DOCUMENT RESUME

ED 350 703 EA 024 398

TITLE	State of Maryland Emergency Preparedness Planning Guide for Maryland Schools.
INSTITUTION	Maryland Emergency Management Agency, Pikesville, MD.; Maryland State Dept. of Education, Baltimore. Office of Communications and Special Projects.
PUB DATE	Jan 91
NOTE	66p.
PUB TYPE	Guides - Non-Classroom Use (055)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Administrator Guides; Elementary Secondary Education; *Emergency Programs; Guidelines; *Natural Disasters; *School Districts; *School Safety; State Action; *Statewide Planning
IDENTIFIERS	*Maryland

ABSTRACT

Guidelines to help local school systems in Maryland develop a comprehensive emergency plan and to increase student awareness are offered in this handbook. Following the introduction, chapter 1 outlines the roles of all participants in emergency planning and response. Chapter 2 describes the process for preparing an emergency plan, including recommendations for criteria, format, and planning elements. Guidelines for dealing with specific hazards are outlined in chapter 3, including a variety of natural disasters, injury and illness, civil disturbances, and nuclear emergency. The fourth chapter describes emergency preparedness education for different grades and how to coordinate a practice disaster day. A list of resources is included in the final section. (LMI)

MARYLAND EMERGENCY MANAGEMENT AGENCY

MARYLAND STATE DEPARTMENT OF EDUCATION

STATE OF MARYLAND

EMERGENCY PREPAREDNESS

PLANNING GUIDE

FOR

MARYLAND SCHOOLS

"EMERGENCY MANAGEMENT WITH EXCELLENCE"

STATE OF MARYLAND

EMERGENCY PREPAREDNESS PLANNING GUIDE

FOR MARYLAND SCHOOLS

prepared by

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in cooperation with

The Maryland State Department of Education
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200 West Baltimore Street
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January 1991

STATE OF MARYLAND
OFFICE OF THE GOVERNOR

WILLIAM DONALD SCHAEFER
GOVERNOR

To School Administrators, Principals and Teachers:

The safety and security of our young citizens is of paramount importance to all of us; not only are they dear to us, they represent our investment in the future.

The Emergency Preparedness Planning Guide for Maryland Schools is a joint endeavor of the State Department of Education and the Maryland Emergency Management Agency. The publication of this guide is an example of the fine achievements which can be realized through cooperation among individual State Government agencies.

No one is immune from natural and technological hazards. It is my sincere wish that school officials use this Guide to prepare their own plans to ensure the safety of our young citizens while they are under school supervision. I trust that this Guide will provide the assistance you require to prepare emergency plans which will assure the security of Maryland's young students.

Sincerely,

William Donald Schaefer

Governor

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ACKNOWLEDGEMENTS

This guide was prepared by Lynn Shreffler, Assistant Director for Plans, Maryland Emergency Management Agency, in cooperation with Narindar U. Kelly, Administrator, Special Projects, Office of Communications and Special Projects, Maryland State Department of Education.

Sincere appreciation is extended to the following who also contributed in a variety of ways to the development and production of this guide:

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Judith Sachwald, Executive Assistant, Programs

MILITARY DEPARTMENT
Major General James Fretterd, Adjutant General of Maryland

MARYLAND EMERGENCY MANAGEMENT AGENCY:
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MARYLAND STATE DEPARTMENT OF EDUCATION:
Joseph L. Shilling, State Superintendent of Schools
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Margaret R. Donley, Specialist in Publications

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INTRODUCTION

Physical protection for every student is a heavy responsibility that rests upon officials involved in administering educational programs. Not only should they be concerned with school safety as it relates to the traditional school environment, but they should also take every reasonable precaution to protect students from possible disaster.

Hurricanes, tornadoes, earthquakes, floods, blizzards, fires, and explosions are all threats to be reckoned with throughout Maryland. Preparedness for such emergencies starts with emergency planning.

Emergency planning must focus on all personnel and students if we are to elevate our level of preparedness in the school systems. Personnel and students in every school in Maryland must be aware of the dangers which threaten their lives and safety and be prepared to take appropriate action in the event of an imminent or actual disaster. School personnel should also be aware of their role in responding to a local emergency or disaster that does not directly affect school facilities or population.

This guide has been prepared by the Maryland Emergency Management Agency (MEMA) in cooperation with the Maryland State Department of Education to help each local school system and individual school develop a comprehensive emergency plan and increase the disaster awareness level of the student population.

The guide is based on Federal Emergency Management Agency (FEMA) and other national and neighboring state emergency preparedness literature and is primarily directed to private and public schools in Maryland. It may be adapted for use by public libraries and other public facilities.

This guide cannot cover all aspects of emergency preparedness but will provide a general understanding of activities that should be undertaken. Communities, school administrators, teachers, and local boards of education should exert every possible effort to ensure the protection and safety of everyone associated with schools and cooperate with the local emergency management agency in integrating the school system's facilities and capabilities into the community's overall emergency preparedness program.

CHAPTER 1

EMERGENCY PLANNING AND RESPONSE

Although this handbook is written primarily for local school administrators, the intent is not to place all emergency planning activity solely on their shoulders. Effective planning and response require coordination, cooperation and participation of school personnel, students, parents and other citizens of the community. The delegation of responsibility to one person, therefore, is not appropriate.

Local school superintendents and their immediate staff are in a pivotal position to ensure the success of emergency planning. This guide covers only those external emergencies under the jurisdiction of the Adjutant General of Maryland and is not meant to be intrusive on local school system authority and control. Superintendents have the needed liaison with community leaders to include the city-county emergency management agency. They also have command of school program development for both students and staff. Considering these factors, this is the ideal position from which to assign responsibilities, organize the planning process, and coordinate the effort.

Superintendents can ensure that individual school plans are consistent with state and local objectives while being realistic in terms of locations, facilities, budgets and staff capabilities.

To assist school superintendents, this chapter contains a listing of the known authorities of the local boards of education and State Board of Education pertinent to emergency preparedness. A suggested assignment of responsibilities to the various participants of the individual school emergency program is also included.

Once all schools have a comprehensive plan, it is the responsibility of the superintendent to ensure that plans are kept current with growing school populations, changes in physical plant, technical advances, and changes in state and local education policies. Because emergencies and disasters are not frequent occurrences, and the normal business of everyday life is so time-consuming, there is a general tendency to give emergency plan maintenance low priority. Yet, it is this tendency which leads to the classic "if only ..." line which too often follows an emergency.

THE STATE BOARD OF EDUCATION has the authority to:

1. devise, develop and adopt policies, regulations and procedures for emergency planning for schools.

2. recommend legislative proposals for school disaster preparation.

3. authorize the State Superintendent to implement all policies concerning school disaster planning preparedness programs.

4. approve the allocation of state funds for school disaster preparedness programs, instructional material, supplies, and services.

5. engage in or make provisions for research into the best methods of emergency preparedness instruction.

6. encourage inclusion of shelter areas in projected building construction plans.

7. encourage incorporation of units of emergency preparedness instruction in all schools.

8. require that all children have the benefits of emergency preparedness training.

THE STATE SUPERINTENDENT OF SCHOOLS has the authority to:

1. recommend to local school superintendents and local boards of education the implementation of disaster preparedness planning and education programs as recommended by the State Board of Education.

2. make recommendations to the State Board on matters affecting disaster preparedness.

3. provide technical and consultant assistance to school systems in disaster preparedness planning and curriculum development.

4. organize and coordinate all special committees and task forces concerned with disaster preparedness programs.

5. initiate requests for state funds for school disaster preparedness programs.

6. develop and implement uniform disaster preparedness policies to carry out the mandates of the State Board of Education requiring every school to have a written disaster plan.

7. coordinate with state emergency management officials and other agencies involved in the state emergency operations plan.

THE LOCAL BOARD OF EDUCATION has the authority to:

1. obtain legal advice concerning the status of school personnel and property in time of emergency and during drills and exercises.

2. coordinate with other agencies in developing general standards for local school system emergency plans.

3. establish a school emergency plan review board to approve and coordinate all school disaster plans. The review board should include:

   a. a school system emergency coordinator;

   b. the local emergency management agency director/ coordinator;

   c. individual school representatives;

   d. parents, students, teachers, and association representatives.

4. require that all children participate in emergency preparedness training adapted to individual capabilities and limitations.

5. request funds for school emergency preparedness programs.

6. review school construction and renovation projects for safety and shelter features and request funds for inclusion and/or improvements of these features.

7. develop written policies for the system regarding:

   a. emergency preparedness education and training;

   b. procurement, selection, and use of emergency program instruction materials;

   c. cooperation with MEMA for community use of school plant, grounds, and transportation during emergency/disaster situations.

THE LOCAL SCHOOL SYSTEM SUPERINTENDENT has the authority to:

1. recommend proposals and policies for school emergency preparedness programs to the local board of education.

2. appoint a system emergency coordinator and alternate to assist in planning.

3. consult with the local city/county emergency management coordinator/director and other appropriate agencies to analyze system needs in regard to disaster preparedness and planning and education, and to ensure coordination of the school plan with the community disaster plan.

4. develop and coordinate inservice emergency response education for all school personnel.

5. initiate needed emergency preparedness curriculum development and implementation.

6. implement change in disaster plans based on evaluations.

7. investigate feasibility of shelter construction in planned and existing buildings.

8. obtain resolutions from the school board giving needed authority and support to develop school emergency preparedness program and disaster plans.

9. initiate, administer, and evaluate emergency preparedness programs to ensure the coordinated response of all schools within the system.

10. be informed of neighboring school system emergency preparedness and response policies and make mutual aid arrangements.

THE PRINCIPAL should:

1. act as school emergency coordinator within the school.

2. provide leadership for development of the school emergency plan and emergency preparedness education program.

3. assign to selected staff members the responsibility for developing the school emergency plan.

4. see that the plan is coordinated with the community's emergency program and is in harmony with the school system's plans and policies.

