S. DEPOSITORY COPY

HANDBOOK FOR FALLOUT SHELTER MANAGEMENT



DOCUMENTS FEB 28 1967 III OF W. LIBRARY

DEPARTMENT OF DEFENSE

OFFICE OF CIVIL DEFENSE

TABLE OF CONTENTS

	Page
INTRODUCTION	1
CHAPTER 1-PREPARING THE SHELTER FOR OCCUPANCY	3
Introduction	3
The Shelter Management Cadre	3
Planning Shelter Operations	3
The Shelter Situation	3
The Shelter Population	4
Preparing the Shelter for Occupancy	4
Administration	4
Radiological Defense	5
Auxiliary Power	5
Maintenance.	5
Temperature and Atmosphere Control	5
Food and Water Supply	6
Lighting	6
Fire Protection	6
Medical Care and Treatment	7
Sanitation	7
Communications	7
CHAPTER 2—SHELTER ENTRY OPERATIONS	9
	9
General	9
Immediate Action Requirements	9
Orientation to Shelter	10
Registration and Inquiry	200
Organization of the Shelter	-
Shelter Layout	
The Unit	
The Section	
The Division	
Figure 1—Sample Organization of a 100-Person Shelter	
Figure 2—Sample Organization of a 300-Person Shelter	14
Figure 3—Sample Organization of an 800-Person Shelter.	19
Figure 4—Sample Organisation of 1, 500-Person Shelter	15
Figure 5—Sample Organization of a 5,000-Person Shelter	16
Figure 6—Alternative Organization of a 5,000-Person	
Shelter	17
The Department	18
Organization of the Shelter Management Staff	. 18
CHAPTER 3-SHELTER OCCUPANCY OPERATIONS	
General	. 19
Atmosphere and Temperature Control.	. 15
Radiological Defense	11
Communications	20

CHAPTER 3-SHELTER OCCUPANCY OPERATIONS-Continued	Page
Safety	20
Fire Prevention and Control	20
Maintenance of Order	21
Emergency Escape and Rescue	22
Supply	22
Maintenance	23
Medical and Sanitation	23
Feeding	12.00
Sleeping Arrangements	25
Information, Training, Recreation and Religious Activities	27 28
CHAPTER 4-PREPARATIONS FOR LEAVING SHELTER	3.5
	31
General	31
Responsibilities of Management	31
Temporary Emergence	32
Permanent Shelter Emergence	32
APPENDICES:	
A—Shelter Supplies	33
B—Sample Shelter Registration Form	39
C—Shelter Log	41
D—Communications Log	43
E—Sample Daily Schedule for Shelters	45
F—Sample Daily Schedule for Two-Shift Shelters	47
IMMEDIATE ACTION INSTRUCTIONS	40

INTRODUCTION

Effective fallout shelter management can support community shelter plans by providing the trained leadership necessary to assure efficient operation of community fallout shelters.

Although a trained shelter manager may be assigned to a shelter, there is no guarantee that he will reach his particular shelter in an emergency. This handbook will guide the untrained shelter manager on how to solve the more critical management problems and will serve as a reminder for the trained manager.

The community government has prepared plans to support the sheltered population as soon as conditions permit. Personnel, located in community shelters, can provide services in such fields as health and medical care; welfare (registration and inquiry, mass feeding, care of the aged—the handicapped and children); maintenance of law and order; engineering (structural repairs, maintenance and repair of facilities); and many others. This handbook presents step-by-step guidelines for directing survival operations in community fallout shelters. The guidance begins with preparing the shelter for occupancy and carries through to leaving the shelter.

If you must take immediate action, follow instructions on the perforated sheets in the back of this handbook.

PREPARING THE SHELTER FOR OCCUPANCY

Introduction

The first step in preparing the shelter for occupancy is to selectively recruit, train, and assign shelter management personnel to key management positions. Persons in shelter need to be provided technical and management advice in such areas as atmosphere and temperature control, communications, health and sanitation, medical care and treatment, welfare and safety. Although preemergency selection and assignment of a management cadre is desirable, it may be necessary to recruit most of the management staff from the sheltered population after the shelter is put to use.

The Shelter Management Cadre

Specific management requirements will depend upon the shelter layout, type and amount of supplies, availability of communications, availability and competence of shelter leadership, and the shelter environment. Suggested staffing patterns are illustrated in Figures 1 through 6 in Chapter Two, Shelter Entry Operations.

Planning Shelter Operations

It may be possible during peacetime for Shelter Managers or others to carry out work to prepare shelters for occupancy. If this work cannot be accomplished in peacetime, it may have to be done, on an accelerated basis, during a period of international tension. (See Federal Civil Defense Guide, Part G, Chapter 5, "Actions to Increase Civil Defense Readiness"). In planning shelter operations, the planner should:

- · Evaluate the shelter situation.
- Estimate the characteristics and requirements of the probable shelter population.
- Take necessary steps to prepare the shelter for emergency use.

The Shelter Situation

1. General

An analysis of the shelter areas and the buildings in which these areas are located will indicate the management structure best suited for that shelter. Based on this analysis, areas should be selected for use as sick bays, recreation activities, administration, and for conduct of other shelter operations. The shelter management cadre should familiarize themselves with the building and shelter layout to include: location of shelter entrances, windows, and vents; operating instructions and safety precautions relating to air conditioning equipment and heating systems; and the location of and emergency instructions relating to the building electrical system, water and gas mains, and valves.

2. Protection From Radioactive Fallout

The degree of radioactive fallout protection may vary greatly from one part of the shelter to another. Areas which provide the greatest barrier shielding (mass between the source of radiation and the persons to be protected) and geometry shielding (natural protection provided by the distance between the source of radiation and the persons to be protected) should be identified and marked on the building itself or on a posted floor plan layout. Accurate information concerning protection capabilities of the shelter may be provided by architects, engineers or others trained in fallout shelter analysis.

The Shelter Population

The Community Shelter Plan (CSP) provides for the allocation of population groups to shelters. This plan enables the shelter planner to estimate, with a degree of accuracy, the approximate number of persons likely to seek fallout protection in a given shelter or group of shelters and the probable characteristics of this population. This knowledge will enable the shelter planner to anticipate and plan for the unique requirements of a particular shelter. Examples of these requirements might be a need for interpreters, special medicines and foods, and so on. The needs of a sheltered population, of which the greatest number are likely to be school children, will differ somewhat from the needs of adults located in office buildings or factories. Technical competence will vary with the anticipated shelter population. This competence would probably be higher in factory shelters than in schools, churches, or small office buildings, for example.

Preparing the Shelter for Occupancy

1. Administration

Office supplies and equipment, log sheets, registration forms, and other items might be added to Federally supplied shelter stocks to assist shelter management in conducting shelter operations. (See Appendices, A, B, C, and D). Blank spaces in the immediate action instructions located in the back of this handbook should be filled in and, where appropriate, duplicate instructions prepared (especially temporary group leader instructions).

2. Radiological Defense

Shelter Radiation Kits have been stocked in most of the licensed community fallout shelters. Where possible, radiological monitors should be recruited, trained and assigned to shelters prior to an emergency. Instructions for maintenance and operation of radiological monitoring instruments are located inside each kit.

There should be little need for elaborate decontamination supplies and equipment in shelters. Simple procedures to brush or wash away radioactive fallout particles should suffice. Detailed decontamination procedures are contained in the radiological monitoring handbook.

3. Auxiliary Power

Some equipment planned for shelter use may require electric power.

Auxiliary power systems to operate the most essential equipment (air
conditioning, lights, etc.) may be available. Preparations should be
made to put these systems to use in the event normally available power
sources are lost or disrupted. Limitations and capabilities of generators and battery power should be carefully evaluated by knowledgeable
persons and these power sources used accordingly.

4. Maintenance

Equipment located in some shelter facilities for day-to-day purposes, such as air conditioners and refrigerators, may require maintenance support to assure the health, perhaps even the survival, of the sheltered population. Shelter planners should provide some capability for in-shelter maintenance and repair of essential equipment. Many items require some preventive maintenance but much, if not all of this, is regularly performed by building owners or occupants. However, even the most reliable equipment could break down or be damaged during any shelter stay. Equipment operating instructions should be prepared and posted on or near the equipment. Shelter planners may wish to provide some capability for emergency repair and rescue operations by stocking tools, rope and other items in or accessible to the shelter.

5. Temperature and Atmosphere Control

Control of the shelter temperature and atmospheric composition can be as vital as protection from radioactive fallout. Immediate actions necessary to assure proper use of any Federally supplied Packaged Ventilation Kits (PVKs) which might be located in the shelter, are outlined in the immediate action instructions in the back of this handbook. If possible, temperature and atmosphere control specialists should study the shelter environment and prepare and post appropriate control instructions to assure a liveable environment.

A dangerously high effective temperature would pose a threat to the lives and well being of a sheltzred population. Effective temperature relates dry-bulb temperature, humidity, and air movement to physiological comfort or discomfort. Ventilation standards should be based on a 90% reliability of not exceeding 82° F. effective temperature.

6. Food and Water Supply

Federally supplied shelter food supplies are shown on pp. 25, 26. Any plan to supplement Federal supplies should weigh the need for or desirability of this food against requirements for drinking water. Food which provokes thirst, high protein diets, and vitamin supplements which encourage consumption of great amounts of water, should not be planned for shelter use.

Environmental control of the food storage area can do much to increase the shelf life of packaged foods. Low temperatures (below 45°) will limit corrosion of metal containers and will protect foods from insect attacks. Corrosion of metal containers may be further retarded where relative humidity can be maintained under 60-70 percent. Supplies should be stored in moisture free areas with good air circulation to reduce the growth of mold on fiberboard and paper-board packages. Plans to use other than Federally supplied food rations should also take into consideration the requirements for:

- · maintaining an acceptable effective temperature in the shelter
- auxiliary power
- minimizing fire hazards
- · additional water for cooking and cleaning
- cooking facilities
- eating and cooking utensils
- · cooks and foods handlers
- · sanitation and waste disposal
- · feeding in shifts

7. Lighting

Three types of lighting should be considered in shelter planning:

- A general lighting system, preferably a system which can be used independent of commercial power, adequate for performance of general shelter operations. It should be possible to dim some portion of the lighting system to permit sleeping.
- High-intensity spot lighting adequate for reading instruments, performing maintenance, and administering medical treatment.
- A back-up lighting system to provide minimal lighting necessary to perform the most urgent shelter operations. This system may consist only of battery operated lights.

