

Bisment

federal civil defense guide

PART C, Chapter 1
October 1970

THE NATIONAL FALLOUT SHELTER PROGRAM



DEPARTMENT OF DEFENSE
OFFICE OF CIVIL DEFENSE



THE NATIONAL FALLOUT SHELTER PROGRAM

The objective of the National Fallout Shelter Program is to provide the entire population of the United States with protection from fallout radiation that could result from nuclear attack.

Development of the nationwide public fallout shelter system, as an integral part of the total defenses of this Nation, is a most vital element of the Civil Defense Program.

Basis of the Shelter Program ¹

Intensive studies of nuclear weapons and their effects have shown that millions of Americans outside the immediate vicinity of nuclear explosions who might otherwise perish would survive such an attack if they were adequately sheltered from radioactive fallout. Radioactive fallout is debris resulting from a nuclear explosion at or near ground level, which rises to high altitudes as part of the atomic cloud, and eventually falls to earth as particles of various sizes. This lethal byproduct of a nuclear blast can be carried by the upper winds to any part of the country. Effective protection against the radiation of fallout is provided by shielding—such as that afforded by fallout shelter.

To deal with the threat of fallout radiation, a nationwide public fallout shelter program was started by the Department of Defense in 1961. Major activities in this program are to identify, license, mark with distinctive signs, and stock with essential food and other supplies suitable public fallout shelter space in existing structures, mines, caves, and tunnels throughout the United States.

The Department of Defense has conducted exhaustive studies which show that with a minimum radiation protection factor (PF) of 40 (radiation received in shelter would be only 1/40th, or 2½ percent, of that outside), more than 90 percent of the people surviving the direct effects of a nuclear attack on the United

States, and who otherwise would die from the effects of fallout radiation without shelter, could survive.²

A considerable amount of shelter space meeting OCD shelter standards is inherent in many buildings. Even so, the amount of such existing space is insufficient to fill the total needs of the Nation at this time. While there are many localities in which enough suitable shelters exist to accommodate everyone, there are many other locations where there are not enough shelters, or where they could not be reached in a reasonably short period of time.

Because of the need for additional shelters in certain locations, an objective of the National Fallout Shelter Program is the development of fallout shelter where it does not now exist, and is still needed, to provide protection for both daytime and nighttime populations.

Fallout shelter spaces identified for use should be prepared for occupancy under attack conditions—for a possible shelter staytime of up to 2 weeks.

Shelter is allocated according to population and the travel time required for people to get there. And finally, local officials and the general public must be informed of where to go and what to do during periods of extreme crisis or under attack conditions. These requirements are met through development of a Community Shelter Plan (CSP).³ Community shelter planning also includes identification of areas and amounts of shelter deficits. When the CSP has been completed, pertinent provisions are made known to local officials and the general public.

Briefly then, the National Fallout Shelter Program consists of four major activities:

1. Identification, through survey, of shelter in existing structures.
2. Development of a Community Shelter Plan (CSP) for the use of shelters and the best-protected space currently available in case of nuclear attack on the United States. Also, the planning identifies the unfilled requirement for shelter.

¹ For additional background information, see FCDG, pt. A, ch. 1, "Basis of the Civil Defense Program;" and ch. 2, "National Civil Defense Program."

² See FCDG, pt. A, ch. 1, app. 1, "Policy on the National Goal for a Minimum Protection Factor of 40 for Public Fallout Shelters."

³ See FCDG, pt. D, ch. 3, "Community Shelter Planning," and appendixes.

3. Preparation of public shelter for occupancy (licensing, marking, and stocking).
4. Development of required additional shelter to meet the present and long-range needs of local populations.

The major activities listed need not necessarily be accomplished in the above sequence. Evaluation of the local situation will show the sequence of need. In many instances, the activities might be carried on simultaneously in varying degree. Until such time as the application of all of these activities can provide adequate fallout shelter to protect the total population in any given community, plans should be made for use of all best-protected space currently available. This will, as necessary, include spaces with PF of less than 40. Further, emergency public information materials should be developed to help residents plan for emergencies—including how to improvise last-minute shelter in their homes, if necessary, in time of crisis.

Commanders of military installations implement the National Fallout Shelter Program in much the same way as local civil defense directors. However, minor deviations are based on the individual military Service requirements. Policy and specific instructions of each Service are set forth in appropriate Service regulations.

Identification of Existing Shelter

Principle means used by the Office of Civil Defense in identifying or locating existing fallout shelter space are the:

1. National Fallout Shelter Survey (NFSS).
2. Home Fallout Protection Survey (HFPS).

The NFSS is conducted under the direction of OCD by the U.S. Army Corps of Engineers (CE) and the U.S. Naval Facilities Engineering Command (NAVFAC), through their field offices. The HFPS is conducted under OCD direction by the Bureau of the Census (U.S. Department of Commerce).⁴

⁴ For more detailed information on the NFSS and HFPS, see Chapter 2 to FCDG Part C—"Identification (Survey) of Fallout Shelter in Existing Buildings."