5. assign school emergency responsibilities to staff as required and with regard to individual capacities and normal service functions.

6. secure necessary inservice training for faculty and staff.

7. encourage incorporation of emergency preparedness material into the regular curriculum.

8. conduct drills and initiate needed plan revisions based on drill evaluations. Coordinate such drills with the city/county emergency management agency.

9. arrange for procurement, storage, and maintenance of emergency supplies and equipment.

10. arrange for installment of emergency warning system.

11. keep parents informed of emergency plans and revisions.

12. supervise periodic safety checks of school facilities and transport vehicles.

13. provide copies of the school plan to the school superintendent and the local emergency management agency office.

14. determine the adequacy of shelter space for students and staff.

15. keep the school system superintendent and board informed of specific needs in regard to shelter, supplies, and instructional materials.

16. identify and report any safety/shelter deficiencies in the school facility.

THE TEACHING STAFF should:

1. participate in developing the school emergency plan.

2. participate in emergency preparedness inservice training programs.

3. be familiar with minimum first aid procedures.

4. provide instruction and practice in emergency preparedness and survival techniques appropriate to grade level in daily learning activity.

5. help students develop confidence in their abilities to care for themselves and be of help to others.

6. be prepared to provide leadership and activities for students during a period of enforced confinement due to an emergency.

7. participate in faculty studies leading to adoption or revision of the emergency preparedness program to meet the need for emergency awareness education.

8. be familiar with the psychological basis for working with children under the stress of an emergency situation.

THE NURSING STAFF should:

1. participate in the development and implementation of the school emergency plan.

2. render first aid; identify and tag young children, unconscious persons, and others as necessary, and prepare patients for transportation to hospitals.

3. arrange for training first aid teams and stretcher bearers.

4. participate as health resource persons in faculty studies leading to emergency preparedness curriculum development.

5. advise students and teachers of emergency health and sanitation measures in cooperation with the local health department and emergency management agency office.

6. assist the principal in determining the need for emergency supplies and equipment.

7. coordinate school health service plans with those of the community.

8. advise emergency planners of the need to provide for physically and mentally handicapped persons during emergencies.

FACILITY PLANNING, CONSTRUCTION AND MAINTENANCE PERSONNEL should:

1. report any structural defects.

2. identify shutoff valves and switches for gas, oil, water, and electricity and post charts so that other personnel may use them in an emergency.

3. provide a cutoff for steam lines in shelter areas.

4. provide for emergency operation of ventilation systems.

5. post locations of all protective equipment.

6. instruct all school staff in use of fire extinguishers.

7. maintain an inventory of tools and equipment.

8. advise the school emergency planning committee of hazardous and protective areas of school facilities, available emergency equipment, and alternate power sources.

TRANSPORTATION PERSONNEL should:

1. instruct children in emergency bus evacuation procedures.

2. be prepared to render first aid.

3. inform school administrators of changing route conditions, road construction projects, etc., that may be potentially hazardous or alter emergency transportation plans.

4. know alternate routes by which students could reach home, shelter, or evacuation assembly points.

5. keep emergency equipment and telephone numbers in the bus.

6. carry out applicable transportation policies of the state and local boards of education.

7. be aware of emergency shelter facilities along routes and within local areas.

8. keep vehicles serviced and ready to transport evacuees (students or others) when an emergency situation is anticipated or has occurred.

FOOD SERVICE PERSONNEL should:

1. whenever possible, try to maintain adequate supplies of food and water for emergency use.

2. rotate supplies to ensure freshness.

3. train in mass feeding practices under emergency conditions in accordance with school emergency shelter policy.

4. practice kitchen safety laws, rules, and regulations at all times.

THE ADMINISTRATIVE STAFF should:

1. assist in development of emergency plans.

2. develop competency to carry out assigned emergency preparedness and response functions through participation in inservice training, school drills, and exercises.

THE MEDIA CENTER STAFF should:

1. make available for use printed and non-printed emergency preparedness instructional materials and resources selected and acquired according to school board policy.

2. research, evaluate, and recommend teaching aids and literature relative to goals of the school emergency preparedness program.

THE SCHOOL RESOURCE STAFF should:

1. provide administrative and instructional support for an efficient emergency preparedness program.

PARENTS should:

1. encourage emergency preparedness programs within the schools.

2. volunteer services in school emergency planning and during actual emergencies.

3. provide input through organizations associated with the school.

4. provide schools with requested information concerning their children for emergency situations, early and late dismissal, etc.

5. become knowledgeable of community emergency plans and encourage coordination between local officials, businesses, and schools to maximize efforts in preparedness and response.

6. encourage students to discuss with their parents the emergency preparedness and response techniques learned at school.

7. practice emergency preparedness in the home to reinforce school training, provide models, and ensure family safety.

ALL STUDENTS should:

1. cooperate during emergency drills and exercises.

2. learn to be responsible for themselves and others.

3. develop awareness of natural and man-made hazards.

OLDER STUDENTS should:

1. work through student body organizations, clubs, and associations to support the school emergency program. With the approval of the principal this might include:

   a. staging emergency awareness plays;

   b. taking group instruction in first aid;

   c. visiting emergency services facilities.

2. take an active role in school emergency response and be assigned a variety of tasks when properly trained. These might include:

   a. caring for younger children;

   b. assisting handicapped classmates;

   c. acting as messengers, guides, monitors and patrols;

   d. providing first aid assistance;

   e. performing clerical duties;

   f. operating amateur radios, school switchboards, or other communications equipment.

COMMUNITY:

1. The community is a valuable resource for:
   a. warning,
   b. assistance,
   c. consultation,
   d. information,
   e. coordination,
   f. educational materials,
   g. speakers, and
   h. other related activities.
2. These types of assistance may come from:
   a. individuals,
   b. government,
   c. city/county emergency management agency,
   d. churches,
   e. clubs and organizations,
   f. emergency medical services,
   g. other educational facilities/libraries,
   h. law enforcement,
   i. fire department,
   j. businesses,
   k. hospitals,
   l. American Red Cross, and
   m. Salvation Army.

CHAPTER 2

PREPARING THE EMERGENCY PLAN

School personnel have an obligation to students regardless of the circumstances. In developing the disaster plan, legal responsibilities should be defined, authority for the plan and its implementation established, and the circumstances identified during which emergency procedures must be taken. It entails an awareness of the natural and man-caused hazards likely to occur in a particular area and requires a thoughtful assessment of facilities and available resources--both material and human. A plan reflecting these considerations will be far more workable than one borrowed wholesale from another school.

The ideal disaster plan consists of several elements, supported by information derived from a variety of sources. The following topics are provided as suggestions for planning and assembling reference materials useful in tailoring plans to fit particular needs. The plan must be specific enough to give directions for immediate action, but flexible enough to allow for adjustments and change as unexpected situations develop. The planners should strive for simplicity and clarity.

PLAN CRITERIA AND FORMAT

1. A number of school plans and state guides were reviewed as this guidebook was being written. There were as many variations in style as there were plans, and all seemed to serve their purpose well. The plans did, however, have a number of criteria in common that should be considered. These were:

   a. a brief description of the school's position on emergency preparedness.

   b. a full description of the community alert procedures for an actual or impending disaster/emergency.

   c. a description of how the school population was to be informed of the actual or impending danger.

   d. a list of emergency telephone numbers, including administrative chain-of-command and emergency services.

   e. an identification of shelter areas or best protective areas.

   f. an identification of evacuation assembly areas outside of buildings.

   g. a description of organization and action of the school population patrons in

evacuation and movement to shelters.

h. a listing of responsibilities and assignment of personnel for each anticipated emergency situation.

i. step-by-step description of warning, preparation and response for specific anticipated emergency situations.

j. a description of education, training and drills required of school population to ensure effective operation of plan

k. provisions for periodic review and revision.

l. a formal approval by the board of education.

The following hints may be useful:

a. Provide spaces for phone numbers of key responding personnel and alternates. List first by job title, then by name.

b. Step-by-step procedures should be as simple as possible, and clear to someone unfamiliar with the plan.

c. Whenever possible, save time and confusion by assigning a standard procedure to a particular response. (Example: The fire evacuation policy may be applicable to most situations requiring the evacuation of facilities.)

PLANNING ELEMENTS

Authority

The authority under which the plan is developed should be identified.

Organization

Once authority has been established for planning, the local school board should appoint a school emergency plan review board to function as the agent of the school superintendent's office. The superintendent may wish to appoint an emergency coordinator and assign this person to assist schools in developing disaster plans and working directly with the review board. Part of the emergency coordinator's duties would be to secure the counsel and assistance of the local emergency management agency director and other appropriate agencies to develop an information base for the school system that will ensure coordination between school and community disaster plans.

At the individual school level, each principal should select a limited number of staff members to participate in the development or revision of the school emergency plan. It is suggested that the principal, or the person designated to act in his/her absence, act as chairperson and emergency coordinator of the emergency response planning committee.

Assembling Planning Information

The following paragraphs present several sources of planning information. This list of sources is not intended to be exhaustive, so planners should look for additional sources in their communities and schools.

a. Hazard Analysis

As stated briefly in the introduction, the hazard analysis will generate the basis upon which the emergency preparedness plan will be developed. The first step in this analysis is to perform a hazard assessment, which merely means to determine which natural and man-caused hazards threaten the school. Begin with a building and site assessment. Examine the grounds with any previous use of the property in mind. Look for old foundations, for slopes or embankments that could cave-in or slide. Evaluate the neighboring areas looking for vegetation, buildings, or activities that are potentially hazardous. The city/county emergency management coordinator should be able to assist with the hazard assessment. The local emergency planning committee (LEPC), an entity required under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), can provide information on hazardous materials threats in the area. The local emergency management coordinator can assist with contacting the LEPC. The National Weather Service station in the area will provide climatic data on the general and unique weather patterns the community experiences.

