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DEPARTMENT OF TRANSPORTATION, BEFORE THE HOUSE PUBLIC
WORKS AND TRANSPORTATION COMMITTEE

MAY 7, 1979

Mr. Chairman and Members of the Committee:

I am pleased to be before your Committee to discuss the hazardous materials program of the Research and Special Programs Administration (RSPA), particularly our activities since the last authorization hearings on the Hazardous Materials Transportation Act (HMTA) (Pub. L. 93-633, January 3, 1975) held by the House Public Works and Transportation Committee on April 19, 1978.

The authority under current legislation to appropriate funds expires at the close of this fiscal year. We are before this Committee seeking legislation to authorize future appropriations in support of the continuing efforts of the Department and the Administration to ensure safe movement of hazardous materials in commerce. Since, during recent years, there have been a number of regulatory and enforcement program initiatives, I would like to begin with some background which will underscore some of the significant advancements we have made in implementing the provisions of the HMTA. The Materials Transportation Bureau (MTB) has the Department's major development and coordinating role in the hazardous materials transportation. To ensure a uniform approach to regulation, the Secretary of Transportation delegated this responsibility to the MTB (now a part of the RSPA) when it was established in July 1975. With one exception, formulation and issuance of regulations are Bureau responsibilities.

Regulation of bulk transportation of hazardous materials by the marine mode remains the responsibility of the Coast Guard, which issues, as well as enforces the applicable regulations. Otherwise, the evaluation and development of the substance of hazardous materials transportation regulations peculiar to a single mode of transportation are handled by the appropriate operating administration. It coordinates this effort with the Bureau's Office of Hazardous Materials Regulation which performs a review function, applying its special expertise to the particular material involved. Notices of proposed rulemaking are then issued by the Director of the Office of Hazardous Materials Regulation and final regulations by the Director of MTB.

The HMTA extended the Department of Transportation's regulatory authority to the manufacturers of packagings and containers used in the transportation of hazardous materials. The Materials Transportation Bureau exercises enforcement authority over these entities, as well as multimodal shippers of hazardous materials. However, it is the Department's four modal operating administrations - the United States Coast Guard, the Federal Aviation Administration, the Federal Highway Administration, and the Federal Railroad Administration - which have responsibility for enforcing regulations pertaining to the respective modes of transport in addition to contributing to the development of the MTB's regulations concerning its respective mode. Thus, inspection, compliance and enforcement actions related to carriers by the specific modes are planned and carried out by these administrations.

Several considerations led to the decision to leave enforcement responsibility with the operating administrations. First, adequate inspection requires that hazardous materials inspectors have a working

knowledge of the mode by which a shipment is being carried. Second, the operating administrations have existing field forces with considerable experience in inspecting hazardous materials shipments.

IMPROVED ORGANIZATIONAL STRUCTURE.

The first of the recent and significant improvements relates to our administrative structure. The increasing diversity of hazardous materials technology, the requirements for shipping materials over greater distances, and increased emphasis on international transportation of hazardous materials have contributed to the growth of this type of transportation and to more frequent intermodal transfers of hazardous materials. This growth in volume and complexity requires careful coordination of regulatory and enforcement activities within the Department of Transportation to ensure uniformity and preclude unnecessary duplicative efforts.

Recognizing the need for a strong and efficient organizational structure to support the multimodal hazardous materials program, Secretary Adams reorganized the Office of the Secretary in 1977, by consolidating technical and research functions and, along with the MTB, placing them in the Research and Special Programs Administration. The basic mission of the MTB is still to develop and enforce programs to make the transportation of hazardous materials safe. However, our new organizational alignment strengthens the support services available to MTB, particularly those in areas of administrative, budgetary, and research and technology capability. A number of new or strengthened relationships are being developed among the various RSPA elements which include the Transportation Systems Center in Cambridge, Massachusetts in the areas of data and information systems and laboratory testing, and the Transportation Safety Institute in Oklahoma City, in hazardous materials training and educational programs.

For example, in late 1978, the MTB began the process of withdrawing various delegations of authorities previously delegated to the Bureau of Explosives of the Association of American Railroads. The long overdue withdrawal of the delegations, primarily concerning packaging approvals, was possible because much of the testing and approval will now be done at the Transportation Systems Center in Cambridge, Massachusetts.

The MTB's internal organization has also undergone a reorganization which restructured the former Offices of Hazardous Materials Operations and Pipeline Safety Operations into four separate offices - Offices of Hazardous Materials Regulation, Pipeline Safety Regulation, Operations and Enforcement, and Program Support. This realignment of functions, by consolidating the common operational and support type activities, has enabled more effective utilization of resources across the two safety programs. Moreover, the separation of responsibility and management for establishing the rules and from that for implementing and enforcing them has improved both aspects of the hazardous materials program.