⁵ See FCDG, pt. D, ch. 3, "Community Shelter Planning," and appendixes.

⁶ For more detailed information, see Chapter 3 to FCDG Part C—"Developing New Shelter Space."

The NFSS is concerned primarily with the location of shelters containing 50 or more shelter spaces (one occupant per space), which meet minimum OCD shelter standards for radiation shielding (PF 40) and habitability. In addition, the survey identifies shelter space of less than minimum shelter standards (i.e., less than 50 spaces, and less than PF 40), where needed. Shelter located by the NFSS is intended for public use. The HFPS determines fallout protection available in one-, two-, and three-family houses with basements—protection which could be used by the occupants. The sum total of the space located by these surveys is used in developing the local Community Shelter Plan.⁵

Developing Shelter Space⁶

To promote the development of fallout shelter space necessary to supplement existing shelter, OCD provides an advisory service to inform Architects and Engineers (A&E's) of design techniques that can be used to create fallout shelter in new construction at little or no cost to the building owner. In addition, other approaches intended to stimulate creation of needed shelter are:

1. Use of a Direct Mail Shelter Development System (DMSDS), in conjunction with an A&E advisory service. (See pt. C, ch. 3.) (Periodic commercial reports that tell of proposed construction projects are reviewed; and for the individual projects, OCD provides information as requested on design techniques to the architects and building owners.)
2. Issuance of Packaged Ventilation Kits (PVK's) to localities to increase the capacity of existing belowground shelters by improving the ventilation. (Prototype procurement of PVK's has been issued to shelters. Research and development is being applied to PVK's and other ventilation devices.)

Preparation of Shelter for Occupancy

Certain actions are necessary to prepare shelter for occupancy in an emergency. These actions are licensing, marking, and stocking, as described below:

Licensing.⁷—A fallout shelter license or privilege form is executed by the building owner and the responsible local government official. Basically, the license provides for the following:

(1) Use of the facility as a fallout shelter by the public in an emergency, (2) posting of fallout shelter signs, (3) storage of shelter supplies, and (4) right of periodic inspection by government officials.

Marking.⁷—OCD furnishes the official black and yellow public fallout shelter signs to local government through CE/NAVFAC for posting facilities located by the NFSS, which meet OCD shelter standards. Although it is preferable that every facility be licensed, this is not a prerequisite to posting. However, permission to mark must be obtained from building owner. Signs are furnished dependent upon their intended use, either on the outside of the facility (for public identification and awareness by the public), or inside the facility (to show direction to and location of the shelter area).

During periods of increased international tension, localities may implement planned emergency measures for marking shelter. Facilities not meeting OCD shelter standards may be marked with adhesive fallout shelter signs during a declared emergency.

Stocking.⁷—OCD provides austere survival supplies to local governments for placement in each shelter licensed for public use. The supplies are intended for an in-shelter stay by occupants of up to 14 days. The items available are water drums and liners, a basic food ration, medical and sanitation kits, and radiological monitoring kits. At one time, as part of the NFSS, kinds and amounts of certain items that might reasonably be expected to be on hand in a facility at any given time, and which could substitute for OCD shelter supplies, were identified. The responsibility for this activity now rests with local governments. In addition, local governments are encouraged to make maximum substitution where analysis of local water and

sanitation systems indicate continued operability under attack conditions.

Community Shelter Planning⁸

The Community Shelter Plan (CSP) is an important principle of local emergency readiness. The purpose of community shelter planning is to develop practical procedures in each jurisdiction to make efficient use of the best-protected space for fallout protection in the event of attack, inform each citizen, and prepare each department of local government to support the plan and meet its expanded responsibilities in time of disaster.

Community shelter planning involves the following: (1) Allocates the local population to the public shelter and best-protected space currently available, (2) provides a basis for informing the public of the shelter available, and recommends emergency actions to be taken, (3) identifies requirements for development of additional shelter, (4) prescribes local procedures for development of additional shelter required, and (5) provides for a directive for the updating of the local civil defense emergency plan. With completion of steps 1 through 5, local officials consider official adoption or approval of the Community Shelter Plan. Upon approval, information about the Plan is disseminated to local officials concerned, and to the general public.

Recommended State and Local Action

- State and local governments should do everything possible toward fulfilling the objective of providing fallout shelter for everyone.
- Cooperation should be extended to CE and NAVFAC personnel in the continuing activity of locating and identifying shelter.
- Architects and engineers, builders, and building owners should be made aware of the need to include fallout shelter in new construction.
- State and local CD should see to it that all eligible facilities are licensed, marked, and stocked; and that Community Shelter Plans are developed for most effective use of shelter, and best-protected space currently available.

⁷ For more detailed information, see Chapter 4 to FCDG Part C—“Licensing, Marking, and Stocking of Public Fallout Shelters.”

⁸ See FCDG, pt. D, ch. 3, “Community Shelter Planning.”