Another good idea is to initiate research into the history of natural and man-caused hazards in the area. Local historical clubs, emergency services agencies, libraries, and newspaper files are all good sources of information. Do not overlook the elderly in the community who can provide the oral history of past events. Research projects can involve students with the disaster preparedness program, and their efforts can provide valuable input to the hazard assessment.

Once the hazard assessment has been completed, planners should initiate a vulnerability assessment, which is the process by which planners determine the vulnerability of people, property, and the environment to the various hazards. The local emergency management coordinator can assist with this, but common sense will suffice in most situations.

The last step in the hazard analysis is the risk assessment. Once planners determine that the community is vulnerable to a hazard, it can assess the risk involved, which means it attempts through measurements and/or judgment to assign a probability that the hazard will occur and to what severity. This step is helpful in assigning priorities to the list of hazards so the preparedness program allocates resources to those hazards that pose the highest risks.

b. Maps and Floor Plans

Maps of the community are excellent references that provide easy-to-read summaries of the natural and man-made features of the area. Topographic maps and street maps can be used to assess the vulnerability of the school to floods, landslides, forest fires, and transportation accidents involving hazardous materials.

Floor plans or blueprints of the school facilities offer planners a "summary" of building features so that shelter areas can be identified and evacuation routes can be planned to avoid hazardous areas (boiler rooms, wooden stair wells, etc.) and take advantage of building safety features (fire walls, etc.).

c. Organizational Charts

Organizational charts are valuable during planning activities or actual emergencies. Charts designed to outline responsibilities associated with job titles and show names, addresses, and phone numbers of key personnel provide an excellent reference source. During actual emergencies, organizational charts prominently displayed on an office wall provide phone numbers at a glance. This is especially helpful when someone unfamiliar with the school emergency plan needs to summon help.

d. Property Inventories

Maryland schools are required to maintain an inventory of all school equipment and accountable supplies. Planners will find this helpful in determining what is available for emergency use. In addition, an evaluation of the inventory may reveal equipment that must be considered a hazard.

e. Community Resources

Each school is encouraged to have a written plan for the organized use of community resources. As a minimum, planners should identify community facilities that could be used for temporary shelter for students or for classrooms should the school be rendered unusable for any reason. Do not overlook the numerous human resources available in the community. Emergency management officials, fire fighters, and law enforcement officials are normally willing to assist with emergency response planning. In addition, they are often able to speak to student groups, conduct training workshops for school staff members, and give instruction to adults enrolled in continuing education classes.

f. Call Up Lists

A current list of names, addresses, and phone numbers for staff and emergency services personnel should be developed and maintained. Provide a pocket card with this information to each school staff member as a quick reference tool.

Warning and Communications

It is imperative that school personnel know the exact means by which warning is to be transmitted, received, and disseminated. The school emergency coordinator should consult the local emergency management agency director and other appropriate emergency service agencies to determine the method by which emergency warning is given.

Each school should test the effectiveness of existing equipment and consider obtaining emergency communications equipment if necessary. For example, if the only means of communication is a telephone, staff should be aware that demand for lines is great during an emergency.

Each school should have an alternate warning system which will, in the event of a power failure, alert the entire complex--inside, outside, unconnected buildings, and play areas.

Each school should be equipped with a battery operated radio to receive information from the Emergency Broadcast System.

Notification of Parents

Every school should have a method by which parents and the public can be notified of school emergency situations. Arrangements with local radio and television stations to broadcast emergency bulletins should be established.

At the beginning of each school year, parents should complete a questionnaire to advise the school administration whether children are to be sent to their homes, to neighbors, or maintained in the custody of the school in the event of a disaster. The questionnaire should include parents' home and business phone numbers and the name and phone number of each child's doctor (or hospital, clinic, etc.) of parents' preference.

Every parent should be provided a copy of the school's emergency policy, including a list of stations to monitor should school action be anticipated, and a statement that under extraordinary circumstances when parents cannot be notified, the administration will act at its own discretion.

Transportation

a. Because emergency procedures often require transportation at irregular hours, a list should be kept of:

   (1) the number and capacity of system-owned and/or contract buses available for an immediate or delayed response to an emergency call.

   (2) the number and capacity of private cars that could be made available if there is a shortage of buses.

   (3) all bus drivers and alternates, means of contacting, and those who could be expected to respond to an emergency call.

   (4) the total number of students (and staff) that travel each normal route.

b. Other essential elements that must be considered are:

   (1) predetermination of alternate routes.

   (2) location and capacity of emergency shelters along routes, alternates, or within areas.

   (3) alternate or optional stops to speed the time buses could cover the normal routes.

   (4) provision of emergency transportation to students who normally walk.

   (5) the time required to complete transportation operations under normal conditions.

Staff Training and Education

Training and education are essential to an effective response in time of emergency. Pre-emergency training for each person with an emergency duty should be required and supplied by the school. Instruction should be given as part of a continuous training program. Training should alert all staff members to the relevant hazards and provide them with measures to protect life and property. Training should also include the meanings of warnings and public information announcements.

Exercises, drills, and tests are vital parts of such training and should be utilized once the staff has been educated as to the purpose of the events and their respective roles. This basic training will serve both the individual and the school population and may readily be accomplished through brief workshops and in-service training periods.

Community Catastrophe and the School as Emergency Shelter

Accidents, fires, explosions, or industrial chemical spills occurring off school property may indirectly affect or become a threat to students, staff, or school buildings. They may also disrupt transportation routes, communications systems, or destroy residential areas served by the school. Many of the school policies related to evacuation, transportation, early or late dismissal may be appropriate to implement in response to such an outside disaster.

Local government emergency service authorities will generally provide emergency guidance to school authorities. Only in extreme circumstances where the school becomes isolated by a total transportation and communications breakdown will the principal be solely responsible for emergency action. In these circumstances the principal must exercise his/her best judgment until communications can be restored.

During an emergency or disaster, temporary shelter may be needed by citizens evacuated or left homeless. Most school facilities are adaptable to accommodating groups of people in these circumstances; classrooms, cafeterias and gymnasiums provide shelter space; kitchens are already set up for mass feeding; and school vehicles may provide transportation for victims and emergency supplies.

Each school should maintain an inventory of available space and an assessment of the capacity of the facilities to accommodate disaster victims. This inventory should be provided to local governing officials or the emergency management agency director.

Designation of emergency shelter facilities should be made by school officials in coordination with local officials, emergency management agency office, and private relief organizations, e.g., American Red Cross, Salvation Army.

CHAPTER 3

PLANNING GUIDELINES FOR SPECIFIC HAZARDS

INJURY AND ILLNESS

Injury and illness are the most common of all school emergencies. Every school shall be prepared to provide basic first aid, while summoning necessary emergency assistance.

Preparation

a. Establish and maintain a current list of emergency medical service telephone numbers.

b. Establish and maintain a current list of staff and students qualified to administer first aid and where they are likely to be found during the school day.

c. Establish and maintain a list of students with known medical problems and parental instructions for emergency actions.

d. Establish a general file of students' home telephone numbers, parents' business telephone numbers, names and number of other individuals authorized by the parents to make decisions regarding emergency treatment, family physician, choice of clinic or hospital.

e. Establish a general file of emergency telephone numbers for all school personnel.

f. Request from the school board legal counsel a statement of legal responsibilities and liabilities, including insurance restrictions. This information should be provided to the school principal/administration at the beginning of each school year.

g. Notify parents of school policy and actions that will be taken when parents cannot be reached.

h. Encourage faculty and students to take first aid training.

i. Develop a school policy to cover epidemics, such as influenza.

Response

a. Non-Critical

(1) Administer first aid.

(2) Notify parents, if possible, and request that they provide transportation for student to home or doctor's office.

(3) If parents cannot be contacted or if transportation cannot be provided, take action

in accordance with predetermined school policy.

b. Critical

(1) Administer first aid to extent possible.

(2) Take action in accordance with parents' wishes by:

(a) contacting student's doctor.

(b) transporting student to doctor's office or hospital by staff or school vehicle/ambulance.

(3) If parent cannot be contacted immediately, take action in accordance with predetermined school policy. Continue attempts to contact parent and keep a record of procedure, times, etc.

(4) Notify the superintendent's office.

(5) Appropriate injury, illness, or insurance report forms should be filled out promptly.

FIRE

Fire is an ever present danger. It may originate within the building or threaten from the outside. A small fire in a rural wooded area or built up urban area can quickly get out of control and jeopardize the safety of a nearby school. Internal fires may result from a variety of causes, ranging from carelessness to arson. Schools should have a fire emergency procedure to respond to both internal and external threats.

Warning

a. Every school is required by Maryland state law to have a supervised, manually operated alarm system. The sound of the alarm signal should be distinct from any other warning signals used within the school.

b. In case of malfunction, an alternate signal should be available (cowbell, whistle, bullhorn, etc.).

Preparation

a. Equipment

(1) All personnel and students should be familiar with the location and operation of alarms and fire extinguishers.

(2) All equipment (including extinguishers, sprinkler systems, fire doors, etc.) should be maintained in accordance with state and local ordinances.

b. Evacuation Plans

(1) Plans should be designed to evacuate the entire school complex as quickly and as safely as possible.

(2) Best exits, evacuation routes, and alternatives should be identified and designated on a master floor plan.

(3) Evacuation routes should:

(a) take advantage of natural protective features (fire walls, etc.).

(b) avoid hazardous areas such as wooden stairs, open stairwells, boiler rooms.

(c) be designed so there is no cross traffic.

(4) Plans should identify and designate assembly points at least 500 feet from buildings.

(5) Plans should include instructions for evacuating crowds attending school functions or community social functions during or after regular school hours.

(6) Whenever possible, younger or handicapped children should be assigned to rooms on ground floors and closest to exits or to rooms that open directly to the outside.

(7) Plans should include a list of each person's role in evacuating the building--designating who should check restrooms, vacant classrooms, locker rooms, storage areas, and other space that may be occupied by students, visitors, or school personnel.