REGULATORY SIMPLIFICATION.

This organizational background is particularly relevant to some recent program initiatives and achievements. DOT had been concerned that the complexity of hazardous materials transportation and its regulation was leading to problems in understanding and using the hazardous materials regulations by the public. Less than three years ago, the hazardous materials regulations governing transportation by air, rail, highway, and water, and previously contained in three different volumes of the Code of Federal Regulations (Title 49, Title 46, and Title 14), were standardized and consolidated to promote ease of understanding. This effort also reduced the volume by approximately 700 pages.

As an example, the regulations dealing with shipping papers, marking, labeling, and placarding were made uniform and consolidated into Part 172 of Title 49 to form the Hazardous Materials Communications Regulations. The system prescribes uniform labels and placards which facilitate intermodal transfers and which are readily identifiable by both routine handlers and emergency response personnel who need to be alert to any actual or potential risk. These new regulations include an expanded list of definitions to enable understanding of the various terms which previously were associated with only one mode of transportation.

This consolidation has encouraged compliance with the regulations, as well as aided the Department's surveillance and enforcement efforts. The same rulemaking action removed certain regulatory requirements from small packaged goods, including common household items such as cleaning solvents and aerosol packaged deodorants, which present little hazard in transportation. The new materials classification, Other Regulated Materials - or ORM's - exempts limited quantities of such consumer goods from labeling and packaging requirements.

REGULATORY AND RULEMAKING PLAN.

Responding to both the President's Executive Order 12044 on improving government regulations and the Secretary of Transportation's internal memorandum on the same subject originally published in the Federal Register on March 8, 1978, (43 FR 9582), the Materials Transportation Bureau has developed a Regulatory Review and Development Plan. The second annual Plan, as was the first, is based on the premise that a system for setting the MTB's priorities in rulemaking activities is essential if MTB is to effectively carry out its mission to protect the nation against the risks inherent in hazardous materials transportation.

The Plan serves two purposes. It provides a framework to identify and analyze the complex safety problems and issues associated with hazardous materials transportation. It also serves as the Bureau's primary internal regulatory development and resource management tool. The Plan enables MTB to efficiently establish priorities for processing each of the many substantive petitions, proposals and recommendations for rulemaking actions which it annually receives concerning hazardous materials.

The Plan, therefore, provides RSPA management with a system for allocating resources and selectively intervening in those areas which in its best judgment can make the greatest contribution to public safety.

The order of priority in rulemaking is a function of the goals and objectives of the program.

The Safety Program Goals are:

(1) To facilitate hazardous materials transportation in a manner to adequately protect the nation against the risks of life, health and property;

(2) To reduce the numbers of accidents, injuries and fatalities in hazardous materials transportation; and

(3) To minimize the public exposure to risk of both high and low consequence accidents in hazardous materials transportation.

In order to achieve the Bureau's safety program goals, a number of objectives have been established. To the greatest extent possible, we intend to:

(1) Simplify and improve the quality of existing and new regulations;

(2) Insure compatability between U.S. and International safety standards in transportation;

(3) Develop and implement, a phased program to convert technical standards to performance oriented standards, where feasible, especially in the area of hazardous materials packaging;

(4) Reduce the actual impacts - e.g., size, spread, etc. - of a hazardous materials release or spill; and

(5) Minimize the population and property exposure to potentially high shipments.

Based upon these considerations, the current ordering among the major safety programs for hazardous materials is as follows:

Cargo Tank Safety and Integrity (highway)

Tank Car Safety and Integrity (rail)

Hazardous Materials Emergency Response/Communications

Radioactive Materials Transportation

Hazardous Materials Classification

Portable Tank Safety and Integrity

Modal Operations Safety (Rail/Highway/Water/Air)

Packaging Safety and Integrity

The top two program areas have rulemaking priority because of the relatively high number of fatalities, injuries, and property losses that are involved with these accidents relative to the other hazardous materials safety program areas. Cargo Tank Safety has assumed the highest priority because MTB has recently completed a major rulemaking action designed to significantly improve Tank Car Safety -- which is expected to appreciably reduce both the severity and the frequency of rail tank car accidents.

The regulations adopted under Docket HM-144 in the rule published on September 15, 1977 required tank car owners to equip DOT Specification 112

and 114 tank cars with 3 protection systems: 1) tank head protection against puncture; 2) top and bottom shelf couplers to resist disengagement; and 3) thermal protection for those cars used to transport flammable gases to prevent overheating of product. All cars built since 1/1/78 are required to be equipped with the required protective devices. The requirement for retrofit of existing tank cars originally provided that shelf couplers be installed not later than 6/30/79, and that the balance of the retrofit be completed by 12/31/81. However, several serious accidents involving pressure tank cars prompted the Department to reconsider the retrofit timetable. As a result, shelf couplers were required to be installed not later than 12/31/78. That task was completed on schedule with few exceptions. The new timetable also requires that all tank head protection and thermal protection be installed not later than 12/31/80. Further, for certain cars the final deadline is the end of this year, depending on the retrofit package employed. A compliance reporting system, developed by MTB and FRA is providing quarterly status checks on the progress of the retrofit and all indications point to the successful completion of the program without significant interruption in essential transportation service.

