A CONTEMPORARY APPROACH TO MANAGING HAZARDOUS MATERIALS EMERGENCIES

By The
Honorable Fred J. Villella
Executive Deputy Director
Federal Emergency Management Agency

Presented to the
Symposium on Emergency Chemical Spills
Hosted by the Pan American
Center for Human Ecology
and Health/Pan American
Health Organization

Good Afternoon,

It is a special pleasure for me to be with you representing the Federal Emergency Management Agency's Executive Deputy Director, the Honorable Fred J. Villella. He sends to you his best wishes for a highly successful Symposium on Emergency Chemical Spills. The fact that this important symposium is being held and that all of you are here attests to the increasing significance of planning for hazardous materials incidents. Executive Deputy Director Villella has asked me to extend congratulations to Dr. Finkelman and the others present for realizing how necessary it is to call attention to this important area of emergency management.

Let me explain, very briefly, what the Federal Emergency Management Agency (FEMA) is and what we do.

The Federal Emergency Management Agency is the central point of contact within the Federal Government for a wide range of emergency management activities in both peace and war. We are dedicated to working closely with all members of the emergency management community to achieve a realistic state of preparedness and an increased capacity to respond to all types of emergencies.

Among FEMA's responsibilities are:

- o Ensuring continuity of the government and coordinating the mobilization of resources during national security emergencies.
- o Supporting state and local governments in a wide range of disaster planning, preparedness, mitigation, response, and recovery efforts. Included in this category are hazardous material incidents.

- o Coordinating federal aid for presidentially declared disasters and emergencies.
- o Developing practical application of research to lessen the damaging effects of emergencies and disasters.
- o Determining which materials are strategic and critical and setting goals for the national defense stockpile.
- o Coordinating civil emergency preparedness for nuclear attack, nuclear power plant accidents, and nuclear weapons accidents.
- o Providing training and education to enhance the professional development of federal, state and local emergency managers.
- o Reducing the nation's losses from fire.
- o Administering the national flood insurance program.
- o Developing community awareness programs for weather emergencies and home safety.

The Federal Emergency Management Agency places great emphasis and follow-through on its coordination role--at all levels of government and with private organizations.

In 1982, FEMA developed an Integrated Emergency Management System (IEMS) as a means of administering its training and education programs and its intergovernmental coordination responsibilities. This approach to the management of problems associated with natural and man-made disasters has been in a rapid stage of contemporary development. The State and Local Programs Support Directorate within FEMA is responsible for implementation of the IEMS program at the state and local level. The hazardous materials program is an integral component of the IEMS's concept.

The basic IEMS approach recognizes that there are certain characteristics and requirements which are common across the full spectrum of emergencies -- evacuation, sheltering, communications, direction, control, continuity of government, resource management, law and order and the providing of food and medical supplies. In all the programs conducted by the Federal Emergency Management Agency, the IEMS approach is being instituted to assist state and local officials in building emergency management capabilities. This creates a solid foundation for planning, mitigating, responding to and recovering from emergencies, whether they are related to natural or technological disasters, resource shortages or war-related national security situations.

FEMA's objetives in its hazardous materials program are to improve Federal, State and local, and industry partnerships in the management of hazardous materials incidents; to reduce duplication of effort; to avoid disjointed expenditure of dollars on behalf of health, safety, and protection of the environment. Emphasis is placed on awareness and integrated emergency management.

I cannot over-emphasize the importance of training, especially in the area of hazardous materials incidents. The Federal Emergency Management Agency is the designated federal agency responsible for development and delivery of emergency management training. The individuals who face the dangerous task of responding to hazardous materials incidents must routinely take immediate action and frequently suffer death and injury because they have not been sufficiently trained. Often these response forces are unaware of the hazardous content of the incident

until they are, in fact, hospitalized.

One broad goal of our training program is to raise not only the skill level of the initial responders but also that of the emergency managers, coordinators, directors and executives. The purpose is to make these representatives more knowledgeable, and competent to perform at the state and local level.