8. Fire Protection

Shelter planners should see that all combustibles are stored properly or removed from the premises. Fuel storage tanks should be checked periodically for leaks. Firefighting equipment should be pinpointed and instructions for its use conspicuously posted. Plans should not be predicated on use of installed sprinkler systems unless there is reasonable assurance that the system would be useable in an emergency and that there is ample supply of water for this purpose.

9. Medical Care and Treatment

Even minor ailments could create serious problems in a shelter environment. Federally supplied medical kits include medicines to relieve minor illnesses and pain. (See Appendix A.) The control of communicable diseases is of particular importance in a confined and crowded shelter environment with limited medical resources. Where possible, shelter planners should develop procedures and materials for care of the sick and injured and, where practicable, for isolation of infected persons. A sick bay need not be predesignated with specific boundaries but it should be located in an area where its boundaries can be expanded or contracted depending upon the patient load. Consideration may be given to stockpiling blankets, cots and other items for sick bay use.

10. Sanitation

Dirt and filth could affect the health and attitudes of the sheltered population. As Federally supplied sanitation supplies do not include brooms, mops, trash barrels, paper or plastic bags, shelter planners may wish to consider adding these items to stocks in the shelter. Other sanitation items which might be added to shelter supplies are listed in Appendix A.

11. Communications

Shelter planners should consider the desirability of providing facilities for in-shelter and beyond-shelter communications. A reliable in-shelter communications system would ease management operations and the beyond-shelter system would enable the sheltered population to receive emergency instructions and information over broadcast stations, including the Emergency Broadcast System (EBS), if activated. Two-way communications between the shelter and the Shelter Complex Headquarters or Emergency Operating Center will permit the sheltered population to request assistance or directions. Dial telephones, if possible on line-load control, should in most cases provide the necessary communications.

SHELTER ENTRY OPERATIONS

General

The management objective during the shelter-entry phase is to get the people into the shelter and settled down as quickly and efficiently as possible. The shelter manager must determine at what point it will be necessary to direct persons arriving at the shelter entrances to other shelters, adjoining hallways rooms or other floors, or to adjoining or nearby buildings. It may be advisable to crowd people into the best protected parts of the facility for the first few hours or more after fallout arrives. As radiation levels drop people can then spread out into less protected areas.

Immediate Action Requirements

Respect for the authority of the shelter manager and his staff will be enhanced if actions during the entry period are carried out in a calm, positive manner. The first members of the shelter staff to arrive at the facility should assume direction of operations until relieved. See the Immediate Action Instructions in the back of this handbook for the lifesaving tasks which should be accomplished during the first hour or so after the shelter is activated, regardless of whether or not all pre-assigned personnel arrive at the shelter.

Orientation to Shelter

Initial orientation to shelter should cover:

- Introduction of the shelter manager and his staff with an explanation of their responsibilities and functions.
- An explanation of the local situation.
- The shelter organization and management structure, including relationships between the sheltered population and shelter management.
- Functions of the shelter advisory committee.
- Instructions for the use of shelter facilities, particularly the sanitation kits.
- The daily schedule (See Appendix E or F).
- 7. Policies pertaining to personal possessions.

Registration and Inquiry

The shelter registration information is useful for:

- Maintaining personnel and duty rosters.
- Discovering useful skills and interests.
- Identifying individuals requiring special care.
- Providing useful information if the local government initiates action to locate missing or separated family members during the shelter period.

A registration form may be stocked in the shelter. (See Sample Shelter Registration Form, Appendix B). If printed forms are not available the required information can be secured on blank sheets of paper or on 5x8-inch cards. A registration form should be completed by the head of each family group and by each unattached individual, then returned to the shelter management. The following data should be secured:

- Family name and given names, age sex, marital status and home address of family members in the shelter.
- Skills, hobbies, and occupations.
- · Disability, special dietary requirement, illness (especially contagious diseases), or injury requiring medical care or treatment.
- Names of absent members of the immediate family and their probable location.
- · Unit/Section and task team assignment.

Organization of the Shelter

The number of shelter managers and assistants necessary to direct and control shelter operations will vary considerably, depending upon the shelter (configuration, size, status of supplies, and other characteristics), the availability and competency of the shelter leadership, and the environment. There are four basic forms of shelter grouping. The members of the management staff who have the major supervisory responsibility for running the shelter are referred to as core management. Those groups whose leaders and members provide the operational, technical, and special services necessary for the survival, comfort, and welfare of the sheltered population are referred to as task teams. Subdivisions of the shelter population into what might be thought of as the equivalents of families, streets, neighborhoods, and municipalities, are referred to as community groups. An advisory committee, consisting of members of shelter management and representatives of the shelter population, is established to act as a liaison group between the management staff and the shelter population.

1. Shelter Layout

The physical layout of the shelter should be given strong consideration in sub-grouping the population. The following recommendations apply if there are a number of separate areas in a particular shelter:

- a. The size of community groups, especially that of the Section and Division, should conform to the size of the separate areas. For example, if a shelter consists of many rooms, each sheltering 60 persons, each Section should consist of 60 persons. In this instance, it would be advisable to organize Sections first, then Divisions. In very large shelters it may be better to first organize Departments (1000-5000 persons) or Divisions (200-300 persons).
- b. Uniformity in the size of community groups is not mandatory as long as groups are not disproportionately sized.
- c. Figures 1 through 6 illustrate methods of organizing population groups in shelters containing 100 or more persons.

2. The Unit (7-12 persons)

Formal organization of the Unit beyond election or selection of a leader is not necessary. In very small shelters (50-100 persons), when the Unit is the only population grouping, the formation of Units may be delayed until after initial operations have been undertaken for the shelter at large. Persons should be assigned to Units based on kinship, friendships and common interests. Any informal grouping which occurs prior to Unit formation should be considered when making assignment of individuals to Units. Reassignment of people to Units is likely to be minimal since they are formed late on the basis of more information than Sections, Divisions and Departments.

3. The Section (40-60 persons)

The size of the Section should tend toward 40 when:

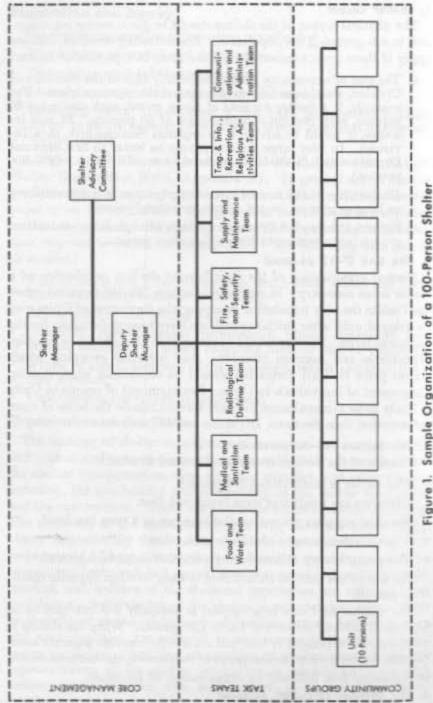
- . The shelter is small (200-400 persons).
- Divisions are small and were organized first.
- Survival supplies are not available or are at a very low level.
- There are few persons who know each other.
- The group is very different in age, sex and social background.

The size of the Section should tend toward 60 when opposite conditions prevail.

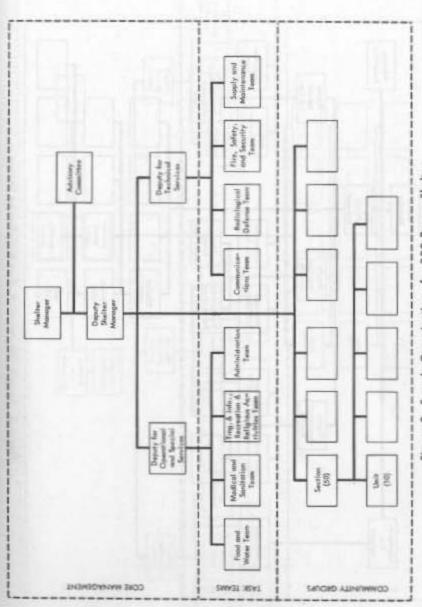
The number of Units in a Section is normally 5-8 but may be as high as 12 in small shelters of 100 to 150 persons. When the shelter is occupied by 400 persons or less, and the shelter contains separate areas (rooms, floors) within the size range of the Section, the Sections should be organized first followed by organization of Divisions.

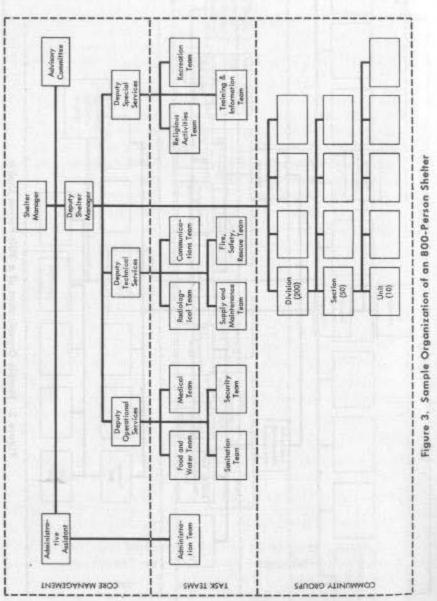
4. The Division (200-300 persons)

Divisions should be organized for shelters having population in excess of 500 and may be desirable for population groups of 300-400.