Therefore, even though simplification, clarification and uniformity have been important regulatory concerns, the primary factor in establishing rulemaking priorities and plans is the requirement for safety to life and property.

As a result of this system of assigning priorities, we have found that rulemaking actions which are designed to enhance emergency response capabilities assume a high priority. Included under this heading are rulemaking actions which are designed to strengthen the communication of hazardous materials information in pre- and post-accident environments;

thus, rulemaking actions that cover shipping papers, labeling and marking requirements are a part of this major program area.

Next in order of priority is the transportation of radioactive materials - which have had an excellent safety record in transportation, but about which there is considerable concern, because of the serious effects that would result in the extremely unlikely event that there was a major release in an accident.

Although we believe this year's plan to be a realistic statement of essential MTB rulemaking activities and resource commitments for the forthcoming year, allowances must be made for regulatory projects not contemplated at the time of preparation.

INTERNATIONAL AND INTERAGENCY COOPERATION.

In addition to discharging program responsibility to facilitate intermodal and multimodal shipments in commerce through its Transportation Programs Bureau, the RSPA participates in the development of international hazardous materials transport standards in order to assure a uniform acceptance of United States hazardous materials transportation practices which experience has shown to be safe and reliable. The United States objective has been to promote a world-wide system that provides necessary consistency between modal and regional recommendations to insure that, insofar as practical, hazardous materials shipments may move freely between the various modes and regions of the world in full compliance with the applicable regulations.

Department of Transportation personnel participate actively with e United Nations Economic and Social Council's Committee on Experts on the Transport of Dangerous Goods, in developing international standards for identifying hazardous materials and communicating their hazards.

The United States, in the past, sponsored a number of proposals, including recommended criteria for the classification of liquids presenting toxic risks in transport as a result of their volatility, and a proposal for standard world-wide requirements pertaining to documentation, marking, labeling, and placarding of dangerous goods in international commerce. The Department of Transportation participates with other international governmental "specialized" agencies, such as the Intergovernmental Maritime Consultative Organization, and the International Civil Aviation Organization, which primarily develop recommendations of an operational nature to insure safety transportation of the hazardous materials by the involved mode of transportation, and the International Atomic Energy Agency which develops international standards for transport of radioactive materials.

On the domestic front over the past year, we have seen improved lines of communication and cooperation between the MTB and both the Environmental Protection Agency (EPA) and the Nuclear Regulatory Commission (NRC).

A Memorandum of Understanding (MOU) between DOT and the NRC is expected to be signed next month to control overlapping responsibility on regulating the transportation of radioactive materials. It will basically continue the former MOU that the agencies now have over control and expertise of shipments of radioactive substances. The DOT will continue its jurisdiction over packaging of smaller quantities and transportation of all quantities of radioactive materials and the NRC will continue its jurisdiction over packaging and safety standards pertaining to fissile materials and other than small quantities of most other radioactive materials.

A MOU between the DOT and the EPA as to enforcement authority over hazardous substances and wastes is presently in the final stages of

development and is expected to be signed within the coming months. The Bureau is also working closely with the EPA in the promulgation of regulations on hazardous substances and hazardous wastes over which both agencies have jurisdiction.

BETTER INCIDENT DATA.

MTB's centralized reporting system is the Department of Transportation's primary source of hazardous materials "incident" data. For reporting purposes, an incident is defined as any unintentional release of hazardous materials, ranging from a spill of a small quantity of paint, battery acid, or other less hazardous materials to major vehicular accidents involving hazardous materials release resulting in fire or explosion. It should be noted, as pointed out previously, that an increase in ported incidents may in large part be attributed to increased industry awareness of DOT reporting requirements, as well as general increase in quantity of hazardous substance shipments. Thus, during 1978, carriers reported 18,022 incidents, a 19 percent increase over the 15,954 incidents reported in 1977.

There is no such thing as an "acceptable" degradation in safety; the ideal, of course, is a "zero" accident experience. However, some risk of accidents in hazardous materials transportation is unavoidable. While there has been a progressive increase in hazardous materials accidents and reported incidents over the years, reported deaths and injuries have been relatively stable in recent years. There was, unfortunately, a sharp increase in deaths and injuries during the winter of 1977-78 as esult of two major accidents involving rail tank cars carrying compressed liquid gases.

ENFORCEMENT ACTIVITIES.