As today's technological disasters occur, particularly those we call hazardous materials incidents, there must be equally contemporary training to help the emergency management community prepare, mitigate, respond to and recover from these disasters.

Fundamental to all of the training and education efforts conducted by the Federal Emergency Management Agency's National Emergency Training Center (NETC) is the focus on raising the overall state of emergency preparedness. The primary goal of emergency preparedness is that it must be designed so as to quickly, smoothly, and effectively respond to the interruptions of normal government activities created by an emergency. NETC also serves to disseminate emergency management education through state-of-the-art training at the national level and encourages the replication of similar training at the Regional, State and local level.

Since its opening in 1981, the National Emergency Training Center's growth has been phenomenal. The audience is no longer restricted. In the past, the audience had almost entirely been civil defense people. Today our audience includes: majors, city managers, federal and state officials, police and fire chiefs, public administrators, National Guarel Major Generals, and chief executive officers representing both

the public and the private sector. The number of graduates increased from 1200 in 1981, to a projected 4 080 in 1984. In fact, since 1981, 12 530 students have been trained in the residence programs at NETC and over 300 000 students have been reached through the total program activities. One-third of these totals have received hazardous materials emergency management training. Over the previous 10 years, approximately 100 000 students have been trained.

NETC is located on the 107 acre campus of the former Mt. St. Joseph's College just south of the Pennsylvania border near Gettysburgh. Dormitories and classrooms are modern, well-equipped, and air conditioned. Five residence halls can accommodate over 450 students in single and double occupancy rooms while classrooms accommodate up to 1 000 students at one time. The facilities include a 240-seat lecture hall, an 800-seat auditorium, an arson fire-scene laboratory, a computer laboratory, a fire tactics simulator, a hazardous materials tactical simulation area and an integrated emergency management exercise facility.

This training facility impacts the three major characteristics of FEMA's philosophy which are:

1) Expand the audience;

2) Emphasize training in emergency management; and

3) Emphasize scenario-based exercise and performance.

This philosophy is manifested in FEMA's new Integrated Emergency Management Course, which brings together State and hands-on, simulation experience in working under stressful emergency situations. Such training strengthens the overall preparedness posture of the emergency

management team and builds more effective community partnerships.

The total emergency management team must always be considered in order to properly and efficiently plan for, mitigate, respond to, or recover from an emergency such as a hazardous materials incident or chemical spill, bridges must be built that lead to productive working partnerships among all levels of government.

However, emergency preparedness for the mobilization of industrial and economic resources for any catastrophic event is not just the job of the Federal Government alone.

For too long, it has been perceived that emergency planning and mobilization are solely Federal responsibilities. Scenarios are written but the cast seldom includes state and local governments who, in fact, must be key players in order to achieve effective and productive preparedness. The United States requires an emergency management program which is not fragmented by lack of coordination or convoluted by territorial imperatives.

Government and the emergency management community must seek solutions to overcome the problem of provincial attitudes -- the traditional parochial and self-interest obstructions which impede progress in the development of an overall Emergency Management Program. In order to overcome these problems it is imperative that responsible policy-makers understand the need to remove these barriers by establishing collaborative and cooperative partnerships to provide for preparedness at all levels for all possible disasters.

Now, I would like to elaborate further on the subject of

hazardous materials training, specifically on the topic of how our agency is planning to meet the hazardous materials training challenges of today and tomorrow.

In 1981, the National Emergency Training Center (NETC) was established to place a higher priority on advancing the development of people who plan for and respond to all types of emergencies. As it is FEMA's mission to reduce the impact of natural and man-made disasters, it is the challenge for and the function of the Center to deliver training programs that will assist local officials in reducing the loss of lives and damage to property.

Four training entities exist on the campus location: The Senior Executive Policy Center, National Fire Academy and the Emergency Management Institute, along with the United States Fire Administration. Newest of these entities is the Senior Executive Policy Center. Here top state and local officials train and discuss major emergency policy issues along side university officials. International experts are included.