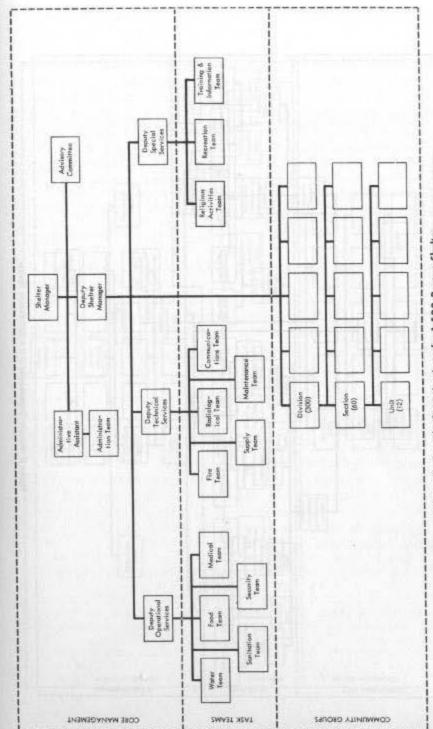


Sample Organization of a 100-Person Shelter Figure 1.

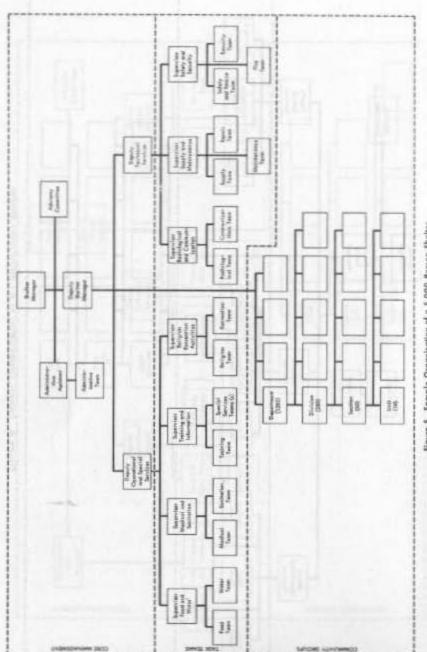




Sample Organization of



Sample Organization of a 1,500-Person Shelter Figure 4.



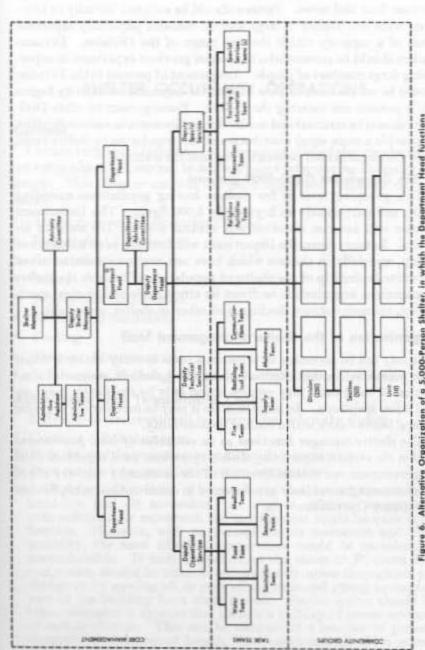


Figure 6. Alternative Organization of a 5,000-Person Shelter, in which the Department Head fures as subshelter manager, with responsibility for both community groups and task teams

Uniformity of group size is more desirable for the Division than at the Section level. The number of Sections in a Division should range between four and seven. Persons should be assigned initially to Divisions when the shelter is large and/or contains physically separated areas of a capacity within the size range of the Division. Division leaders should be persons who have some previous experience in supervising large numbers of people. Assignment of persons to the Division should be on the basis of time of entry if organization activity begins while persons are entering the shelter. Reassignment to other Divisions should be minimal and confined to assignments to reunite families, to provide a more equal distribution of the population to shelter areas, or to distribute skilled persons throughout the shelter.

5. The Department (1000-5000 persons)

This grouping level is for shelters having populations exceeding 1,000, and particularly so beyond the 3,000 figure. The Department Leader will exercise direction and control over all Divisions in his group. In many cases, the Department will function as an autonomous group, especially in shelters which have non-contiguous shelter areas. Effective leadership of the sheltered population will enable the shelter management organization to direct its attention to radiological monitoring, communications, feeding, and other in-shelter operations.

Organization of the Shelter Management Staff

It may not be necessary to organize a team to carry out each major task prescribed in this handbook. In small shelters, successful completion of these tasks may require action only by the shelter manager and a few assistants. In large shelters it may be necessary to organize several teams—each with a limited responsibility.

The shelter manager functions as an extension of local government within the shelter, supervising shelter operations until organized units of government can resume direction of the community recovery effort. Shelter management tasks are discussed in detail in Chapter 3, Shelter Occupancy Operations.

SHELTER OCCUPANCY OPERATIONS

General

Certain task team functions must be accomplished during the shelter entry phase—others can be accomplished later during shelter occupancy. This chapter outlines the more important functions of task teams:

- · Atmosphere and Temperature Control
- · Radiological Defense
- Communications
- · Safety
- · Supply and Maintenance
- · Medical and Sanitation
- · Feeding
- Sleeping Arrangements
- · Information, Training, Recreation and Religious Activities

Atmosphere and Temperature Control

A livable environment will be maintained when the shelter:

- 1. Contains sufficient oxygen.
- 2. Does not contain excessive carbon dioxide concentration.
- 3. Does not have an excessive effective temperature.

Effective temperature is a composite measure of temperature, humidity, and air movement. At a given effective temperature with sufficient air movement, the environment might be quite comfortable. However, with no perceptible air movement and high humidity, the same effective temperature would be considerably uncomfortable. If body temperatures rise about 2° F. above normal, action should be taken to relieve the situation through air exchange or by moving all or part of the sheltered group to another part of the building for a short period. Similar action should be taken whenever it appears that there is a buildup of excess amounts of carbon dioxide. This can be assumed if a number of persons complain of shortness of breath, dizziness or nausea which cannot readily be attributed to other aspects of the shelter environment.

Radiological Defense

Radiological monitoring should be accomplished by trained personnel. If trained monitors are not available in the shelter, directions in the "Handbook for Radiological Monitors", located in the Shelter Radiation Kit, will enable the untrained person to perform most of the radiological monitoring operations.

Communications

When telephones are available and operable, they can and should be used to contact the Shelter Complex Headquarters or Emergency Operating Center. An AM radio receiver is necessary to receive emergency broadcasts of information and instructions. Continuous monitoring of the Emergency Broadcast Station should be maintained. Broadcast monitors should log all pertinent information and relay urgent information to the shelter management.

Messages for dispatch should be limitied to those authorized by the shelter manager. Communications should be maintained with the Emergency Operating Center, Shelter Complex Headquarters, or control points specified in the Shelter Plan or SOP (Standing Operating Procedure) for the shelter concerned. Messages should be limitied to emergency reports, information, and requests. Heavy volume message traffic, such as exchange of lists of names, should not be attempted unless and until authorized by the local government. Communicators should summarize messages and conversations in the communications log (see Appendix D) and relay necessary information to appropriate officials.

PA systems, loudspeakers or battery-powered megaphones for internal communications should be used only by the shelter manager or those authorized by him. Internal communications should be limited to time-critical information and instructions. Routine information should be written and posted in a prominent location, or announced through Department, Division, Section, or Unit Leaders. When regularly-scheduled news announcements are due on radio broadcasts, the volume on receiver sets may be turned up so that the sheltered population can get the information directly. The shelter manager should appoint the best-qualified person or persons to be responsible for the operation and maintenance of communications, including keeping a 24-hour communications watch.

Safety

Shelter safety operations include: fire prevention and firefighting, maintenance of order and enforcement of shelter rules, and emergency escape and rescue. The safety of the occupants will depend largely on early discovery of and corrective action to resolve problems.

1. Fire Prevention and Control

Firefighting equipment should be collected from all parts of the building. Firefighting operations should be directed by experts whenever they are available. Prevention and training measures should include:

- a. Instructions in fire prevention and firefighting procedures.
- b. Control of smoking.
- c. Instructions concerning potential fire hazards such as combustible materials, faulty electrical equipment, wiring, outlets, and switches.
- Removal of hazardous combustibles and repair or neutralization of faulty electrical equipment and wiring.
- Establishment of a 24-hour fire watch and frequent inspection of the shelter.

f. Fire Control Measures:

- (1) Extinguish wood, paper, cloth or rubbish fires with water.
- (2) Extinguish gas, oil or grease fires with sand, dirt, or water fog or fine spray from a hose. Water—except when used as spray or fog—tends to spread rather than extinguish these fires.
- (3) Electric current should be turned off immediately when a fire originates from such a source. The fire may then be fought with sand or dry chemical extinguishers. When the current is turned off and remains off, water can be used.
- (4) Extinguishers with a vaporizing liquid such as carbon tetrachloride and chlorobromethane give off toxic fumes and must not be used in the shelter. If extinguishers of this type are found in the shelter, they should be removed or measures taken to assure their proper use.
- (5) Determine the cause of any fires which might occur and bring it to the attention of the shelter population in order to prevent a recurrence.

2. Maintenance of Order

If qualified law enforcement personnel are not available, public safety functions should be assigned to physically fit and stable personnel. Most infractions of shelter rules should be handled by Unit, Section, Division, or Department Leaders. Procedures should be established to:

- a. Route internal traffic.
- Delineate areas for community groups, sick bay, administration, supply, and so on.
- Enforce shelter rules and acceptable standards of individual and group conduct.

Personal possessions, such as weapons (except those in possession of law enforcement personnel), flammable materials (canned heat, ether or alcohol), electrical applicances, and easily spoiled foods should be disposed of or secured by shelter management. Disturbances, conflicts and disorders may be prevented or minimized by:

- · Periodic checks to prevent waste of food, water, or other supplies.
- · Regular patrolling, particularly in large and multi-room shelters.
- Immediate and forceful corrective action, particularly in the case of serious violations such as assault, revolt against authority, and so on.
- Keeping the sheltered population informed of existing conditions.
 This may include information concerning the National, State and local situation.