(8) Plans should include provisions for resumption of classes in other school system facilities (double sessions) or suitable buildings until the damaged facilities are repaired.

c. Evacuation instructions should:

(1) be given to students on the first day of school.

(2) be given to all personnel at time of employment.

(3) be posted using fire exit diagrams.

(4) be provided to all substitute teachers in a desk copy of emergency instructions.

(5) designate student and staff responsibilities for:

(a) closing windows and doors when leaving rooms.

(b) checking adjacent restrooms, vacant rooms, storage areas, etc.

(c) leading lines of march.

(d) assisting handicapped students.

(e) guarding exits to prevent unauthorized persons from entry into buildings.

d. General Procedures

(1) Each school should devise a method to safeguard records.

(2) Provisions should be made for shutting down utilities.

(3) Because prevention is as much a part of planning as the response elements, plans should include provisions for careful and frequent safety checks of grounds and transport vehicles.

Response

a. When fire is discovered, an alarm should be sounded and fire authorities notified without delay.

b. Evacuate buildings immediately, using predesignated routes and exits.

c. Evacuation should be conducted:

(1) in orderly lines-with no running.

(2) quietly with no talking to minimize confusion and allow for changes of orders to be heard.

d. Pre-established standard evacuation procedures should be followed.

(1) Students should leave the room in single file one row at a time.

(2) Student monitors, teachers, or library personnel should close windows, time permitting.

(3) A predesignated person should check restrooms, vacant rooms adjacent to

classrooms, and library rooms.

(4) No one is to stop to pick up personal belongings; the teacher should take roll book only.

(5) After the last person leaves the room, the teacher or librarian should close the door to prevent fire drafts.

(6) Once at the assembly point outside, the teacher must take roll and report to the principal to account for all present or missing persons.

(7) Guards should assume posts at exits.

(8) If fire is in hall just outside of room or close enough to close all evacuation routes, pre-established alternate measures should be taken.

Testing and Evaluation of the Fire Response Plan

a. Drills

(1) Drills should be carried out frequently enough for everyone to become familiar with procedures and routines.

(2) The first drill of the year may be announced in advance so that instructions can be given and procedures established. Procedure, not time, should be most important for the first drill. Additional drills should be conducted with time as the important element.

(3) Drills should be carried out under a variety of conditions:

(a) during lunch hours, recesses, assemblies, sports events, regular class periods, class changes, and under varying weather conditions.

(b) with best routes and/or exits blocked to test alternate routes.

(4) Drills should be a surprise to both students and faculty, with perhaps the exception of physical education classes where students may be caught dressing or in showers. Teachers of these classes may be warned ahead of time to plan their activities accordingly.

b. Evaluation

(1) School personnel, students, and library personnel should participate in evaluation.

(2) Observers, such as local fire, police, and emergency management authorities, should perform the evaluation.

(3) A pre-established evaluation questionnaire to cover basic points and elicit additional comments and recommendations for changes in procedure should be used.

(4) Records should be kept and copies made available to the school emergency coordinator and planning committees.

THUNDERSTORMS

Thunderstorms are a frequent occurrence in Maryland. They are often accompanied by lightning, damaging winds in excess of 50 mph, and hail. **Quite often a thunderstorm is a prelude to a tornado.**

Warning

If available, the school should be on a warning system coordinated with the local emergency management agency and/or police department. Radio, television or a weather receiver should be monitored for public warning when weather conditions indicate. Sirens are not sounded unless there is danger of tornadoes. The National Weather Service issues the following alerts:

a. Severe Thunderstorm: means that weather conditions are such that a thunderstorm may develop.

b. Severe Thunderstorm Watch: means the possibility of a storm developing that would be greater in intensity than that indicated by the severe thunderstorm bulletin above.

c. Severe Thunderstorm Warning: indicates that a severe thunderstorm has developed and will probably affect those areas stated in the bulletin.

Preparation

a. Develop a policy for students who walk home or provide their own transportation to:

(1) be dismissed early-before anticipated storm becomes severe.

(2) be provided with emergency transportation.

(3) be kept at school under supervision in protected area until storm passes, walking is safe, or transportation is provided.

b. Develop a policy for school cancellation, delayed school opening, or late dismissal when road conditions are unsafe or severe storms threaten.

Response

a. During a severe thunderstorm warning, relocate all students from portable classrooms to main school building.

b. During watch or warning, cancel outside recess and physical education classes. Even if there is no wind or rain, lightning is always a threat.

c. During periods of particularly high wind, keep students away from glassed areas.

TORNADOES

Tornadoes are local storms with whirling winds of tremendous speeds that can exceed several hundred miles per hour. These generally small and short-lived storms are the most violent of all atmospheric phenomena. Every school must be prepared to take emergency action when threatened by one of these killer storms.

Warning

a. The National Weather Service issues two types of tornado alerts:

   (1) Tornado Watch: means that weather conditions are such that a tornado may develop.

   (2) Tornado Warning: means that a tornado has been sighted and protective measures should be taken.

b. The notification of a weather watch or warning may be received by a tone encoded message from the nearest National Weather Service office through a weather warning receiver or by monitoring local radio/television during threatening weather by prearrangement with police, fire, or emergency management authorities.

c. Every school and public library facility should be equipped with a distinct tornado alarm system. It is important that this alarm cannot be confused with the fire alarm or any other evacuation signal. During a tornado, students and patrons will seek shelter within the building or in a designated tornado shelter.

d. Every facility should also establish a manually operated backup warning system.

Preparation

a. All staff, faculty, administrators, and students should know the "symptoms" of severe thunderstorms and tornadoes.

b. Selected staff members and responsible students should be trained as "severe weather watchers" or "tornado spotters." These people should also be trained in the use of the school's warning and communication system.

c. Establish procedures governing use or non-use of school buses during tornado watches and warnings. Generally, school buses should continue to operate during tornado watches but not during warnings. It should be remembered that school buses are easily rolled by tornado winds.

d. Transportation personnel should be instructed in tornado procedures. A driver who sees a tornado approaching should:

(1) drive away from the tornado's path at right angles if possible.

(2) evacuate bus and take shelter in a predesignated building or other substantial building along the route.

(3) evacuate bus and escort students to ditch or hollow and have them lie face down, hands over head. Keep students far enough from bus so it cannot be turned over on them.

e. Instruct school staff in specific procedures to take during tornado:

(1) Watch. Specific teachers or other staff should be designated to monitor commercial radio or television for tornado warnings, even if the school has a NOAA Weather Radio tone-alert system. Weather spotters should be designated to watch the sky for dark, rolling clouds, hail, driving rain, or a sudden increase in wind, in addition to the telltale funnel. Tornadoes are often obscured by precipitation or darkness.

(2) Warning. A special alarm system should be designated to indicate a tornado has been sighted and is approaching. A back-up alarm should be planned for use if electrical power fails--perhaps a battery-operated bullhorn or an inexpensive hand-swung bell. Specific teachers should be assigned to round up children on playgrounds or other outdoor areas who otherwise might be overlooked. Children in temporary or portable classrooms, or other weaker structures, should be escorted to sturdier buildings or to predetermined ditches, culverts, or ravines and instructed to lie face down, hands over their heads. Most tornado deaths are caused by head injuries.

When children are assembled in school basements or interior hallways during a tornado drill or WARNING, they should be instructed to respond to a specific command to assume protective postures when the danger is imminent. Such a command might be: "Everybody down! Crouch on elbows and knees! Hands over back of head!" It is essential that this command be instantly understood and obeyed. Illustrations showing protective postures should be posted on bulletin

boards.*

*NOAA/PA (pamphlet) 74025, dated 1981

f. With the assistance of authorities, determine and designate the best tornado shelter areas in each building.

(1) Multi-Storied Buildings

(a) Use identified fallout shelters.

(b) Use basements.

(c) Use first floor interior hallways.

(d) Use restrooms or other enclosed small areas away from large glass areas or large open rooms.

(2) One-Story Buildings

(a) Use identified fallout shelters.

(b) Use basements.

(c) Use first floor interior hallways.

(d) Use restrooms or other enclosed small areas away from large glass areas or large open rooms.

(e) If hallways are not suitable, use the inside wall of a room, or rooms, on the opposite side of the corridor from which the storm is approaching. End rooms generally should not be used.

(3) In either one or multi-storied buildings, restrooms are usually suitable for small groups, especially if the room is centrally located.

(4) Auditorium, gymnasium, cafeteria, or other large rooms are least suitable as shelters. Free-span roofs will usually be blown away from this type of room and the walls may collapse.

(5) Rooms having large glass areas should not be used for shelters.

(6) Plat (diagram) the building and determine which areas to use as shelters and the quickest way to get there.

(a) Check space available and number of persons who will use the area, i.e., match people with space (tornado drills will help decide how many rows of students you can place in protective areas).

(b) Post tornado shelter plan in principal's office.

(c) Post in each room the location of tornado shelter to be used by persons in that room and the route to get there.

(d) Provide a copy of this information to the local emergency management agency office.

Response

a. When notified of a tornado watch by the warning receiver or weather conditions indicate the possibility of a tornado, the local radio station should be tuned in and monitored for updated weather information.

(1) Continue normal activities.

(2) Send predesignated "tornado spotters" to central warning point. The spotter should have a clear view of the south and west (the direction from which tornadoes usually come) or the direction of approach of threatening weather.

(3) Take tornado watch building security measures.

(4) Move students from all temporary or mobile classrooms.

b. When a tornado warning is received take emergency procedures at once:

(1) If there is sufficient time to take shelter:

(a) evacuate room quickly, quietly, and orderly.

(b) check restrooms or nearby vacant rooms for students, staff, or visitors.

(c) take personal belongings only if they are at desk and will provide extra protection (large books, notebooks, or coats may be held over head and shoulders).

(d) teacher should take roll book and check attendance once in the shelter and report missing any students.

(e) take position for greatest safety by crouching on knees, head down with hands locked at back of neck.

(2) If there is insufficient time to take shelter:

(a) go to inside wall of the room away from windows.