The National Fire Academy was authorized by the Fire Prevention and Control Act passed by Congress and signed by President Ford in 1974. The Act recognized the need for both a residential facility to offer long-term courses, and an extensive outreach effort for this nation's fire and rescue service and allied professionals to help them become proficient in planning for and taking appropriate action in responding to emergencies and disasters. Since the National Emergency Training Center was established, the National Fire Academy's Resident Program

has trained more than 10 000 students with over 1 500 attending the Academy's Hazardous Materials Program consisting of the following three courses:

- o Chemistry of Hazardous Materials
- o Hazardous Materials Tactical Considerations
- o Hazardous Substances Specialist Training

This is a small portion of the numbers who should be trained. Our nationwide outreach effort has conducted over 500 course offerings in cooperation with the Fifty State Fire Training programs reaching over 40 000 career and volunteer firefighters. During 1982, the National Fire Academy instituted a Train-the-Trainer program in which field-tested course packages were distributed to state and local authorities. This past spring and this summer, 160 lead trainers from the states, territories, Department of Defense, and the 100 largest fire departments in the country are being trained to deliver three hazardous materials courses:

- o Hazardous Materials Recognition and Identification
- o Hazardous Materials Incident Analysis
- o Hazardous Materials: The Pesticide Challenge

The Academy is also in the process of developing a computer-aided package and videotape series focusing on the chemistry of hazardous materials.

The U.S. Fire Administration (USFA), also located at NETC, is the agency that carries out research, development and technical

assistance activities aimed at reducing the nation's fire problem. Among its activities, the USFA conducts research into the equipment and methods which the nation's fire service must employ to be of maximum effectiveness in combating fire and other incidents such as those involving hazardous materials. The projects include efforts to enhance and improve protective wearing apparel, self-contained breathing apparatus, and related personal safety items that have been under development for some time. In association with the medical profession, a standard protocol to assist medical personnel in evaluating the extent of injuries, particularly those associated with exposure to toxic products of combustion is being developed.

Hazardous materials related research projects include: the development of a long duration oxygen rebreathing unit for use at emergency incidents, an improved short-range radio for better safety and coordination, and the development of a quick entry suit for fire service use. These efforts represent another facet of the Agency's commitment in addressing the problems of hazardous materials incidents in the United States.

The Emergency Management Institute (EMI) offers professionals many advanced courses and seminars in comprehensive emergency management activities. Training is available in residence at the EMI campus, and off-campus through cooperative efforts with the Federal Emergency Management Agency, Regional and State emergency management organizations, and also through home study.

A major feature of the Emergency Management Institute curriculum is the Integrated Emergency Management Course (IEMC). This course enables key members of a community emergency management team to rehearse, exercise, and test its capacities together. The program points out potential weaknesses in existing plans, preparations, and response to emergency management problems including hazardous materials incidents. This is accomplished through lecture learning blocks delivered by experts, planning sessions, and full-blown simulation exercises designed to test the skills, knowledge, awareness, and responsiveness of the participants under pressure. Other course materials on hazardous materials have been prepared for the Emergency Management Institute's program. A radiological emergency preparedness package teaches skills needed to effectively manage an incident involving radioactive materials during the first several hours until either the incident is resolved or state and federal aid arrives. The radiological emergency preparedness materials present technical information and develop specific tactics and strategies for all types of radiation accidents.

In addition, another course -- "Analysis of Hazardous Materials Emergencies" focuses on both the nature and characteristics of hazardous material and the key situational factors at the incident scene.

Although the Emergency Management Institute and the National Fire Academy are involved in hazardous materials training, Mr. Villella appointed a Federal Emergency Management Agency Hazardous Materials Task Force in 1983 to examine the hazardous materials training activities of federal agencies and to submit recommendations designed to improve such training.