3. Emergency Escape and Rescue

Whenever fire, structural weakness or collapse, or other conditions threaten the safety of the sheltered population, the shelter manager may order the evacuation of the shelter. Safety personnel should be prepared to direct this movement. The Emergency Operating Center or Shelter Complex Headquarters should be notified if such action is required. If evacuation of the shelter becomes necessary:

- a. Persons should be directed to the best available fallout protection. Exits, routes, and destination must be clearly defined and announced.
- Movement should be by Units, Sections, Divisions or Departments.
- c. If it appears that the shelter will be uninhabitable permanently, persons should be directed to take with them whatever supplies they can carry. If the evacuation is likely to be temporary (due to ventilation problems, for example), persons should be directed to the best available fallout protection in the vicinity until conditions can be corrected and the shelter safely reoccupied. If persons were subjected to radioactive fallout, outer garments should be discarded or thoroughly shaken or brushed in a covered location as far from the shelter area as possible. Wherever dust would collect, so, too, would radioactive fallout. If shower facilities are available and usable, and there is an adequate supply of water for this purpose, persons requiring decontamination should use these facilities.
- d. Rescue work would be primarily directed toward unblocking exits, releasing persons trapped within the shelter, shoring and reinforcing the shelter, or providing emergency escape exits if regular exits are not usable. In small shelters safety functions may be handled by a single person or small group. Large shelters may require an organization of teams for fire prevention and control, another for maintenance of order, and another for emergency escape and rescue.

Supply

The Federal Government provides a basic store of food, water drums (if needed), medical, sanitation and radiological supplies and equipment for licensed fallout shelters. If a shelter is not provisioned, supplies may be available elsewhere in the building or nearby. Shelter management should be prepared to obtain initial or supplementary supplies prior to the arrival of fallout if conditions permit. Equipment and supplies for the shelter should be inventoried and safeguarded. Items brought into the shelter and which contribute to the welfare of the shelter population should be voluntarily pooled with the shelter supplies. Special health foods, medicines and other personal items should be retained by individuals unless it is desirable to turn them over to Supply for storage and safekeeping. Supplies which are to be retained under central storage, should be collected during shelter entry or as soon thereafter as possible.

Food, water, medical supplies, instruments, and tools should be kept under surveillance and should be issued only to the appropriate shelter leaders, not directly to individuals. Strict controls should be maintained to minimize waste and to assure equitable distribution of available supplies. Daily status reports should be made to the shelter manager to determine the need for any changes in distribution or procedures. This report should include the amount of each item on hand, the amount used, the amount remaining at the end of the day, and the length of time the supply should last at the current usage rate. If a communications capability exists, requests for assistance should be made to the appropriate Emergency Operating Center or Shelter Complex Headquarters. When conditions permit, personnel may obtain initial supplies or replenish stocks from outside sources. (See Chapter Four, "Preparations for Leaving the Shelter").

Maintenance

Shelter maintenance may involve the repair of wiring, plumbing, and mechanical equipment. Air conditioning, power plants, and complicated mechanical equipment will require maintenance by technically competent persons. Maintenance personnel in the Supply and Maintenance Team are responsible for atmosphere and temperature control and assuring proper use of prepositioned Packaged Ventilation Kits (PVKs).

Medical and Sanitation

Medical supply kits and sanitation kits are included among the Federal shelter supplies. To assure the most effective use of these kits, it is essential that procedures be established for their use. These procedures should be developed and prescribed jointly by those responsible for directing medical, and sanitation operations and those responsible for security of shelter supplies. Persons may be permitted to leave the shelter to supplement or replenish supplies only when authorized by the shelter manager. Medical and sanitation operations include:

- Establishment and operation of a sick bay.
- Establishment and maintenance of sanitation standards.
- Establishment and supervision of toilet areas.
- Supervision of waste and trash disposal.
- · Handling the dead.

1. Operation of Sick Bay

As soon as possible after shelter entry operations begin, the Medical Team leader should set up and supervise the operations of a sick bay in an isolated area of the shelter, if possible. He may institute a daily sick call schedule to provide for the less urgent needs of the shelter population. Selected persons may be recruited from the shelter population to assist medical personnel in such tasks as setting up cots, cleaning equipment, preparing splints, and the like.

2. Sanitation Standards

One of the more important tasks of shelter management will be to maintain the general health level of the sheltered population. With the limited amount of medical and sanitation supplies and the closely confined shelter environment, there is always the threat of spreading contagious diseases. Preventive sanitation measures are mandatory. Instruction in basic hygiene should be included in the in-shelter training program.

3. Toilet Areas

Sanitation kit toilets should be set up in corners or relatively isolated sections of the shelter. If possible, there should be separate facilities for men and women. When using these facilities, children under six should be accompanied by an adult in order to maintain cleanliness and to avoid accidents. Existing sanitary facilities may be used if damage to community sewerage and water systems does not prevent it. This determination can be made by contacting the Shelter Complex Headquarters or EOC. If communications are broken or non-existent, regular facilities should be used only if it is reasonable to assume that the sewerage systems have not been damaged and there is an ample supply of water for this purpose. Sanitation personnel should make regular inspections of toilet facilities, supervise the disposal of filled waste containers, and set up empty commodes. Instructions for setting up, use and sealing of filled commodes are contained in the OCD sanitation kits. 'If possible, filled commodes should be moved to a separate room or to the most isolated section of the shelter until they can be moved outside. Do not remove the filled bags from the commode drums. If movement is necessary, do not excessively tilt drums -preferably slide them across the floor. Shelter floors should be kept clean of waste material. If required, sanitation personnel should request assistance from the shelter manager and/or law enforcement personnel in enforcing sanitation regulations.

4. Handling the Dead

Bodies of persons who die in shelter should be moved away from the occupied portion of the shelter and be placed in unused rooms, upper floors, or outside the shelter for later removal or burial.

Feeding

Although healthy persons can do without food for some time if water is available, a food supply in each shelter is important to permit people to meet the demands of shelter living.

1. Basic Food Rations

The food ration provided by the Office of Civil Defense consists of approximately 10,000 calories of food per shelter space. This ration is austere but adequate for relatively sedentary conditions. The food consists of survival biscuits, crackers or bulgur wafers, and a carbohydrate supplement packed in weather resistant fiberboard cases containing either two 5-gallon cans or six 2½-gallon cans. Any, or a combination of the food items, may be located in any given shelter. (See table which follows).

2. Special Foods

Special foods brought into the shelter should not require cooking. Temperature of food will soon equal the temperature of the shelter. It may be desirable to turn over personal stocks of special foods to shelter management for safekeeping.

Food Container Data

Item	Can Cans Size Per (Gal.) Case		Case Approx. Outside Dimensions	Net Weight Per Case (Lb.)		Pieces Per Lb. (No.)	Approx. Size Piece
			(Enches)	Max.	Min.		(In.)
Biscuit or Cracker.	5	2	19¼ x 9¼ x 14%.	36	24	89 Min	2 x 2
Biscuit or Cracker.	21/2	6	26½ x 11½ x 13½_	42	40	62 Min	2½ x 2½
Bulgur Wafer	5	2	19¼ x 9¼ x 14½.	64	64	24 Avg	1% x 1%
Carbohydrate Supplement.	5	2	19¼ x 9¾ x 14½.	74	64	80 to 120.	

Crackers and biscuits are in unit stacks of individual pieces, double pieces or quadruple pieces. Wafers are in 2-unit stacks of individual pieces. Carbohydrate supplement is bulk packed. An individual cracker, biscuit, wafer, or carbohy-drate supplement piece constitutes a single piece.

The quantity of food to be issued for each meal must be determined by the Shelter Manager on the basis of the anticipated period of occupancy and the actual number of shelter occupants.

Issue of Single Pieces Per Serving* (Approx. 125 calories)

(Issue one of the six portions below)

1. (2. (3.	Crackers or biscuits/5 gal. can Crackers or biscuits/2½ gal. can Wafers/5-gal. can	6 4 134
4. (Crackers or biscuits/5-gal. can and Carbohydrate Supplement.	14
	Crackers or biscuits/2% gal. can and Carbohydrate Supplement.	{3 2
6.	Wafers/5 gal. can and Carbohydrate Supplement	11

*Based on issue of 6 servings per day.

Each water storage container holds 70 quarts of drinking water (17.5 gallons).

A siphon hose and instructions for use in drawing water from the water drums are contained in each sanitation kit. Drinking cups and lids (6 oz. capacity) are also contained in the sanitation kits.

3. Conservation of Food and Water

Conservation of food and water requires strict control of distribution and a continual campaign against waste. Until the fallout situation can be assessed, the first day's ration should consist of 750 calories of food and one quart of water per person. Adjustments can be made to increase or decrease this ration when the fallout situation and probable duration of shelter stay has been determined. Persons should not be given more food than they can consume at a given time.

4. Scheduling Meals

Even if the food supplies are very limited, it is desirable to serve meals on a regular schedule. It is recommended that shelter management try to distribute five or six servings throughout the day in conjunction with serving of water. This may take the form of (1) five to six equal servings throughout the day, or (2) three larger servings at hours corresponding to normal mealtimes and two or three smaller amounts between meals-mid-morning, mid-afternoon, and before lights out. Space considerations will dictate where people are fed, as shelters will be too crowded to provide separate eating areas. Where Federally supplied food rations are the only food provided, there is no need for separate feeding areas. The food ration should be based on a daily allotment of calories as determined by the shelter management. There should be a system to safeguard individual cups and unused water rations. One method is to store cups in holes cut in opened cardboard cartons. Cups may be identified by writing the owner's name on the lid. Each Unit or Section should establish its own cup security.

5. Methods of Food and Water Distribution

a. Stationary distribution-One or more distribution points may be set up within the shelter. Persons may file past the designated points to receive their allotted portions of food and water, and any necessary utensils, and return to the designated eating area (generally the main housing area of the shelter). In large shelters, food and/or water may be issued by Sections or Divi-

- sions to Unit Leaders who, in turn, distribute the rations to the people.
- b. Moving distribution-Food and water, along with any necessary containers and utensils, may be delivered to designated eating areas. This system is particularly appropriate if food or beverages other than Federally supplied items are served.

