shelter facilities which meet prescribed architectural and engineering specifications should provide adequate protection of designated resources, as well as prove durable through the years. Certain prevailing circumstances, however, may make it advisable to "overdesign," or adhere to special design specifications, and to reinforce certain structures. Examples of this include utilities located on or near major fault zones or where they may be particularly susceptible to hurricanes or flooding. In this latter case, it may be prudent to construct high berms or levees around these low-lying areas.

d. The next category would closely follow the initial step of defining what necessary materials and equipment are stockpiled or readily available. For instance, a treatment facility should have a 30-day supply of necessary chemicals on hand in case communication or transportation lines are cut for a period of time. To carry this one step further, easily implemented instructions for use of these materials should also be supplied. A case in point involves the civil defense shelters described in paragraphs 4a through 4c. Materials must be supplied to these shelters which would guarantee that the water consumed would be properly disinfected--particularly since the emergency water source may be less than ideal. In the absence of iodine tablets, a container of bleach or hypochlorite could be supplied, together with explicit instructions detailing how to prepare a standard disinfectant

solution, desired concentrations in the water to be consumed, and the duration of contact time prior to consumption. A means of measuring residual concentrations must be supplied as well. As with all stockpiled equipment, such materials must be periodically inspected and maintained to ensure their usefulness during times of duress.

e. The ability to isolate portions of the distribution system is important under normal circumstances, but it becomes crucial when a utility becomes involved in an emergency situation. It is often necessary in these instances to either ensure that potable water reaches a certain end point uncompromised or to keep potentially contaminated water from entering a specified portion of the system. Because lines of communication and transportation are usually hampered during, and subsequent to, an emergency situation, a (temporary) supply must be found which is always available. Such a supply can be found entrapped within the distribution piping in each building and possibly supplemented by water in the community system which can be gravity fed into the desired system. Responsible contingency planners should inventory key buildings (e.g., hospitals and centrally located buildings which can temporarily house large numbers of people) to determine the amounts of water which may be available through this alternative. This would be an effective planning tool for supplying civil defense shelters as well. (Supplemental water may be stored in approved and periodically inspected containers onsite.) The key to this source is, obviously, the documentation of valve records and maps and the accessibility and condition of these appurtenances. Potential sources of water within a particular building or distribution system segment include potable water storage tanks which are not susceptible to physical damage from an emergency situation, fire control tanks, sprinkler systems, hot water heaters, water closet flush tanks, air conditioning or chilled water systems, heating tanks and systems, indoor swimming pools, and reflector pools within buildings. Clearly, certain of these alternative sources are somewhat less desirable than others; therefore, the following restrictions apply: they must meet bacteriological and chemical criteria/standards (sufficient disinfection must be provided), they are isolated within the building/system prior to outside contamination and do not receive backsiphonage from within, they must not be exposed to chemicals used for inhibiting corrosion or lowering the freezing point, suitable devices for dispensing must be present, distribution is independent of outside power sources/electricity, and that they are available during all seasons (not emptied or frozen). The potability of each alternative source must be determined separately.

f. The dependence upon a single source of potable water, even under the best conditions, is risky. Contamination of a surface- or ground-water source without a viable alternative could leave the installation in a tentative state. Ideally, this could be accomplished by tapping a number of available sources onsite (e.g., reservoirs, riverine systems, and extensive aquifer systems). This case is rarely evident, however. Among the

alternative sources which should be considered are an interconnection with a nearby municipal or district supply, a redundancy of piping from the source/treatment works to the distribution network, and an identification of readily available sources where bottled water can be obtained and from which water can be trucked into high demand areas (this would include coordination with the people who would be responsible for transporting the purchased supplies).

g. As with most topics of discussion, matters of utility and resource security are vital at all times--but particularly so during stressed situations. Watershed areas, raw water sources, operational and maintenance personnel, emergency coordination centers and personnel, and accessible components of the treatment, storage, and distribution systems (e.g., pump stations and hydrants) must be adequately secured and protected to ensure a potable water of consistently high quality. Projected plans should discuss methods of thwarting attempts to contaminate or debilitate the system, as well as what must be done once such a case is reported. In the latter instance, potentially affected consumers should be warned to avoid using the water until further notice; water samples should be acquired and analyzed as soon as possible; method(s) of access to the system should be discerned and corrective measures promptly instituted; an interim supply should be provided to consumers; and PVNTMED Actv and public health personnel must be notified. Water treatment plant personnel may have the capability to chemically neutralize the contaminant or diminish its toxic effects (e.g., with increased chlorination); however, such activities must receive the blessing of the appropriate installation and/or regulatory authorities. Effective preventive measures would involve activities such as periodic security checks and secured housing of exposed appurtenances. Highly visible security and resolute enforcement of violators will also serve to protect this vital resource. Along these lines, and in conjunction with the discussion in paragraph 5b pertaining to the injection of toxic chemicals, it should be noted that Congress is currently considering an amendment to the Safe Drinking Water Act which would make it a Federal offense to introduce a potential contaminant into a water system which could cause harm or injury to a consumer.