(b) squat on floor next to wall or get under desks or other furniture by squatting or lying prone on the floor, face down.

(c) if a book can be picked up easily, hold it over your head.

Testing and Evaluation of Tornado Response Procedure

(a) Conduct drills:

(1) frequently enough for everyone to become familiar with procedures.

(2) at various times during the year. Spring is the season of the worst storms, but tornadoes may occur during any season.

(3) under various situations: during regular class periods, assembly periods, class changes, etc.

(b) Evaluate drills by:

(1) using faculty, students, staff, and administration.

(2) using local emergency response agencies, emergency management agency, etc.

(3) using a checklist or questionnaire. Additional comments and recommendations should be elicited from all evaluators.

FLOODS

Many areas in Maryland are subject to floods. Flooding may be caused by heavy rain, tidal surge from tropical storms off the coast, or dam breaks. Even a small innocent creek can become a raging torrent capable of destruction.

Warning

Except in the case of flash flooding, the onset of most floods is a relatively slow process with buildup taking several days. Progressive situation reports are available from the National Weather Service (NWS) and the River Forecast Center District Office arms of the National Oceanic and Atmospheric Administration (NOAA).

Flash flood warnings are issued by the NWS to the public by radio and television. Many communities have a local flash flood warning system to assist in the dissemination of this information.

Preparation

a. Know local history of flooding.

b. Know what a forecast river height means in terms of your school, community, bus routes, and student's residential areas. Helpful information includes:

   (1) knowledge of local elevations.

   (2) knowledge of how elevations relate to river gauges for which forecast was prepared.

   (3) topographic map(s) of area. Note hazardous areas on the map--bus routes, areas of chronic flooding, flood prone creeks, rivers, potentially hazardous dams, bridges and crossings, etc. Note on map safe areas of high ground away from water courses.

c. Plan alternate bus routes to avoid flood prone areas, particularly those areas with histories of flash flooding.

d. Instruct bus drivers of responsibilities during flash flooding including:

   (1) not crossing a flooded bridge.

   (2) not traveling through a flooded area.

   (3) caring for children who cannot be delivered to their home.

   (4) notifying the school office of hazardous conditions observed.

e. Make provisions for students living in affected area to be:

   (1) sent home early.

   (2) kept at school until emergency subsides.

   (3) sent to homes of relatives.

   (4) sent to other homes near school.

   (5) handled in accordance with individual parents' wishes.

f. Make special provisions for students who use modes of transportation other than those furnished by the school system.

g. Locate alternate public buildings in which to conduct classes if school facilities are affected or damaged.

h. Establish policy regarding class cancellation, late opening, early dismissal if school is designated an emergency shelter for other than the normal school population.

Response

a. When weather conditions indicate an area may be affected, radio or television broadcasts should be monitored.

b. Prepare to:

(1) evacuate students to homes immediately in accordance with pre-established school policy.

(a) notify parents via radio, television, or telephone.

(b) notify bus drivers according to standard emergency transportation policy for early/late dismissal.

(2) keep students at school or transport to other evacuation points.

(3) effect school cancellation or late opening policy.

(4) shut off water at mains so contaminated water will not back up into school supply.

(5) pack refrigerators or freezers with dry ice to protect food supplies should power be lost.

c. If school is a designated emergency shelter and time permits, check all supplies and provisions prior to emergency operations.

d. After a flood:

(1) beware of contaminated food, water, broken gas lines, and wet electrical equipment.

(2) resume classes only after determination of building safety.

(3) resume classes in predesignated buildings if school facilities are damaged.

HURRICANES

A hurricane can cause severe damage by the combined effects of tidal surge action, gale force winds, and torrential rains. The flooding and other effects of a tropical storm can be experienced hundreds of miles inland even after the storm has decreased in intensity or has moved beyond the coast. Maryland's coastal location makes it vulnerable to hurricane threats, and schools must take special care to develop procedures for responding to hurricane warnings. Some schools may not be directly affected by the storm but may have classes disrupted if facilities are needed to host evacuees. Added to the danger of hurricanes are possible accompanying tornadoes, high winds and tides.

Warning

The National Weather Service issues weather advisories on approaching hurricanes. Two categories of advisories are issued depending upon the degree of certainty that a storm will strike an area. They are:

a. Hurricane Watch. Means that a hurricane may threaten an area within 24 hours. It is not a warning, but a first alert for emergency responders and the general public in the threatened area. When under a hurricane watch, continue normal activities; but stay tuned to radio or television stations for all weather service advisories.

b. Hurricane Warning. Means that a hurricane is expected to strike an area within 24 hours. It contains an assessment of flood danger in coastal and inland areas, small craft warnings, gale warnings for the storm's periphery, estimated storm effects, and recommended emergency procedures.

Preparation

a. Know the history of hurricanes in the area, the elevation of the school above sea level, and streams or rivers that may flash flood.

b. Know safe evacuation routes to official shelters.

c. Have school buildings evaluated for their ability to withstand hurricane force winds.

d. Identify and designate best internal protective areas within buildings.

e. Schools in particularly hazardous areas should keep materials on hand to tape and/or board up windows and provide other protection to buildings and outdoor equipment as necessary.

f. Schools that are designated emergency shelters or host areas for evacuees from other coastal zones should develop procedures for maintaining emergency equipment, securing buildings, and providing emergency services.

Response

a. Upon issuance of a hurricane warning, schools in the threatened area should be closed and students sent home.

b. If a school has been designated a shelter or host area for evacuees or storm victims, the following measures should be taken if time permits.

(1) Store all portable equipment or loose items inside the building or tie down securely. This might include outside furniture, garbage cans, janitorial equipment, signs, and other movable objects.

(2) Board up all glass areas. If this is not possible, use wide strips of masking tape in an "X" pattern to minimize flying glass.

(3) Lower and securely fasten all venetian blinds and drapes.

(4) Check all battery-powered equipment.

(5) Make certain all emergency cooking facilities and flashlights are in operating order.

(6) Store all drinking water in clean, closed containers, such as jugs, bottles, and cooking utensils.

(7) Assemble tools that may be necessary to make emergency repairs.

c. If time does not permit dismissal of students, they should be:

(1) kept in the areas of the school least exposed to broken glass, flying debris, and possible flooding. Stay in the downwind or leeward part of building if possible.

(2) released only when notified to do so by parents or called for by parents.

(3) evacuated from school to predesignated shelter in accordance with local hurricane evacuation plans if necessary.

d. After the passage of a storm:

(1) avoid use of lanterns, matches, etc., until it has been determined no leaking gas lines or other flammable materials are present.

(2) avoid wet or damaged electrical wires.

(3) check emergency food and water supplies for possible contamination. Boil tap water.

(4) beware of outdoor hazards such as loose debris, damaged power lines, snakes, washed out roads and bridges.

(5) return students to homes when traveling conditions are deemed safe and transportation is available.

(6) do not resume classes until building is declared safe.

WINTER STORMS

The major dangers of winter storms are intense cold and the breakdown of transportation due to poor visibility and road conditions. Maryland is not immune to the effects of severe winter weather as experiences with snow, cold and destructive ice storms have reminded us in recent years.

Warning

Severe weather warnings are issued by the National Weather Service (NWS). When threat of severe weather exists, monitor radio/television for bulletins.

Preparation

a. Establish school cancellation and early dismissal policies relative to snow and/or ice conditions. Include who will make decisions (principal, superintendent, etc.) and under what conditions policy will be enacted.

b. Early in the season in which severe winter weather may occur, inform parents of school plan, under what conditions they might anticipate cancellation or dismissal, and which radio and television stations should be monitored for information.

c. Establish agreement with highway department and local towing services, etc. to respond to stuck or stalled buses.

d. Suggested emergency equipment for buses include:

(1) – two-way radio

(2) booster cables

(3) tow chain or cable

(4) fire extinguisher

(5) first aid kit

(6) shovel

(7) sack of sand

(8) flashlight or signal light with extra batteries

(9) plastic scraper

(10) list of emergency telephone numbers

(11) tire chains.

e. Establish policies to cover bus trips on occasions such as class field trips, tours, athletic events, and other events away from the school and/or off regular routes.

f. Establish an emergency community shelter policy should utility services for areas of the community be disturbed and the school is needed to function as a temporary mass shelter.

g. Establish policy for caring for students or staff members stranded at school facilities.

h. Establish policy for providing emergency transportation for students and staff who normally walk to and from school.

i. Establish procedure for securing building against utility damage (frozen water pipes, etc.).

Response

a. Implement early dismissal procedures. Consider time required for bus drivers to respond to an emergency transportation call; storms may move swiftly and a delay in deciding on early dismissal may trap students and staff at school or en route to homes.

b. Inform students.

c. Notify parents through public media.

d. See that all walking students are properly dressed for cold weather or provided transportation.

e. Bus operator should be instructed to ask each child let off the bus to ask parents to call the next parents on the route to notify them that the bus is on its way. (This could be done during any bad weather, early dismissal or when bus is delayed for any reason.)

f. If bus is stalled or trapped in snow:

(1) stay with the bus.

(2) turn on clearance lights.

(3) run motor only if exhaust is taken away by air currents.

(4) provide ventilation by lowering windows slightly on side away from storm.

(5) do not panic; work slowly.

(6) beware of over exertion.

g. Bus operator should notify supervisor if:

(1) road is blocked.

(2) bus is stuck.

(3) bus has accident.

(4) route is changed.

h. Take predetermined protective measures to secure building against storm damage, prevent bursting pipes, etc.

HAZARDOUS MATERIALS

Thousands of types of hazardous materials are shipped daily across Maryland. The chances that a school may be affected by an accident involving a hazardous material carrier becomes greater with the continuing growth of the industry and the demand for fuel and chemicals.

Warning

Warning of hazardous material incident is usually received from the fire department, police department, or emergency management agency officials when such incidents occur sufficiently near the school to be a threat.