6. Food Sanitation and Hygiene

To minimize the threat and spread of disease, it is necessary to take precautionary measures in the preparation and serving of food. Distribution of individual rations and immediate disposal of waste is a sound sanitation procedure. Precautionary measures should include health inspections of feeding personnel, particularly the cleanliness of their hands. Use of plastic, paper, or gloves for distributing food should be mandatory. Empty containers and waste food may be dumped into plastic bags or other containers after each meal and stored until it is safe to remove them to the outside. If only Federal survival supplies are used, there should be little problem of food waste.

7. Feeding Personnel

The number of persons required to carry out feeding functions will depend on the design of the shelter facility, the feeding system adopted, and the number of occupants. In large shelters or where feeding operations are limited to the basic food and water ration, the person responsible may designate an assistant for each section in the shelter. Team members should be recruited from the shelter occupants. Persons selected to supervise feeding functions are responsible for:

- · Planning and directing the system of food preparation and distribution.
- · Issuing the food rations as directed by the Shelter Manager.
- · Sanitary food handling.

Sleeping Arrangements

Sleeping arrangements in community shelters, while austere, must be carefully considered and planned. Since one-third of every day will be devoted to sleeping, arrangements should be as comfortable as conditions will allow. The Federal provisions placed in shelters do not include sleeping equipment. The sheltered population must sleep on the floor, using their personal effects as pads or covering. A substantial number of floor pads may be made by utilizing empty fiberboard food boxes. These boxes, when carefully opened and laid flat on the floor area, will provide a pad approximately 6 feet long by 2 feet wide. Blankets, air mattresses or portable cots should be allowed inside the shelter if there is enough space. Shelter management need not interfere with personal use of these items unless they are urgently needed for the sick or infirm or they create a morale problem. The loan of these items should be solicited on a voluntary basis.

1. Sleeping Space

It is the responsibility of shelter management to plan and allocate space to provide the most comfortable and manageable sleeping arrangements. The most compact and sanitary sleeping arrangement is head-to-foot sleeping. Sleeping areas may be assigned by Section (groups of 40-60) or Units (groups of 7-12). Within groups, persons should be separated on the basis of sex, age, and marital status. Single men may be separated from single women by the simple expedient of placing the men at one end of the sleeping area and women at the other, with family groups in between.

If the shelter space is broken up by walls or partitions, some variations of sleeping space are possible. An isolated area for a sick bay is one priority use of such space. Separate sleeping quarters might be provided for the elderly, for youths, etc. The pattern for each shelter must be decided on the basis of the space available and the characteristics of the shelter population.

Where completely separate rooms are included in the same shelter, shift sleeping can be considered. This might result in more individual sleeping space and less crowded areas for non-sleeping activities. Shift assignments for sleeping would allow fuller use of available cots and bedding.

2. Improvised Partitions

If there are no natural partitions, the shelter management may be able to improvise. If the radiation levels permit, short trips may be made to other parts of the building, or outside to find partition material, such as folding screens, portable blackboards, map racks, bulletin boards, signs or dividers. Even shelter supplies may be stacked to provide partitioning.

3. Bedding

Clothing may have to serve as bedding in the absence of blankets. Persons should be encouraged to lend their extra clothing to those in need.

4. Sleeping Hours

If only a single open space is available, all people should observe the same sleeping hours. (See Appendix E, Sample Daily Schedule for Shelters). The lowest possible noise and light levels should be enforced during this period. Unit and Section Leaders should be held responsible for sleeping arrangements, use of blankets, extra clothing for bedding, etc., within the space assigned to their groups.

Information, Training, Recreation, and Religious Activities

1. Information, Training and Recreation

The success of shelter management will largely depend upon the cooperation, understanding and support of the sheltered population. This response can best be obtained by keeping the people informed and by conducting organized, purposeful and needed activity. Shelter Management is responsible for:

- Keeping the sheltered population informed concerning the situation within the shelter and, when appropriate and known, the National, State, and local situation.
- Training the sheltered population in such areas as: shelter rules, regulations, and safety precautions, responsibilities of shelter management and the shelter population, the probable postattack environment and recovery plans (if known), and acceptable attitudes and relationships.
- · Establishment and maintenance of morale.

A diversified recreation program, appropriate to both sexes and all age groups, is desirable. Preferences of the sheltered population should be observed wherever possible but vigorous and strenuous activities should be discouraged in order not to raise the temperature of the shelter and to avoid stimulating appetites for food and water. Friendly competition can do much to build morale and make shelter living more tolerable. In small shelters, in formation, training, and recreation activities can be conducted for the entire population at one time. In many cases, however, it will be necessary to schedule a number of activities in rotation or concurrently.

2. Religious Activities

It is important that provision be made for religious activities. A period should be set aside each day for those who wish to worship or hold religious discussions. If a clergyman is not present in the shelter, the best qualified layman should plan and conduct spiritual activities. Those selected may be useful in assisting the shelter management with problems involving emotionally disturbed persons. Spiritual activities within the shelter should reflect the thinking and wishes of the shelter population.

PREPARATIONS FOR LEAVING THE SHELTER

General

The length of shelter stay depends upon the radiation level of the immediate area and the availability of adequate and safe lodging facilities within the community or elsewhere. It may not be possible to predict when persons may leave the shelter temporarily or permanently until several days after an attack. Danger from radioactive fallout may continue in some areas for an extended period. The shelter facility may serve as a base for mass care or postattack recovery operations for some time.

The measurement of the radiation dose rates and rough prediction of radiation levels are relatively simple. Predicting the probable length of shelter stay requires an analysis of several factors as: the effect on the shelter population of severe crowding, inadequate ventilation, lack of water and medicine, etc., as well as the availability of appropriate outside lodging. There is no sure way to determine in

advance the best time to leave a shelter.

Responsibilities of Management

Where radiation is present, the most important thing for the shelter manager to remember in deciding whether occupants should leave the shelter (temporarily or permanently) is: the longer the wait, the less the danger. To take advantage of this time factor, it is necessary to have an adequate supply of survival items. Shelter living may be made progressively more comfortable by obtaining additional materials from outside the shelter whenever conditions permit. Good lights and reading materials, additional food and water, recreation items and other conveniences assume increasing importance in the hours and days following an attack.

Management should tell the sheltered population why they should stay in the shelter. Persons should not be exposed to radiation unless it is necessary to secure needed supplies, or to accomplish vital decontamination, repairs, or other operations. The shelter manager should concern himself with the radiological situation in the surrounding areas. He should keep track of the radiation exposure of the shelter population in order to minimize the danger to individuals or groups. Community government officials in the Emergency Operating Center (seat of emergency government) will provide guidance regarding exposure to radiation. When communications are disrupted or non-existent, shelter management must rely on Emergency Broadcasts for radioactive fallout information.

Temporary Emergence

Emergency trips from shelter may be required to replenish serious shortages in survival items or to meet some other emergency need. Missions outside the protected shelter area should be planned jointly by the radiological monitors and the shelter manager. When communications are available, the shelter manager should obtain advice of the Shelter Complex Headquarters or Emergency Operating Center on decisions regarding temporary emergence from shelter. In case communications are not available or are disrupted, follow instructions in Chapter VI, "Handbook for Radiological Monitors," located in the Shelter Radiation Kit. If several trips outside the shelter are required, these trips should be made by small groups on a rotating basis.

Permanent Shelter Emergence

The shelter manager should exercise caution in advising the sheltered population of the probable length of shelter stay. Until he is fairly sure of the accuracy of any forecasts or until his predictions have been confirmed from the outside, he should refrain from specifying an anticipated departure time. Before permanently vacating the shelter, the shelter manager should be assured that persons can return to their homes or can be accommodated in lodging elsewhere. Plans for vacating the shelter must be consistent with the over-all postshelter emergency plans of the local government.

SHELTER SUPPLIES

	211	ELIER	SUP	PLIES
PROVISIONED BY GOVERN	THE I	FEDE	RAL	DESIRABLE SUPPLEMENTARY ITEMS
 Food and Water—Survers, waters and carbo (10,000 calories per s drums (to be filled by 	hydrate helter s	Ingredients for baby formulas special food for dietary problems variety of easy to store and propare foods. Food heating equipment, disposable paper plates, utensils an cups. Canned liquids, such as fru juices and soups. Extra water for cooking, washing and decontamination.		
Medical and Sanitat medical care in shelt each kit). a. Medication Acetylsalicylic acid tablets, USP, 5		contair		Special medicines
gr., 500's (aspirin)	bottle	1		Service and region
USP, 5 gr., 1000s,	baset.		3	The second second second
(aspirin) Cascara Sagrada ext., tablets (laxative), N.F.,	bottle			
4 gr., 100s Eugenol, USP, 1 oz.	bottle	1	6	
(toothache			- 1	
(toothache remedy)	bottle	1		
(toothache	bottle		- 20	

SHELTER SUPPLIES—Continued

PROVISIONED BY GOVER		TARY ITEMS		
Medical and Sanitati	ion—Cor			
Medication	Unit	Kit A	Kac	
Kaolin 2 and pectin				
mixture, 1 pt.			100	
(diarrhea medi-				
cine)	bottle	1	6	
Knolin 1 powder, 40				
grams, (alterna-				
tive items)	bottle	3	16	
Pencillin G, tablets,				
USP, 250,000				
units, 100s	bottle	2	12	
Petroleum, white,				
USP, 1 lb. (pe-				
troleum jelly)	csn	1	3	
Phenobarbital				
tablets;				
USP, 1/2 gr., 500s	bottle	1 :		
USP, 16 gr.,			200	
1000s	bottle		3	
Soap, surgical, 1%				
oz., with 2%				
hexachlorophene	cake	6	36	
Sodium bicarbonate				
USP, 1 lb. (bak-			5.5	
ing soda) USP	can	1	2	
Sodium chloride,			-	
USP, 1 lb. (table				
salt)	can	1	2	
Sulfadiazine				
tablets:	HE STREET			
7½ gr., 500s	bottle	. 1 .		
7½ gr., 1000s	bottle		3	
Tablet, water puri-				
fication, iodine,				
50s	bottle	2	12	
b. Dressings	Unit	Kit A	Kit C	
Bandage, gauze, roller, 2" x 6				
yd., 12s	pkg.	1	6	
Bandage, muslin,				
triangular,				
37x37x52"	each	1	6	
Cotton, purified,	pkg.	1	3	
1 lb. Pads, gauze,	pkg.	1	6	
surgical, 4x4", 200s				