This talk force found ten federal agencies, including FEMA, to be involved in some facet of hazardous materials training. It found further that:

1. Few U.S. government agencies have developed comprehensive hazardous materials training programs, or prepared assessments of existing training facilities.
2. No federal coordinator or single point of contact exists within the federal framework of hazardous materials training.
3. There are few facilities in existence for comprehensive hazardous materials training, particularly where responders can be trained in a simulated accident environment.
4. There is no systematic federal approach to hazardous materials training; and
5. Since no federal coordinator exists, the federal government has not provided the means with which to "rationalize" hazardous materials training.

After careful assessment and evaluation, the task force recommended that the Federal Emergency Management Agency chair a National Conference on Hazardous Materials in FY 1985 and negotiate Memoranda of Understanding with the other U.S. agencies, and also recommended the expansion of the Train-the-Trainer course to address the issues of emergency preparedness and response to hazardous materials accidents.

In conjunction with the Integrated Emergency Management System, and

in coordination with other agencies, FEMA has developed several interagency initiatives related to hazardous materials emergencies. They include:

1) The development and publication of Guidance for State and Local Radiological Emergency Response Plans for Transportation.
2) Through an interagency agreement between FEMA, the Department of Energy, the Department of Transportation, and the Nuclear Regulatory Commission, the Federal Emergency Management Agency is supporting a study on the magnitude and characteristics of commercial shipments of radioactive material within the continental U.S. The study is scheduled for completion in FY 1984.
3) The FEMA Region is working closely with the State of New Mexico to develop a prototypical emergency response plan for hazardous materials transportation incidents. This information will be published for the use of other State and local governments in FY 1985.
4) The Agency has also developed and has commenced a 36-hour course utilizing a simulated railroad accident involving numerous types of hazardous materials and radiological mishaps. The participants included representatives from federal agencies, state organizations, local governments, shippers, and carriers, and
5) We have published and distributed a planning guide and checklist to assist in the development of hazardous materials contingency plans.

In addition to these initiatives, the Federal Emergency Management Agency has been and continues to be engaged in other interagency efforts related to hazardous materials. FEMA has established a productive relationship with the Department of Transportation, the Environmental Protection Agency, and other Federal agencies in this broad area. For example, we served as the federal coordinating agency for the response and recovery efforts for the dioxon incident at Times Beach, Missouri. We are also a charter member of the National Response Team (NRT) established by the Clean Water Act and mandated by Presidential Executive Order 12316. FEMA also chairs the Federal Radiological Preparedness Coordinating Committee which has the responsibility for coordinating the development of a Federal Radiological Emergency Response Plan (FRERP) for coordinating all types of radiological emergencies.

A similar coordinating body exists in each of the Ten Federal Regions of the U.S. to assist State and local government officials in the development of their radiological emergency plans, to review their plans, and to observe exercises to evaluate the adequacy of the plans.

It is FEMA's belief that the ability of any government, at any level, to fulfill its primary function as protector of its citizenry is directly dependent upon the ability of various individuals, groups, and jurisdictions to react in a coordinated, predictable, effective and acceptable manner to any emergency irrespective of cause or magnitude. A government cannot expect to effectively manage and respond in a crisis unless there has been adequate planning, preparation, training and exercising during periods of little or no stress.

Plans have been made in the United States for the expansion of the hazardous materials program in order to support our nation's

emergency personnel who are dealing with the increased problem of hazardous materials substances and wastes. There are serious national concerns being voiced in countries throughout the world for the potential impact of hazardous material accidents.

FEMA is considering the sponsorship of an International Hazardous Materials Conference in the near future at the National Emergency Training Center. I would greatly appreciate any suggestions you may have concerning this conference.

As a representative of the United States government, and as a person who values the life and safety of all people, it is my strongest hope that this conference will address those concerns and provide opportunities to develop a framework for long-lasting cooperative relations.

Once again, it is a pleasure to be with you at this very prestigious symposium and I thank you for extending to me an invitation to speak with you today.