Preparation

a. The vulnerability of the school to hazardous material threats should have been determined during the hazard analysis. The city-county emergency management agency or the Title III, SARA local emergency planning committee would know if the school is within the risk zone for a hazardous material spill or release from a transportation route or a fixed facility.

b. If the school is in a risk zone, it will be designated a "special facility" under Title III, which will require detailed planning for evacuation or, when time does not permit evacuation, sheltering the school population in-place.

c. If the school has been designated a "special facility," ensure adequate means have been established to provide the school emergency notification of a hazardous material release or spill.

Releases of gaseous chemicals, such as chlorine and ammonia, produce lethal clouds that move rapidly, and rapid notification and warning systems are required to protect people in the immediate area.

Response

a. Determine the need for evacuating the school population or sheltering them in-place.

b. If necessary to evacuate the area, move crosswind, never directly with, or against, the wind that may be carrying fumes. Upon reaching a point of safety, take roll call.

c. Be prepared to render first aid if necessary.

d. Notify school superintendent.

e. Principal will direct further action.

f. Students and staff must not return to the school until the fire department or other emergency service officials and the principal have declared the area to be safe.

g. Initiate early/late dismissal as necessary.

EARTHQUAKES

Few areas in the world including Maryland are free from the danger of earthquakes. Those who have experienced earthquakes can testify that even a mild tremor can be frightening if you are not informed of precautions to take for self protection.

Warning

Earthquakes generally occur without warning. Seismologists can identify areas where earthquakes are most likely to happen but cannot yet predict the exact time and place.

Preparation

a. Become aware of the geology of the area and locate faults which may be potentially

hazardous.

b. Give students and staff earthquake safety information.

Response

a. During the shaking:

(1) keep calm and remain where you are. Assess the situation, then act. Remember, most injuries or deaths are the direct cause of falling or flying debris.

(2) if indoors, stay there.

(a) Take cover under desks, tables, or other heavy furniture.

(b) Take cover in interior doorways or narrow halls.

(c) Stay away from windows and beware of falling objects.

(3) if outdoors, stay in the open.

(a) Move away from building if possible.

(b) Avoid utility poles and overhead wires.

(4) if in a bus:

(a) Driver should stop as quickly and safely as possible in open area away from overpasses, road cuts, etc.

(b) Stay in the bus.

b. After the shaking:

(1) evacuate and move to open areas away from buildings.

(2) do not re-enter buildings until authorities have checked them for possible structural damage, leaking gas lines, and other utility disruptions.

(3) teachers should take roll to be sure all students are accounted for and report to the principal.

(4) while inside buildings, do not use any open flames (candles, matches, etc.).

(5) if a radio is available, turn it on for latest bulletins.

(6) use discretion in implementing early or late dismissal policy depending on communications, availability of transportation, damage to school buildings, residential areas, and transportation routes.

UTILITY FAILURE

Utility failures or incidents are common occurrences and may happen anytime. An undetected gas line leak may require only a spark to set off an explosion. Flooding from a broken water main may cause extensive damage to property and building fixtures. Electric power failure may result in the loss of refrigerated food supplies or the creation of a severe fire hazard.

Preparation

a. Identify the possible effects the loss of each utility may have on the school. (Example: Loss of electricity might affect the pumping of heating oil, disrupt heating and cooling system.)

b. Consider the availability of an emergency generator to supply essential needs. (This type of equipment may be available via state or federal surplus property programs.)

c. Inventory the community resources to locate alternate sources of power and other necessary supplies.

d. Identify buildings or parks that are suitable and available in which to conduct classes temporarily.

e. Keep an accurate blueprint of all utility lines and pipes associated with the facility and grounds.

f. Develop procedures for emergency utility shutdown.

g. Establish and maintain a list of phone numbers, including night and day emergency reporting and repair services, for all serving utility companies.

h. Establish and maintain a phone number list of maintenance personnel for night or day notification.

i. Minimize threats of failure through good maintenance practices.

Response

a. Gas Line Break

(1) Evacuate the building immediately by fire drill procedures.

(2) Notify maintenance staff, principal, local public utility department, gas company, police and fire departments, and the superintendent of schools.

(3) Shut off main valve.

(4) Open windows.

(5) Do not re-enter the building until utility officials say it is safe.

b. Electric Power Failure

(1) Call power company.

(2) Notify maintenance staff.

(3) If there is a danger of fire, evacuate the building by fire drill procedures.

(4) Relocate students from rooms without windows and/or direct outside ventilation.

(5) If power cannot be promptly restored, keep refrigerated food storage units closed to retard spoilage.

(6) If a short is suspected, turn off power at main control point and follow repair procedures.

c. Water Main Break

(1) Call facility maintenance.

(2) Shut off valve at primary control point.

(3) Call predesignated assistance groups if flooding occurs.

(4) Relocate articles that may be damaged by water (library books on lower shelves, students' belongings under desks, kitchen and office supplies, etc.).

General

Initiate early or late dismissal, school cancellation, or delayed opening policies as necessary.

BOMB THREATS

A bomb threat may be received at anytime. Experience shows that over 95 percent of all written or telephoned bomb threats are hoaxes. However, there is always a chance that a threat may be authentic. Appropriate action should be taken in each case to provide for the safety of

students, staff, and facilities. The school administration must decide whether or not to evacuate the building and who should conduct the search for a suspected bomb. While the responsibility for action rests primarily with law enforcement authorities, the people who work in the building are most aware of what does or does not belong in or near it. Plans should be flexible enough to allow for discretion in administrative decision making.

Preparation

a. During periods of tension or in the aftermath of bomb threats:

   (1) all rooms should be kept locked when not in use.

   (2) upon arrival in the morning and return to the room during the day, the teacher should check the room and report anything unusual to the principal.

   (3) teachers should stay in the room until all students leave, then secure windows and the doors upon departure.

   (4) custodians should lock the door(s) after cleaning each room.

b. Coordinate plans with local fire and the Emergency Management Agency.

c. Keep a master floor plan of the building available.

d. Develop an efficient and thorough method of searching each building.

e. Brief staff on manner in which to handle a bomb threat call or threatening letter.

f. Post bomb threat call procedures close to the switchboard and/or all office phones.

g. Become aware of the psychological profile of bomb threat callers.

h. Become aware of the appearance and effects of homemade bombs.

Response

Upon receipt of a bomb threat call:

a. obtain as much information as possible from and about the caller:

   (1) listen - do not interrupt.

   (2) try to take down the entire message.

   (3) try to keep the caller talking.

(4) try to have tracer put on the call.

b. notify law enforcement agencies.

c. make a careful evaluation of all information, including:

(1) an evaluation of the call.

(2) the consideration of other bomb threats or related problems.

(3) student unrest or local trouble.

d. from the evaluation performed decide if threat is real or a hoax.

(1) If a determination is made that the threat is real:

(a) evacuate the building immediately using fire drill warning and procedure.

(b) enact early dismissal or delayed opening policies as appropriate.

(c) inform or withhold information from the news media in accordance with standard school policy or at the direction of law enforcement authorities.

(2) If the threat is adjudged to be a hoax, conduct a quiet search of facilities without evacuating the premises.

CIVIL DISTURBANCE

Crisis may be avoided or minimized through early recognition of problems and prompt response actions. The faculty and administration should establish rapport with students and provide an open atmosphere to encourage discussion of grievances and problems. The administration must also be aware of local situations that may generate civil disturbances within the schools through outsiders moving into student groups and inciting student participation.

Warning

a. For explosive situations, devise a signal for the intercom or program bell that will notify teachers to initiate predetermined emergency procedures.

b. During situations of high tension or slow buildup, establish a discreet "messenger service" to keep faculty and staff informed of all developments.

Preparation

a. Create a committee of students that represents a cross section of special interest groups,

clubs, athletic groups and social, racial or ethnic groups. Meet with them on a regular basis.

b. Create a close working relationship with the student government.

c. Establish control measures for disturbances and demonstrations with local law enforcement agencies.

d. Determine under what conditions:

(1) outside assistance will be called in.

(2) plainclothes or uniformed police will be used.

(3) doors to rooms will be locked or areas not affected will be closed.

(4) building(s) will be evacuated by staff or on a controlled basis by law enforcement authorities.

(5) free periods for staff members will be cancelled and staff will be assigned to areas where potential disturbances are developing.

(6) selected students may be used to guard fire alarms or as "messengers" for teachers and other staff to relay information.

e. Organize a parental group that would voluntarily participate in attempts to calm disturbances in the school.

f. Faculty should be aware that they can have a calming effect by exercising good judgement and reasoned action. Individual fear must be controlled and not communicated to students.

g. Consideration should be given, in a particularly serious situation, to have photographers available to photograph students and/or outsiders engaged in unlawful activity.

h. Establish procedures to deal with students who have violated school or state regulations. Include:

(1) policy for reentry.

(2) policy for conferences with parents.

Response

a. When a disturbance or demonstration seems imminent notify:

(1) superintendent.

(2) all faculty and staff.

(3) students of any threat to their safety.

(4) other schools in the area.

(5) law enforcement authorities to stand by or take action.

(6) local government officials, if it is probable that the disturbance will spread off school grounds.

b. Try and maintain normal operations by:

(1) keeping students in classes and away from trouble spots.

(2) containing the disturbance to one area.

c. Avoid verbal exchanges or arguments when a mob is present.

d. Always approach a group in pairs. Do not use physical force. Keep your hands off all students and/or outsiders unless physically attacked.

e. Request police to remove outsiders.

f. Record and report the names of all students and outsiders, if known, involved in disturbance. Record and report details of all incidents.

g. Arrange any meeting with the perpetrators of a disturbance away from the larger group, if one is involved.

h. Secure building entrances.

i. Guard utilities, boiler room, fire alarms.

j. Safeguard essential records.

k. Keep switchboard clear for emergency calls.

l. Regarding news media:

(1) assign a staff member to handle news media.

(2) if necessary provide a press room.

(3) control use of cameras.