SHELTER SUPPLIES—Continued

PROVISIONED BY GOVER	THE FE	DESIRABLE SUPPLEMENTARY ITEMS	
2. Medical and Sanitati	ion—Contin	Annual Laboratory	
c. Other	Unit K	it A Kit C	and the second s
Applientor, wood,	pkg.	1 6	Prince.
eotton tipped end, ½" x 6", 100s			A STANLEY
Depressor, tongue, wood, 100s	box	1 3	The state of the state of
Forceps, splinter, tweezer, 3%"	each	1 1	
Pin, safety, 1½", 12s	pkg.	3 12	
Scissors, pocket, straight, 4", double blunt	each.	1 3	120
Syringe, fountain, plastic and attachment	each	1 1	Section States of Section 1
Thermometer, human, clinical, oral, stubby bulb, with case	each	1 4	the last one and size is said
d. Sanitation			The second secon
Two sizes are fur supplies for 25 sp 50 spaces.	paces, and		
	SK III	SK IV	
Paper, toilet tissue	5 rolls	10 rolls	Shallow pans and germicidal solution for hand washing.
Seat, commode, plastic	1 each	1 each	
Opener, can, hand-operated	1 each	1 each	the same of the same of the
Pads, sanitary, heavy	1 dozen	2 dozen	Infant supplies.
Pads, sanitary, regular	2 dozen	3 dozen	
Hand Cleaner, waterless, Pt. (Note 1)	1 ean	1 can	Paper towels, disposable wash- cloth packets, deodorants, mouthwash, facial tissues.
Gloves, polyethylene	1 pair	1 pair	
Spout, dis- pensing, water	I each	1 each	
Tie-wires, bag closures	1 each	1 each	Trash cans, brooms, mops, dust pans, ash trays, plastic and
Cups and Lids (Note 2)	35 each	70 each	paper bags, cog and wheel type can opener.

SHELTER SUPPLIES—Continued

PROVISIONED BY GOVERN	THE FI	EDERAL	DESIRABLE SUPPLEMENTARY ITEMS	
Medical and Sanitation Sanitation—Contin		The Committee of the Lorentz Land		
	SK III	Type SK IV	and the second	
Commode chem- ical, liquid, bottle (Note 3)		1 qt. ea.	Dry-bulb thermometers, humidity indicators.	
Commode chem- ical, granular, packet (Note 3)	6 each	12 each	B2	
Bag-liners, poly- ethylene, commode	I each	1 each	and the second	
Instruction Sheet	1 each	1 each	- 1, light	
Fiberboard Boxes	2 each	2 each	Control Control Spirit	
Fiber Drum (Note 4)	1 each	1 each	the state of	
Note 2—Initial stocks cups. More durable contained in later provis Note 3.—One or the Later stocks contain the Note 4.—The fiber drus chemical toilet. Meta intended for this purpo	ips (35 m sions. s other is packets. n is used a l water	nd 70) are s included. s the initial drums are	The second real real real real real real real real	
consumed.		VENE I	Clothes brushes, shower facilities raincoats, tarpaulins (plastic, elo-	
 Radiological Defense Kits, one per 50-1,0 "Handbook for Radis contained in each 	00 shelter liological kit desc	or canvas).		
instruments and thei	r use.)		Pails of sand and/or water, stirrup type water pumps, dry chemica	
 Safety (fire protecti rescue)—none. 	on, law	fire extinguishers, tools (hammers pliers, wrecking bars, screw- drivers, wrenches, saws, rope shovels, jacks, flashlights, and batteries).		
5. Communications—no	ome.	Battery powered or transistor radio, telephone and two-way radio, battery powered mega- phones.		

SHELTER SUPPLIES—Continued

PROVISIONED BY THE FEDERAL GOVERNMENT	DESIRABLE SUPPLEMENTARY ITEMS
6. Sleeping equipment—none.	Blankets, sleeping bags, mats, air mattresses, cardboard sheets, cots, bunks.
7. Administrative supplies—none.	Log sheets, pads, pencils, rulers, bulletin boards, tacks, tape, clip- boards, string or twine, shelter registration forms.
8. Information and training—none.	Training materials, books and equipment to meet recreational and spiritual needs.

PPENDIX

SAMPLE SHELTER REGISTRATION FORM

FAMLIY NAME	(ple	sae print)	HOME	ADDRESS_			
The second			The second of	ILLNESS OR	TALENTS	ASSIGNED TO:	
I. (head of family or single person)	AGE	SEX	SKILLS OR OCCUPATION	DISABILITY	OR HOBBIES	Unit/Section	Task Tean
2. (others—indicate rela- tionship to 1)							
3.							
i.							
5.							
S							
OTHERS IN FAMILY— NOT HERE			PRESUMED WHEN	REABOUTS OR	UNKNOWN		

LOCATED

Event No.	Date/Time	Description of Event	Action Taken

COMMUNICATIONS LOG

No.	Date/Time		From To Message		_ From To Message Content		Message Content	Recorder
	Rec'd	Sent						
		9 3		Hill				
				1111		18		
						8		
						I i		
						3		
						-11-		
				300		15		
						100		

SAMPLE DAILY SCHEDULE FOR SHELTERS

0700	Reveille	
0730	Receive breakfast rations	
0800	Eat breakfast	
0830	Clean-up	
0900	Sick call	
0930	Training session or group meeting	or continuation of sick call or recreation
1000	Water and biscuit break	
1030	Training session	
1100	Training session-Ongoing educati	on for children
1130	Free time for quiet activities	
1200	Receive lunch rations	
1230	Each lunch	
1300	Clean-up	
1330	Information and training session	Nap for children
1400	Information and training session	Ongoing education
1430	Emergency drills	
1500	Water and biscuit break	
1530	Recreational activities	
1600	Recreational activities	
1630	Free time for quiet activities	
1700	Receive dinner rations	
1730	Eat dinner	
1800	Clean-up	
1830	Daily briefing	
1900	Training session	
1930	Planned recreational activities	
2000	Planned recreational activities	
2030	Free time for quiet activities	
2100	Free time for quiet activities	
2130	The state of the s	
2200	and the same and description	
2230	Prepare for sleep	
2300	Lights out	

SAMPLE DAILY SCHEDULE FOR TWO-SHIFT SHELTERS

SHIFT A	TIME	SHIFT B
Reveille	0700	Recreation
Receive breakfast rations	0730	Recreation
Eat breakfast	0800	Free time for quiet activities
Clean-up	0830	Prepare for sleep
Sick call	0900	Sleep
Group meeting/sick call	0930	
Water break; opt. biscuit break	1000	
Training session	1030	
Training session	1100	
Free time for quiet activities	1130	
Receive lunch rations	1200	
Eat lunch	1230	
Clean-up	1300	
Training session	1330	
Training session	1400	
Water break; opt. biscuit break	1430	
Quiet recreation	1500	
Quiet recreation	1530	
Free time	1600	
Receive dinner ration	1630	
Eat dinner	1700	Reveille
Clean-up	1730	Receive breakfast rations
Free time	1800	Eat breakfast
Recreation	1830	Clean-up
Recreation	1900	Sick call
Shelter briefing	1930	Shelter briefing
Training session	2000	Training session
Emergency drills	2030	Emergency drills
Water break; opt. biscuit break	2100	Water break; opt. biscuit break
Free time for quiet activities	2130	Free time for quiet activities
Free time for quiet activities	2200	Receive lunch rations
Prepare for sleep	2230	Eat lunch
Sleep	2300	Clean-up
	2330	Training session
	2400	Training session
	0030	Water break; opt. biscuit break
	0100	Quiet recreation
	0130	Quiet recreation
	0200	Free time for quiet activities
	0230	Receive dinner rations
	0300	Eat dinner
	0330	Clean-up
	0400	
	0430	Training session
	0500	
	0530	
	0600	The state of the s
	0630	Water break; opt. biscuit break
	47	

IMMEDIATE ACTION INSTRUCTIONS

Refer to and follow instructions on Instruction Sheet No. 1, beginning on the next page

IMMEDIATE SHELTER ENTRY INSTRUCTIONS FOR MANAGING THIS SHELTER

- Take charge and follow these instructions until you are relieved by the preassigned shelter manager, a member of the shelter management staff, an official of the primary building user or someone else you recognize as better qualified to manage this shelter.
- 2. Select persons to help you—there is a lot to be done quickly. The set of detachable sheets of instructions at the end of this handbook are to be torn out and handed to persons who can assist you. Write in the names of those persons to whom you issue these instructions on the space provided, in order that you may call for reports from these persons later. The identical set of these instructions that follows should be left intact so you know what each team is expected to do.
- 3. The senior law enforcement official located in the shelter is the first choice to head the Fire, Safety and Security Team. If no law enforcement official is available, select one of the following: fire official, military or industrial police, or the person most experienced in handling movement of large numbers of people. Give him INSTRUCTION SHEET NO. 2 and the perforated copies of INSTRUCTION SHEET NO. 3. Tell him to select a temporary group leader for each 200 persons in or entering the shelter and to issue an INSTRUCTION SHEET NO. 3 to each.

-	Constant Book and the second	(Telephone, radio (for AM
	emergency broadcasts))	
	n any packaged ventilation helter they are located	kits (PVKs) are stocked in this
	Take action to prevent anyone Supply and Maintenance Team	from opening these kits except the Leader.
5. R	Report activation of this shelt	ter to
		(Shelter Complex Hq.,
	EOC, etc.)	Radio
10	EOC, etc.)	

scribed on these sheets will enable you and your assistants to carry out the most urgent requirements to save lives during the first hour or so after the shelter is activated. It is mandatory that you and your assistants familiarize yourselves with the handbook at the first opportunity.