h. The delineation of responsibilities for emergency situations is rather self-explanatory, yet remains a crucial aspect of the overall plan. Key decision-makers, as well as those responsible for implementing the various aspects of emergency preparation, cleanup, and rehabilitation, should be identified. Among the areas to be covered in this effort are communications, cleanup of debris, utility restoration, provision of temporary services (e.g., potable water, power, and sanitation), security, transportation of equipment and personnel, availability of medical facilities, emergency housing/shelter, and the provision of personnel and human services. It is also vital to identify a central control/operations center from which all emergency activities are to be coordinated.

i. The identification of personnel training requirements logically accompanies the listing of emergency responsibilities, since an employee's assigned function will directly impact the skills one must acquire. Training can be scheduled to meet the particular needs of an installation and is available through certain state programs and Federal agencies. Installation authorities should review the availability and quality of training courses in their area and request help from the appropriate agency should there be an insufficient or inadequate curriculum available. Along with this effort, it would be helpful to evaluate extracurricular skills already possessed by installation employees which would prove beneficial during an emergency situation (e.g., cardio-pulmonary resuscitation, first aid, and scuba diving).

8. COORDINATION WITH FEDERAL AGENCIES. While there are a number of Federal agencies involved in the various aspects of emergency management, the US Environmental Protection Agency (EPA) is the initial point of contact as far as potable water and support requirements are concerned. Questions pertaining to the potability of an alternative supply or the temporary relaxation of drinking water standards should be addressed to the appropriate EPA regional office (see Inclosure 2). On a larger scale, the Federal Emergency Management Agency (FEMA) possesses the overall authority and responsibility to coordinate all Federal disaster assistance. Like EPA, FEMA's headquarters is located in Washington, DC; however, its 10 regional directors work in close contact with the various governor's offices and are familiar with the programs and resources available for various disaster situations. Locations of FEMA's regional offices are listed in Inclosure 3. Personnel from FEMA generally serve as on-scene coordinators for declared disaster situations and are responsible for ensuring that the appropriate resources are utilized to assess and ameliorate damage incurred. It is advised that installation authorities coordinate with regional representatives of EPA and FEMA for the purpose of making the installation's capabilities and objectives known, as well as to obtain preliminary emergency guidance.

9. CONCLUSIONS. It has become apparent--through specific requests made of this Agency and from the experience of Agency personnel conducting surveys at numerous installations--that very few facilities have adopted a viable plan for providing potable water and other vital services during emergency or disaster situations. Every step delineated in this text may not be applicable to every installation; however, they are points which should be evaluated and implemented accordingly. Once a plan has been documented, it and all associated records and maps should be duplicated and disseminated to all responsible activities. Finally, it should be noted that such plans must be periodically reviewed and updated (e.g., every 5 years or when any significant changes occur in installation or tenant activities). Technical assistance and critical review of draft contingency plans can be obtained by contacting this Agency, Water Quality Engineering Division, AUTOVON 584-3919/3554.

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2. COORDINATION WITH FEDERAL AGENCIES. While there are a number of federal
agencies involved in the various aspects of emergency response, the US
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281-2019-3334.

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REFERENCES

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2. AR 420-46, Water and Sewage, 1 July 1978.
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6. APG Reg 500-2, Emergency Plans and Administrative/Emergency Notification System, 7 February 1983.
7. Letter, Assistant Director of the Office of Civil Defense, Department of Defense, Survey, Marking and Stocking Memorandum No. 69, 17 February 1965, subject: Supplying Water Requirements for Fallout Shelters.
8. Letter, National Academy of Sciences, Advisory Committee on Civil Defense, 6 July 1962, subject: Shelter Stocking Problems.
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11. US Army Corps of Engineers, Office of the Chief of Engineers, Transfer of "Water" Functions of Executive Order 11490 to the Corps of Engineers, 19 May 1983.
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14. US Department of the Interior, Emergency Water Administration, Water Emergency Plan, Draft, May 1981.
15. Washington State Department of Social and Health Services, Water Supply and Waste Section, April 1982, Emergency Planning Instructional Guide.

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16. FONECON between Mr. Don Bettge, FEMA, and Mr. Thomas Runyon, this Agency, 9 June 1983, subject: Potable Water Supplies for Fallout Shelter.

17. FONECON between Mr. Fred Haase, FEMA, and Mr. Thomas Runyon, this Agency, 10 June 1983, subject: Potable Water Provisioning for Emergency/Disaster Situations.

18. FONECON between Mr. Carl Siebentritt, FEMA, and Mr. Thomas Runyon, this Agency, 10 June 1983, subject: Potable Water Provisioning and Monitoring for Fallout Shelters.

19. FONECON between Mr. Tom Reutershan, Emergency Coordinator for the US Public Health Service, and Mr. Thomas Runyon, this Agency, 14 June 1983, subject: Disaster Preparedness/Emergency Water Supplies.