(4) urge reporters to present a complete and accurate story of the disturbance rather than isolated inflammatory incidents.

(5) seek media cooperation to help dispel rumors.

(6) use the media to inform parents and the community of known facts and actions being taken.

(7) seek cooperation of the media in withholding information from the public if silence will quell the disturbance.

m. Evacuate building(s) only if necessary for safety. Control is better maintained when students are kept separated into small groups.

n. Close school only after every effort has been made to keep it open.

(1) Initiate emergency transportation policy.

(2) Closely supervise dismissal and loading of buses.

(3) When possible, release students in groups rather than en masse.

(4) If possible, load and dispatch one bus at a time.

(5) Provide students who walk home protection from agitators.

(6) Inform local police prior to closing to prepare them for possible disturbances within the area upon student release.

NUCLEAR EMERGENCY

The loss of life and destruction of property caused by radiological contaminants may occur as the result of aggressive or peaceful use of nuclear materials. During use, processing, or transportation of radioactive materials, accidents may occur that will expose the school to radioactive contaminants. In this case, as well as in the case of nuclear war, the chances of survival are greatly increased when people know what to do and have access to fallout shelters.

Warning

a. Provision should be made for reception of alert or warning from outside sources. (Warning systems will vary from community to community.)

b. The Federal Emergency Management Agency has established two signals. The Attack

Warning Signal consists of a three to five minute wavering sound on sirens or a series of short blasts on whistles, horns or other devices. This signal has only one meaning; enemy attack has been detected and emergency procedures should be implemented immediately. The other signal is the Attention or Alert Signal that is a warning of a peacetime emergency either nuclear or natural. This consists of a three to five minute steady sound.

Preparation

a. Have qualified Emergency Management Agency personnel provide an assessment of the facilities' shelter facilities.

b. Offer a course in personal and family survival to all students old enough to absorb such information, to all faculty members and other employees, parents, and interested community members.

c. Encourage faculty members to take courses in Radiological Monitoring, Shelter Management, and First Aid.

Shelter

a. If there is a fallout shelter in the school:

(1) use it only as designated and approved by Emergency Management officials in accordance with the In-Place Protection (IPP) part of the City-County Emergency Operations Plan.

(2) if there is no IPP, its use should be organized with a designated shelter manager.

(3) provide for shelter supplies.

(4) students and personnel should be assigned space and duties within shelter.

(5) teachers should take their attendance register to determine and report absentees to the principal.

(6) activities should be planned to help reduce tension and pass the time during shelter stay.

b. If there are no fallout shelters in the school facility:

(1) students and personnel may take shelter in predesignated fallout shelters or buildings near the school.

(2) use a tornado shelter if the facility is in an area where damage from blast and heat may occur. Because tornado shelters do not provide adequate protection

from fallout, students and personnel should be moved to fallout shelters when the immediate danger of blasts and heat is over.

(3) and if tornado shelters are not available, initiate tornado emergency protective procedures and move students and personnel to the safest parts of the buildings and away from free span roofs, windows, etc. Insulate the shelter areas with furniture, books, papers, cardboard boxes and supplies, extra clothing, or anything else you can improvise to reduce exposure to radiation.

c. If the facility is out of the blast area:

(1) send children home in the usual manner.

(2) send students to local fallout shelter in accordance with the IPP.

CHAPTER 4

EMERGENCY PREPAREDNESS EDUCATION

It is not enough for the school to provide for the physical safety of students. Students must also be mentally prepared to meet a crisis. Contrary to many commonly held beliefs, it is not the realistic understanding of the effects and consequences of disaster that causes people to take a fatalistic, fearful view of emergency preparedness. Ignorance, misunderstanding, and mistrust of public information and warning are the three things that most often result in inaction, panic, and unnecessary loss of life and property.

To help dispel ignorance, clear up misunderstanding, and develop trust in public information and warning, the school needs to provide students with emergency preparedness information. Disaster awareness and preparedness is best taught by incorporating material into existing courses where it is most relevant. It is not a difficult task, but it does take thought and ingenuity. Teachers will find that by raising their own consciousness to the realities of disaster, they will begin to see numerous opportunities for raising students' awareness by providing safety tips during normal classwork.

The results will be two-fold. First, the ability of the school population to respond to an emergency will be greatly improved when students are fully aware of the rationale behind the instructions they are given. Second, students will have survival skills to increase their abilities to take care of themselves should an emergency arise and there are no responsible adults to take charge.

PRIMARY GRADES

Even a very young child can absorb basic emergency preparedness instruction. A child needs to know that emergencies can happen to anyone and that there are measures that should be taken in self-protection. Without frightening a child, a teacher may introduce concepts of emergency and self-help by relating instructions to the child's everyday experiences. Depending upon the degree of rural or urban character of a community, a teacher should give priority to that which children are most apt to experience in their home or school environment.

Primary school children should be made aware of the natural phenomena and man-made hazards that cause disasters. They should be trained in safety and survival procedures and become acquainted with the people and agencies providing emergency services. They must learn their own sense of self-confidence in problem solving and decision making. Children should also be shown how individual cooperation adds to the safety of the group.

Tips for teachers.

A. Take advantage of the many free materials developed for primary grade emergency preparedness curriculums.

B. Invite speakers from emergency service groups, and visit the emergency management office, fire, etc., facilities on short field trips.

C. Add a few emergency related words to the weekly spelling lesson.

D. Make up math problems involving emergency response times.

E. Have children make maps of their community, designating hazardous areas as they perceive them.

F. Have children draw posters or make up songs or poems about emergency preparedness techniques.

G. Invent a likely emergency situation and assign each child a role--disaster workers, victim, etc. Hold an impromptu play.

H. View a disaster related film and have the children discuss it.

I. Use carefully chosen newspaper and magazine articles to illustrate disasters and their effects.

J. Choose a story involving children and an emergency situation to read to the class.

K. Visit sites where natural change is taking place and emphasize both constructive and destructive effects of floods, fires, and storms.

L. Drill children in personal identification information--full name, address, telephone number.

INTERMEDIATE AND SECONDARY GRADES

As children get older they need more detailed information about the hazards of living. Children in the secondary grades are ready to view events in a continuum from cause to effect. They should be ready to approach the subjects of natural and man-caused disasters in a more realistic, practical manner. Instruction at this level should include increasingly scientific and technical information about hazards, including an introduction to the implications of nuclear war.

Unlike the younger children, secondary grade students are more able to relate to things on a world scale. By the time they have reached junior and senior high they should be well aware of the global relationships and repercussions of natural and man-caused phenomena. They should also have a well developed sense of their own place in the scheme of things and confidence that they have direction and control of their lives. These kinds of positive attitudes can be fostered by ensuring that each student has a stark awareness of the threats to life and a wide selection of life coping and lifesaving information from which to draw.

For adults the words emergency and disaster carry with them graphic pictures of death and destruction--things we do not care to think about. But for adults, and children as well, group discussion of these facts of life and death provide an opportunity to examine fears and realize the many feelings we share. This knowledge is often a source of comfort and strength in an emergency. Teachers find that the study of the psychological and philosophical basis of human reaction to extreme events generates profound and satisfying discussion.

Tips for intermediate grade teachers

Science

a. Relate disasters to physical change, conservation, ecology, and environmental science.

b. Keep daily weather charts and note both the subtle and dramatic changes on the graph.

c. Study Maryland's vulnerability to hurricanes, tornadoes, flooding and other natural hazard phenomena, and the relationship of weather and climate to geographical location.

d. Discuss the hazards overcome by science and technology and the hazards science and technology have created.

e. Discuss the potent forces of storms and nuclear detonations.

f. Keep a scrapbook of newspaper clippings to illustrate the scope and effect of natural and man-made disasters, the frequency of disasters, and the benefits of preparedness.

Social Studies

a. Study the interdependence and cooperation of people, organizations, and nations when disaster strikes.

b. Study the effects disasters such as wars, earthquakes and fires have had in changing the course of history.

c. Compare the hazards that faced the pioneers of early Maryland to the ones faced by modern Marylanders.

d. Examine the emergency functions of various government agencies.

e. Invite the local emergency management agency director to explain his/her role in emergency planning and response.

f. Compare and discuss the hazards of living in other countries.

g. Compare and discuss the hazards common to Maryland with other places of equal

latitude.

Health and Physical Education

These are ideal courses for teaching safety and survival techniques, basic first aid, etc. Have students simulate a disaster situation and take turns playing victim and rescue workers. Practice simple carry/stretcher improvisation, etc.

Language Arts

a. Give the class a list of reading material about disasters and emergencies. Assign book reports and have students present them to the class. Hold a discussion about disasters and the various reactions and responses the children discovered in their reading.

b. Add emergencies/disaster related words and phrases to vocabulary and spelling lists.

c. Have students write a short story, poem or play relating a personal account of a fearful situation, emergency, or disaster.

Music and Art

a. Have students make safety posters and display them during a special school disaster awareness week.

b. Make a collage of disaster pictures, or paint a mural of an emergency operation.

c. Discuss the effect of music in reducing fear and anxiety. Use "Whistle a Happy Tune" and other songs as examples. Have the class compose a song of its own.

d. Have students design pocket identification cards and encourage them to carry the card at all times.

Tips for teachers in junior and high school

Language Arts

a. Assign novels for reading assignments that relate to disasters.

b. Have students critique various journalistic approaches to disaster reporting, e.g., sensationalism, etc.

c. Have students examine local newspapers as far back as they are filed (or kept on microfilm) and compare past disaster reporting with the present styles. Conduct a historical survey of community disasters and make a class report to print in the school or local newspaper.

Math

a. Have students locate the epicenter of an earthquake using a world map, a compass and the formulas for S and P wave.

b. Invent a word problem story using a series of formulas and math skills.

Chemistry

a. Discuss the composition of matter. Lead a discussion of nuclear weapons, their effects on people and the environment, and how people can protect themselves from fallout.

b. Discuss the positive and negative aspects of peacetime nuclear use.