9. Take one of the following actions:

If an attack has taken place:

Wholly or partially close windows, doors and vents through which fallout particles might enter the shelter. The danger of approaching radioactive fallout will be announced over

on AM radio.

(dial number)

If an attack is imminent (announced by the Emergency Broadcast System (EBS) and/or you hear the "Take Cover" sirens an up and down warbling tone):

Open windows, doors and other openings until the attack occurs or the immediate danger of an attack has passed. Persons should be directed to sit down along the walls, around or close to columns or other supports and as far away as possible from windows and objects likely to be thrown about in case the shelter receives some shock effects. The sheltered population should remain in these protective positions for at least five minutes after hearing an explosion or seeing a bright flash.

- 10. As soon as the movement of people into the shelter subsides, call the temporary group leaders together for an orientation (unless the shelter is small enough to permit orienting the entire sheltered population at once). This orientation should include (as a minimum):
 - a. A statement of the existing local situation as it can best be determined.
 - b. The plan for formal organization of the shelter.
 - c. The critical safety, health, sanitation, welfare and conservation measures which must be observed.
 - d. Other ____

Temporary group leaders will, in turn, orient their groups.

FOR TEAM LEADERS

Do Not Remove These Instructions From the Handbook

IMMEDIATE ACTION INSTRUCTIONS FOR THE FIRE, SAFETY AND SECURITY TEAM LEADER

1.	In the absence of law enforcement authorities, select persons to direct and control movement into the shelter through entrances shown on the shelter floor plan
	posted Tell them to
	direct persons to areas away from the entrances and to tell the people that further information and instructions will be given to them later.

- 2. Recruit assistants to help organize persons entering the shelter into temporary groups of about 200. Appoint a temporary leader for each group and issue each an INSTRUCTION SHEET NO. 3. Give a list of selected group leaders to the Shelter Manager.
- Recruit law enforcement and other personnel to assist you in carrying out the following tasks:
 - a. Maintain an approximate count of persons inside the shelter. Be prepared to inform the Shelter Manager of the approximate number of persons inside the shelter at any given time as well as the number of persons outside waiting to get in.
 - b. Prevent persons from bringing pets, bulky items (blankets, pallets, etc. are permissible), and other materials into the shelter which could pose a morale or law and order problem. Doubtful cases should be referred to the Shelter Manager. Do not authorize personal search of persons entering the shelter.
 - c. When directed by the Shelter Manager, direct persons who cannot be accommodated in the shelter to other areas designated by the Shelter Manager.
 - d. Move items outside which are in the way such as crates, machinery, furniture, and so on.
 - e. Open windows, doors, vents and other openings unless an attack has taken place or you are directed otherwise by the Shelter Manager or Radiological Monitor.

3. Continued.

- f. Locate and safeguard shelter supplies, mechanical and electrical equipment, and other facilities, which might be needed for the well being of the sheltered population.
- g. Collect and secure firearms (except those in possession of law enforcement officials), flammables, alcoholic beverages, and other items likely to cause problems.
- h. Enforce "no smoking" rules and other shelter regulations issued by the Shelter Manager.
- Fire fighting personnel should collect fire fighting equipment from other areas in the building and activate fire prevention measures.
- 5. Establish fire and security patrols on a continuous basis.
- 6. Rescue trapped and injured persons inside or near the shelter.

IMMEDIATE ACTION INSTRUCTIONS FOR TEMPORARY GROUP LEADERS

You have been selected, on a temporary basis, to assist the Shelter Manager in controlling the movement of people into this shelter and in carrying out other immediate lifesaving tasks. Appoint as many assistants as necessary to help you control your group—one for every 50 persons should be adequate for a short time. A formal organization of the shelter will take place as soon as movement into the shelter is completed. You can assist the Shelter Manager by carrying out the following:

- 1. Direct your group to the area designated by traffic control personnel.
- 2. Tell your group not to smoke until further notice.
- 3. Act as a buffer between the persons in your group and shelter management personnel. Ask your group to resolve their own problems if at all possible and to present emergency requests or reports to you, not to the Shelter Manager! Tell your group that problems you cannot resolve will be passed on to the Shelter Manager as soon as possible but that his immediate and most urgent task of the moment is to get people moved into the shelter.
- 4. Recruit the best qualified person possible to serve as a medical team leader. Refer all medical problems to him. Point out to the group that this means of handling the group's medical problems is temporary. A centralized medical care and treatment system will be established in the shelter later.
- Tell your group to sit or remain in the assigned location until the Shelter Manager indicates a more liberal policy can be adopted.
- Unless the Shelter Manager has been able to orient the entire sheltered population, pass on the information and instructions given you by the Shelter Manager in the temporary group leaders orientation.

IMMEDIATE ACTION INSTRUCTIONS FOR THE SUPPLY AND MAINTENANCE TEAM LEADER

- If there are Packaged Ventilation Kits in the shelter, take the following action:
 - a. Open the kits immediately. (They should be set up and ready to operate within the first hour after the shelter is opened. Refer to instructions before setting up the kit.)
 - Locate, identify, and control all components, particularly the ductwork.
 - c. Follow instructions exactly. The instructions are based on engineering requirements.
- Test operability of, and, where necessary, temporarily restore or repair electrical and mechanical equipment and facilities essential to the comfort, safety, and welfare of the shelter occupants.

3.	Location of outlets, valves, etc., are:
	a. Fuse box(es)
	b. Valve(s)
	(specify—I.e., water, gas, etc.)
	c. Water outlet(s)
	d. Other
4.	e. Emergency lights are located
	(If not inside shelter, indicate nearest location)
	Tools suitable for maintenance and rescue work are located

- (if not inside shelter, indicate nearest location)
- In case the shelter is damaged or structural weakness is discovered, report findings to the Shelter Manager along with recommended corrective action.
- Receive, inventory, secure, and safeguard supplies and equipment.
 Issue supplies and equipment only to the shelter management staff and to leaders of Divisions/Departments/Sections.

IMMEDIATE ACTION INSTRUCTIONS FOR THE COMMUNICATIONS TEAM LEADER

1.	Recruit and assign a person or persons to monitor and operate avail- able communications equipment. This shelter is equipped with
	(radio/telephone. If radio, indicate
	where operating instructions are located).

- Pass on emergency information and instructions to the sheltered population as directed by the Shelter Manager.
- 3. Receive and dispatch messages authorized by the Shelter Manager.

IMMEDIATE ACTION INSTRUCTIONS FOR THE HEALTH AND SANITATION TEAM LEADER

1.	Obtain OCD Medical Kit(s) from the Supply and Maintenance Feam Leader. Additional medical supplies may be found at	
	if time and circum-	
	(nearest source)	
	tances permit augmenting the stored supplies.	
2.	Set up a sick bay in or other	
	(preselected area)	
	suitable area. Consolidate medical treatment and care as soon as possible. Temporary Group Leaders have been instructed to han- dle their own medical problems until a consolidated treatment area can be established.	

3. Unless existing sanitation facilities are useable and adequate to meet immediate requirements, set up OCD Sanitation Kits as prescribed in the instructions inside each kit. Prepare and disseminate sanitation rules and instructions through the Shelter Manager.

IMMEDIATE ACTION INSTRUCTIONS FOR THE RADIOLOGICAL DEFENSE TEAM LEADER

- Radiological monitors are probably assigned to this shelter. If not, refer to and follow the instructions in the Handbook for Radiological Monitors, located in the Federally supplied Shelter Radiation Kits.
- 2. If an attack has not yet taken place, or fallout has not yet arrived and more space is needed, increase the fallout protection of space adjacent to this shelter by piling earth or sand against basement windows and openings (not vents) to prevent radioactive particles from filtering into the shelter. Books or other materials may be stacked along walls and areas where more shielding (mass) is desired.
- Report radiation levels to the Shelter Manager and carry out other instructions in the Monitor's Handbook.

IMMEDIATE ACTION INSTRUCTIONS FOR TEAM LEADERS

As team leaders are selected, tear out sheets (pages 71 through 91) and give to appropriate group or team leader. Enter below the name of the person to whom each instruction sheet is given.

FIRE, SAFETY, AND SECURITY TEAM LEADER	
Temporary Group Leader No. 1	
Temporary Group Leader No. 2	
Temporary Group Leader No. 3	
Temporary Group Leader No. 4	
Temporary Group Leader No. 5	
SUPPLY AND MAINTENANCE TEAM LEADER	
COMMUNICATIONS TEAM LEADER	
FOOD AND WATER TEAM LEADER	
HEALTH AND SANITATION TEAM LEADER	
DISTRIBUTION:	
OCD Regions, Staff College	State Adj. Gen. Military Support
State and Local CD Directors	Planning Offices
Defense Coordinators of Federal Agencies	CONUS Army—Military Support Planning Officers
State CD Adult Education Coordinators	USASTRATCOM-CONUS C.D. Warning
Instructors Qualified in Fallout Shelter Analysis	Senior Military Colleges under DoD Universities Participating in CD Ex-
CE-NAVFAC Field Offices (Distric Engrs. and Public Works Offices)	t tension Program

IMMEDIATE ACTION INSTRUCTIONS FOR THE FIRE, SAFETY AND SECURITY TEAM LEADER

- 1. In the absence of law enforcement authorities, select persons to direct and control movement into the shelter through entrances shown on the shelter floor plan posted _______ Tell them to direct persons to areas away from the entrances and to tell the people that further information and instructions will be given to them later.
- Recruit assistants to help organize persons entering the shelter into temporary groups of about 200. Appoint a temporary leader for each group and issue each an INSTRUCTION SHEET NO. 3. Give a list of selected group leaders to the Shelter Manager.
- 3. Recruit law enforcement and other personnel to assist you in carrying out the following tasks:
 - a. Maintain an approximate count of persons inside the shelter. Be prepared to inform the Shelter Manager of the approximate number of persons inside the shelter at any given time as well as the number of persons outside waiting to get in.
 - b. Prevent persons from bringing pets, bulky items (blankets, pallets, etc. are permissible), and other materials into the shelter which could pose a morale or law and order problem. Doubtful cases should be referred to the Shelter Manager. Do not authorize personal search of persons entering the shelter.
 - c. When directed by the Shelter Manager, direct persons who cannot be accommodated in the shelter to other areas designated by the Shelter Manager.
 - d. Move items outside which are in the way such as crates, machinery, furniture, and so on.
 - e. Open windows, doors, vents and other openings unless an attack has taken place or you are directed otherwise by the Shelter Manager or Radiological Monitor.