US ENVIRONMENTAL PROTECTION AGENCY OFFICES

<u>Region</u>	<u>Regional Office</u>
I	Boston, MA 02203 JFK Federal Building, Room 2203 (617) 223-2226
II	New York, NY 10278 26 Federal Plaza, Room 900 (212) 264-2516
III	Philadelphia, PA 19106 Curtis Building 6th and Walnut Streets (215) 597-3420
IV	Atlanta, GA 30365 345 Courtland Street, NE (404) 881-4450
V	Chicago, IL 60604 230 South Dearborn Street (312) 353-2147
VI	Dallas, TX 75270 First International Building 1201 Elm Street (214) 767-2656
VII	Kansas City, MO 64106 324 East 11th Street (816) 374-5971
VIII	Denver, CO 80203 Lincoln Tower, Suite 900 1860 Lincoln Street (303) 837-4871
IX	San Francisco, CA 94105 215 Fremont Street (415) 556-0893
X	Seattle, WA 98101 1200 6th Avenue (206) 442-1237
Headquarters	USEPA 401 M Street, SW Washington, DC 20460 (202) 755-7575

US ENVIRONMENTAL PROTECTION AGENCY OFFICES

Regional Office	Region
Boston, MA 02203 100 Federal Building, Room 200 (617) 552-5216	I
New York, NY 10278 20 Federal Plaza, Room 900 (212) 264-2316	II
Philadelphia, PA 19106 Curtis Building 875 and Walnut Streets (215) 597-2750	III
Atlanta, GA 30333 125 Gough Street, NE (404) 881-7250	IV
Chicago, IL 60604 230 South Dearborn Street (312) 353-2147	V
Dallas, TX 75270 First International Building 1801 Elm Street (214) 757-2556	VI
Kansas City, MO 64108 324 East 12th Street (816) 374-8211	VII
Denver, CO 80202 Lincoln Tower, Suite 800 1501 Franklin Street (303) 837-4071	VIII
San Francisco, CA 94102 215 Franklin Street (415) 556-0873	IX
Seattle, WA 98101 1200 6th Avenue (206) 442-1337	X
USEPA 401 M Street, SW Washington, DC 20460 (202) 552-7575	Headquarters

FEDERAL EMERGENCY MANAGEMENT AGENCY CENTERS

<u>Region</u>	<u>Nonemergency Regional Office</u>	<u>Relocation Site</u>
I	Boston, MA 02109 442 J. W. McCormick (617) 223-4741	Maynard, MA (617) 897-9381
II	New York, NY 10007 26 Federal Plaza, Room 1349 (212) 264-8980	Maynard, MA (617) 897-9381
III	Philadelphia, PA 19106 Curtis Bldg, 6th & Walnut Streets (212) 597-9416	Olney, MD (301) 926-5544
IV	Atlanta, GA 31792 664 Gulf Oil Building 1375 Peachtree NE (404) 881-2400	Thomasville, GA (912) 226-1761
V	Chicago, IL 60602 1 North Dearborn, Room 540 (312) 353-1500	Battle Creek, MI (616) 968-8142
VI	Denton, TX 76201 Federal Regional Center #206 (817) 387-5811	Denton, TX (817) 387-5811
VII	Kansas City, MO 64106 Old Federal Bldg, Room 405 911 Walnut Street (816) 374-5912	Denver, CO (303) 234-6542
VIII	Denver, CO 80225 Building 710 Federal Center (303) 234-6542	Denver, CO (303) 234-6542
IX	San Francisco, CA 94105 211 Main Street, Room 220 (415) 556-8794	Santa Rosa, CA (707) 525-4222
X	Bothell, WA 98011 Federal Regional Center 130 228th Street, SW (206) 486-0721	Bothell, WA (206) 486-0721
Headquarters	FEMA Disaster Response and Recovery 1725 I Street, NW Washington, DC 20472 (202) 634-6660	

FEDERAL EMERGENCY MANAGEMENT AGENCY CENTERS

Region	Management Regional Office	Relocation Site
I	Boston, MA 02109 1st St. W. McCormack (617) 263-4341	Maynard, MA (617) 897-9381
II	New York, NY 10003 26 Federal Plaza, Room 1348 (212) 764-9880	Maynard, MA (617) 897-9381
III	Philadelphia, PA 19106 Curtis Blvd. E. & Walnut Streets (215) 597-9872	Olney, MD (301) 926-6844
IV	Atlanta, GA 30332 666 5th St. Building 13th Floor (404) 521-2400	Thomasville, GA (919) 236-1361
V	Chicago, IL 60602 1 North Dearborn, Room 240 (312) 323-1800	Beaumont, MI (313) 968-8142
VI	Denton, TX 76201 Federal Regional Center 4506 (817) 387-2611	Denton, TX (817) 387-2611
VII	Kansas City, MO 64108 Old Federal Bldg. Room 402 211 Walnut Street (816) 374-2912	Denver, CO (303) 834-2642
VIII	Denver, CO 80232 2015 W. 7th Federal Center (303) 234-6642	Denver, CO (303) 234-6642
IX	San Francisco, CA 94102 511 Main Street, Room 220 (415) 826-1384	San Francisco, CA (415) 826-1384
X	Bozeman, MT 59717 Federal Regional Center 130 5th Street, SW (208) 488-0121	Bozeman, MT (208) 488-0121
Headquarters	FEMA Disaster Response and Recovery 1725 F Street, NW Washington, DC 20535 (202) 646-6600	