Science

a. Earth science classes should examine natural forces that create disasters, e.g., faulting, volcanism, tsunamis, mass earth movements, sinkhole collapse. Rate the state using geologic and topographic maps, noting hazardous areas and regions.

b. Set up a simple weather station.

c. Provide students with ideas for science projects involving hazard mitigation and detection.

d. Study coastal development and the hazards man creates by alternating natural processes (i.e., the relationship of sand dunes, beach erosion and flooding).

e. Show and discuss films of storm development.

f. Discuss the positive and negative aspects of science and technology.

g. Study nuclear power and alternatives (solar, tidal, etc.).

h. Study the "greenhouse effect" and its implications. What can reduce the possibilities of such occurences?

Home Economics

a. Study emergency mass feeding techniques, food preparation, nutrition, and maintaining health during food rationing. Examine easily stored and preserved foods.

b. Study home techniques for storage, rotation, and preparation of emergency foodstuffs.

Social Studies

a. View the world and the ways different cultures regard resources and hazards. Ask the question, "Are these things universal or is one person's hazard another person's resource?" (Example: Compare the flooding of the Nile to the flooding of the Mississippi. Examine the ways in which people adapt to what we perceive to be hazards and make them essential to life.)

b. Compare the cultural response to hazards along the east coast of the U.S. and the east coast of Asia. How is it the same: Different? How do history and philosophy influence cultural response? (There are no fixed answers to many of these questions you may ask about the effect of environment on culture and history, and vice versa - but they are thought provoking questions that can generate many lively discussions.)

c. Study the psychology of fear, stress and grief. Ask why people tend to become altruistic during disasters. Can disasters be beneficial? Do they alter our sense of values? Unify communities?

d. Study the history of disasters in the U.S. Use the San Francisco earthquake, Chicago fire, etc., as examples. How did they alter city development? What were other effects?

e. Study the philosophy of natural history. Ask if preservation of a truly natural environment is possible or desirable. If man is a part of the natural environment, are his changes natural, too?

Biology

a. Study the effects of radiation on biological organisms.

b. Study evolution and adaptation to the hazards of an environment.

c. Compare animal instinct to human reactions. Do animals sense danger? Does man?

d. Examine the ways in which plants and animals react to and recover from disasters. (Example: Some pine trees reseed by fire.)

Health and Physical Education

a. Offer courses in advanced first aid.

b. Organize rescue teams and train with local volunteer rescue organizations.

c. Relate health and fitness to self-preservation.

d. Study emergency procedures for maintaining sanitary conditions and preserving food quality during disasters.

DISASTER DAY

A. Provide students with a "crash course" in emergency preparedness by declaring a disaster day. Carefully planned, a disaster day can be lots of fun and result in the improvement of the school's emergency response posture. It is recommended that disaster day be held as the culmination of a disaster awareness week. Suggestions for some activities leading up to disaster day are:

1. concentrated effort to include emergency preparedness materials in regular classroom activities.

2. enlistment of art classes to create posters and disaster awareness bulletin boards.

B. Some suggestions for disaster day activities include:

1. having responsible students, designated by placards or black drapery, represent a "tornado". "Tornado" may appear as a surprise to preselected classrooms, or assemblies during the day, and students and staff will be required to take emergency action immediately upon sighting the "storm."

2. holding a variety of drills, including severe weather, fire, and emergency exit from a bus.

3. holding a drill during general assembly by prearrangement with the speaker.

4. serving emergency rations for lunch.

5. staging a mock accident involving a bus with preselected students and staff taking parts as victims and rescue workers.

6. having a "Careers in Emergency Warning and Rescue" session with representatives from a variety of sources: Emergency Management, military, etc.

C. Students will enjoy a day to wear old clothes and vary their normal routine. They are eager to participate in the physical activities associated with emergency rescue work and individual safety measures. This kind of practice, however brief, aids in preparing students both mentally and physically to respond in emergency situations benefiting themselves and others.

RESOURCES

In addition to the resources normally found in or available through school media centers or public libraries, many informative books, pamphlets, periodicals, films, and videotapes concerning natural and man-made disasters are available through businesses, industry associations, volunteer organizations, federal agencies, and library and library-related resources.

A. Business, Industry Associations, and Volunteer Organizations

Since most of the resources available through these agencies vary according to the type of disaster, it is suggested you contact them individually for a catalog or listing of resource materials and their costs.

1. Liberty Mutual Fire Insurance Company
   175 Berkeley Street
   Boston, Massachusetts 02100

2. Insurance Information Institute
   267 West 25th Street
   New York, New York 10001

3. American Red Cross
   (Contact your local chapter or)
   Atlanta Metropolitan Chapter
   1925 Monroe Drive
   Atlanta, Georgia 30324

B. Federal Emergency Management Agency (FEMA) Public Information Films

The Maryland Emergency Management Agency maintains a limited number of films and videotapes that may be loaned. Write to:

Director
Maryland Emergency Management Agency
2 Sudbrook Lane, East
Pikesville, Maryland 21208

The following resources are available through the Maryland Emergency Management Agency. For more information contact your local emergency management agency.

Floods and Hurricanes

a. "Lady Called Camille," color, 16mm film, or 3/4-inch videotape, 27 minutes. Depicts Hurricane Camille and presents advance warnings and evacuation efforts that saved thousands of lives.

b. "Hurricane," 1985, FEMA 20-97, videotape 3/4 inch, color, 28 minutes. Highlights the actions taken to prepare for and respond to Hurricane Alicia which damaged the Texas Coast in 1983.

c. "Storm", color 16mm, 28 1/2 minutes. Tells the story of the disastrous flooding caused by Tropical Storm Agnes. It concentrates on the flooding in Pennsylvania where the City of Wilkes-Barre and neighboring towns along the Susquehanna River safely evacuated 80,000 persons when the river crested at 40 feet and topped the dikes.

d. Floods in Cheyenne and Kansas City, 25 minutes, 1/2-inch videotape.

e. Hurricane Agnes, 1/2-inch videotape, 20 minutes

Nuclear Emergency

"About Fallout," color, 16mm, 24 minutes. One of the most definitive films on this phenomenon of the nuclear age now available to the general public. The film is designed to dispel many of the common myths and fallacies now surrounding the subject in the public mind--and to present the facts, as clearly and simply as possible, in layman's terms. Based on the government's many intensive scientific studies, it uses both animation and live action to illustrate the basic nature of all radiation, its effects on the cells of the body, what it would do to food and water after a nuclear attack, and what simple common sense steps can be taken to guard against its dangers.

Tornadoes

a. "Terrible Tuesday", Wichita Falls, Texas, 3/4" videotape, 23 min.30 sec.

b. "Minnesota Tornadoes", 3/4" videotape, 14 minutes.

c. "Twister", color, 16 mm, 27 minutes. This film tells the story of the monstrous tornado that nearly leveled Lubbock, Texas, and how the city responded.

C. Films of Interest from Other Federal Agencies

Working with FEMA in related fields of disaster and emergency preparedness are other federal agencies, such as the Department of Energy and the National Oceanic and Atmospheric Administration (NOAA), which includes the National Weather Service, and the National Science Foundation. They also offer public information films on a variety of subjects, available on a free loan basis, and film catalogs listing their offerings can be obtained by writing to:

1. NOAA Public Affairs Office
   National Oceanic and Atmospheric Administration
   14th and Constitution Avenue
   Washington, D.C. 20230

2. Publications Unit
National Science Foundation
Office of Legislative & Public Affairs, Room 527
1800 G Street, NW
Washington, D.C. 20550

D. Federal Emergency Management Agency (FEMA) Publications

FEMA offers a variety of publications pertaining to natural and man-made disasters that are beneficial as resource material that may be obtained free of charge through your local emergency management organization or by contacting the Maryland Emergency Management Agency. Items available include the following.

Kits and Posters

1. Survival in a Hurricane (wallet card)
2. Tips for Tornado Safety (wallet card)
3. Flash Flood (wallet card - English)
4. Poster 2, Hurricane
5. Poster 5, Winter Watch for Kids
6. Poster 6, Earthquake
7. Poster 9, Emergency Poster

E. U.S. Department of Commerce/National Oceanic and Atmospheric Administration (NOAA) Publications

NOAA publications pertaining to weather hazards may be obtained by contacting your local emergency management or National Weather Service office. If not available locally, copies may be ordered from:

U.S. Dept. of Commerce
National Oceanic & Atmospheric Administration
NLSC Nat'l Logistics Supply Center
1510 E. Bannister Rd., Bldg. 1
Kansas City, MO 64131

A summary listing of resources available:

1. NOAA/PA 76008, Hurricane - The Greatest Storm on Earth. A description of how hurricanes are formed, detected and timely warnings are issued. Defines hurricane terms recommends individual actions to make the most of early warning.

2. NOAA/PA 74025, Tornado Safety Rules in Schools, A folder designed as a poster to be displayed on a bulletin board or a place where children will see it and become familiar with its lifesaving message.

3. NOAA/PA 76019, Skywarn. A poster showing what to do when a tornado threatens and defines the terms "Tornado Watch" and "Tornado Warning."

4. NOAA/PA 78019, Storm Surge and Hurricane Safety. Definitions of the terms "Hurricane Watch" and "Hurricane Warning" and other terms used by the National Weather Service in statements concerning tropical cyclones, as well as a hurricane tracking chart for the Atlantic and Gulf areas.

5. NOAA/PA 70027, Survival In a Hurricane. A folding card that defines the terms "Hurricane Watch" and "Hurricane Warning." Provides helpful tips when your area receives a hurricane warning.

6. NOAA/PA 73018, Flash Flood. A poster showing actions to be taken during a flash flood watch or warning.

7. NOAA/PA 79018, Winter Storms. A description of rules for winter storm safety.

8. NOAA/PA 78022, Winter Storms. A poster describing rules for winter storm safety.

9. NOAA/PA 82001, Tornado Safety. A folder on tornado safety.