- f. Locate and safeguard shelter supplies, mechanical and electrical equipment, and other facilities, which might be needed for the well being of the sheltered population.
- g. Collect and secure firearms (except those in possession of law enforcement officials), flammables, alcoholic beverages, and other items likely to cause problems.
- h. Enforce "no smoking" rules and other shelter regulations issued by the Shelter Manager.
- Fire fighting personnel should collect fire fighting equipment from other areas in the building and activate fire prevention measures.
- 5. Establish fire and security patrols on a continuous basis.
- 6. Rescue trapped and injured persons inside or near the shelter.

TEMPORARY GROUP LEADERS

You have been selected, on a temporary basis, to assist the Shelter Manager in controlling the movement of people into this shelter and in carrying out other immediate lifesaving tasks. Appoint as many assistants as necessary to help you control your group—one for every 50 persons should be adequate for a short time. A formal organization of the shelter will take place as soon as movement into the shelter is completed. You can assist the Shelter Manager by carrying out the following:

- Direct your group to the area designated by traffic control personnel.
- 2. Tell your group not to smoke until further notice.
- 3. Act as a buffer between the persons in your group and shelter management personnel. Ask your group to resolve their own problems if at all possible and to present emergency requests or reports to you, not to Shelter Manager! Tell your group that problems you cannot resolve will be passed on to the Shelter Manager as soon as possible but that his immediate and most urgent task of the moment is to get people moved into the shelter.
- 4. Recruit the best qualified person possible to serve as a medical team leader. Refer all medical problems to him. Point out to the group that this means of handling the group's medical problems is temporary. A centralized medical care and treatment system will be established in the shelter later.
- Tell your group to sit or remain in the assigned location until the Shelter Manager indicates a more liberal policy can be adopted.
- Unless the Shelter Manager has been able to orient the entire sheltered population, pass on the information and instructions given to you by the Shelter Manager in the temporary group leaders orientation.

has well-out allowing as more bloom thinks would not come

- Direct your group to the area designated by traffic control personnel.
- 2. Tell your group not to smoke until further notice.
- 3. Act as a buffer between the persons in your group and shelter management personnel. Ask your group to resolve their own problems if at all possible and to present emergency requests or reports to you, not to Shelter Manager! Tell your group that problems you cannot resolve will be passed on to the Shelter Manager as soon as possible but that his immediate and most urgent task of the moment is to get people moved into the shelter.
- 4. Recruit the best qualified person possible to serve as a medical team leader. Refer all medical problems to him. Point out to the group that this means of handling the group's medical problems is temporary. A centralized medical care and treatment system will be established in the shelter later.
- Tell your group to sit or remain in the assigned location until the Shelter Manager indicates a more liberal policy can be adopted.
- Unless the Shelter Manager has been able to orient the entire sheltered population, pass on the information and instructions given to you by the Shelter Manager in the temporary group leaders orientation.

- Direct your group to the area designated by traffic control personnel.
- 2. Tell your group not to smoke until further notice.
- 3. Act as a buffer between the persons in your group and shelter management personnel. Ask your group to resolve their own problems if at all possible and to present emergency requests or reports to you, not to Shelter Manager! Tell your group that problems you cannot resolve will be passed on to the Shelter Manager as soon as possible but that his immediate and most urgent task of the moment is to get people moved into the shelter.
- 4. Recruit the best qualified person possible to serve as a medical team leader. Refer all medical problems to him. Point out to the group that this means of handling the group's medical problems is temporary. A centralized medical care and treatment system will be established in the shelter later.
- Tell your group to sit or remain in the assigned location until the Shelter Manager indicates a more liberal policy can be adopted.
- Unless the Shelter Manager has been able to orient the entire sheltered population, pass on the information and instructions given to you by the Shelter Manager in the temporary group leaders orientation.

- Direct your group to the area designated by traffic control personnel.
- 2. Tell your group not to smoke until further notice.
- 3. Act as a buffer between the persons in your group and shelter management personnel. Ask your group to resolve their own problems if at all possible and to present emergency requests or reports to you, not to Shelter Manager! Tell your group that problems you cannot resolve will be passed on to the Shelter Manager as soon as possible but that his immediate and most urgent task of the moment is to get people moved into the shelter.
- 4. Recruit the best qualified person possible to serve as a medical team leader. Refer all medical problems to him. Point out to the group that this means of handling the group's medical problems is temporary. A centralized medical care and treatment system will be established in the shelter later.
- Tell your group to sit or remain in the assigned location until the Shelter Manager indicates a more liberal policy can be adopted.
- Unless the Shelter Manager has been able to orient the entire sheltered population, pass on the information and instructions given to you by the Shelter Manager in the temporary group leaders orientation.

- Direct your group to the area designated by traffic control personnel.
- 2. Tell your group not to smoke until further notice.
- 3. Act as a buffer between the persons in your group and shelter management personnel. Ask your group to resolve their own problems if at all possible and to present emergency requests or reports to you, not to Shelter Manager! Tell your group that problems you cannot resolve will be passed on to the Shelter Manager as soon as possible but that his immediate and most urgent task of the moment is to get people moved into the shelter.
- 4. Recruit the best qualified person possible to serve as a medical team leader. Refer all medical problems to him. Point out to the group that this means of handling the group's medical problems is temporary. A centralized medical care and treatment system will be established in the shelter later.
- Tell your group to sit or remain in the assigned location until the Shelter Manager indicates a more liberal policy can be adopted.
- Unless the Shelter Manager has been able to orient the entire sheltered population, pass on the information and instructions given to you by the Shelter Manager in the temporary group leaders orientation.

IMMEDIATE ACTION INSTRUCTIONS FOR THE SUPPLY AND MAINTENANCE TEAM LEADER

- If there are Packaged Ventilation Kits in the shelter, take the following action:
 - a. Open the kits immediately. (They should be set up and ready to operate within the first hour after the shelter is opened. Refer to instructions before setting up the kit.)
 - Locate, identify and control all components, particularly the ductwork.
 - c. Follow instructions exactly. The instructions are based on engineering requirements.
- Test operability of and, where necessary, temporarily restore or repair electrical and mechanical equipment and facilities essential to the comfort, safety, and welfare of the shelter occupants.
- 3. Location of outlets, valves, etc., are:
 - a. Fuse box(es)
 - b. Valve(s) ______(Specify—i.e., water, gas, etc.)
 - c. Water outlet(s)_____
 - d. Other ______
 - e. Emergency lights are located

(If not inside shelter, indicate nearest location)

4. Tools suitable for maintenance and rescue work are located.

(If not inside shelter, indicate nearest location)

- In case the shelter is damaged or structural weakness is discovered, report findings to the Shelter Manager along with recommended corrective action.
- Receive, inventory, secure and safeguard supplies and equipment. Issue supplies and equipment only to the shelter management staff and to leaders of Divisions/Departments/Sections.

IMMEDIATE ACTION INSTRUCTIONS FOR THE COMMUNICATIONS TEAM LEADER

1.		nd assign a person or persons to monitor and operate communications equipment. This shelter is equippe	
	with	(Radio/telephone. If radio, indicate	
			_

where operating instructions are located).

- Pass on emergency information and instructions to the sheltered population as directed by the shelter Manager.
- Receive and dispatch messages authorized by the Shelter Manager.

FOOD AND WATER TEAM LEADER

1.	Institute water conservation measures at once. Prohibit flushing of commodes or use of water from any sources.				
2.	Inventory food and water supplies. If water drums are empty				
	or the water unfit to drink, fill the drums at				
	unless the water system is not functioning or orders have been received not to use the water system.				
	Obtain water or water substitutes from				
	if the stored water supply is inadequate and the Shelter Manager permits small groups to leave the shelter for this purpose.				
3.	When directed by the Shelter Manager, issue one cup of water and				
	(number of biscuits and/or carbohydrate supplement candles) per person through Section Leaders.				
4.	Supplementary food supplies may be obtained if absolutely necessary (as determined by the Shelter Manager) from				

IMMEDIATE ACTION INSTRUCTIONS FOR THE HEALTH AND SANITATION TEAM LEADER

1 Ohtain OCD Madical Kit (a) from the Supply and Maintenan

**			al supplies may be found at	
	(Nearest source) cumstances permit augmenting the stored supplies.			
2.	Set up a sic		or other suita-	
			eatment and care as soon as	

- ble area. Consolidate medical treatment and care as soon as possible. Temporary Group Leaders have been instructed to handle their own medical problems until a consolidated treatment area can be established.
- 3. Unless existing sanitation facilities are useable and adequate to meet immediate requirements, set up OCD Sanitation Kits as prescribed in the instructions inside each kit. Prepare and disseminate sanitation rules and instructions through the Shelter Manager.

RADIOLOGICAL DEFENSE TEAM LEADER

- Radiological monitors are probably assigned to this shelter.
 If not, refer to and follow the instructions in the Handbook for
 Radiological Monitors, located in the Federally supplied
 Shelter Radiation Kits.
- 2. If an attack has not yet taken place, or fallout has not yet arrived and more space is needed, increase the fallout protection of space adjacent to this shelter by piling earth or sand against basement windows and openings (not vents) to prevent radioactive particles from filtering into the shelter. Books or other materials may be stacked along walls and areas where more shielding (mass) is desired.
- Report radiation levels to the Shelter Manager and carry out other instructions in the Monitor's Handbook.