Enforcement activities of the Department are also a key to the promotion of safety through deterrence of noncompliance with the regulations. The application of legal sanctions in the area of hazardous materials transportation has recently significantly increased, particularly by the Federal Railroad Administration and the Materials Transportation Bureau.

In January 1977, the Bureau reissued the hazardous materials regulations under the authority of the HMTA, thereby providing civil penalty authority and increased criminal sanctions. During that same year, the regulations prescribing the Materials Transportation Bureau's enforcement procedures under section 110 of the HMTA became effective. In September, the Bureau started initiating civil penalty actions for violations by container manufacturers and shippers. As a result, 13 penalties totaling $17,850 were assessed and collected and 1 compliance order and 42 warning letters were issued.

The 1977 Congressional authorization and appropriation allowed us to add an additional three inspectors and secretary to the staff of four inspectors and one secretary during 1978.

Because of the greater emphasis on enforcement of MTB in 1978, 32 cases were initiated, 23 cases were completed with penalties collected totaling $45,050. In addition, 2 compliance orders were issued and 61 warning letters, an increase over the previous year.

Assessed penalties have ranged over the last two years from $200 to $9,000. Representative examples of the violations include a drum reconditioner's failure to properly retest and mark a non-DOT specification drum as a qualified container; a corrugated fiberboard box manufacturer's failure to construct a box in accordance with the DOT specification marked on it; a shipper's failure to properly describe a material on the

shipping paper, or to mark containers properly, or to use containers meeting the required DOT specifications; and a shipper's reuse of a non-reusable compressed gas cylinder.

In 1978, the Department of Transportation had 226.6 work-years available for the hazardous materials compliance enforcement program. Safety inspectors conducted a department-wide total of 26,190 inspections of facilities, 67,130 inspections of transport vehicles, and 5,154 accident investigations.

At present only the Federal Highway Administration has cooperative agreements, all of a voluntary nature, with State agencies in regard to enforcing the Federal hazardous materials regulations. However, as local and State authorities become more interested in regulating transportation of hazardous materials through their jurisdictions, the relationship between Federal and State regulatory agencies may create burdensome, even dangerous, inconsistencies which must be addressed in a systematic fashion.

In enacting section 112 of the Hazardous Materials Transportation Act, the Congress adopted the principle of Federal preemption in order to preclude a multiplicity of State and local regulations and the potential for varying, as well as conflicting, regulations in the area of hazardous materials transportation. The Materials Transportation Bureau has implemented regulations under 49 CFR Part 107 which provide for preemption by the Secretary of any requirements of a State or political subdivision which are not consistent with requirements promulgated under the Act. Further provisions are made for petitions to the Department by States or political subdivisions to continue in force any requirements which have been determined to be not consistent, provided that it can be shown such

requirements do not unduly burden commerce. In this manner, we have established a mechanism for resolving or accommodating many of the differences that exist or are likely to arise between Federal and State or political subdivision requirements.

There are four requests pending for administrative opinions docketed under these procedures. The State or local requirements being considered involve highway or rail transportation of LPG and/or LNG. The one completed administrative opinion involved a 1976 New York City ordinance which forbade the transportation of most radioactive materials within its boundaries.

In that instance, in April 1978, the Bureau issued, in response to a petition from a Long Island highway shipper, an administrative opinion concerning preemption of the city ordinance under the Act. Although that opinion stated that the New York City code is not inconsistent with the requirements of the HMTA or regulations issued under it to date, the opinion does not preclude the possibility that other Federal statutes may, in fact, preempt the ordinance. The ruling recognized that there may be a need for prescribing routing requirements for highway carriage of radioactive materials. And in August 1978, the Bureau issued an Advance Notice of Proposed Rulemaking to solicit public comments to aid in the decision as to whether DOT should designate highway routing requirements for radioactive materials.

Of course, State and local ordinances are prompted by concerns for the safety of their citizens. But it is also the Department of Transportation's responsibility, as mandated by the Congress, to ensure safety to life and property while not impeding the flow of hazardous materials in commerce.

TRAINING.

State adoption of Federal interstate hazardous materials regulations for application to intrastate traffic will continue to be encouraged in lieu of ad hoc requirements. Federal training assistance for State regulatory and emergency response personnel will continue to be supported in the future. Our safety program consists not only of regulation, inspection, and enforcement, but also education and training of those involved in shipping, handling, or carrying as well as regulating hazardous materials. Available training and related resources will concentrate on developing and preparing materials for delivery by regulated industries, educational institutions and other governmental bodies.

The Transportation Safety Institute, within the Program Bureau of RSPA, develops and provides indepth training for industry personnel, as well as Departmental inspectors, concerned with hazardous materials regulations compliance. The Materials Transportation Bureau and the operating administrations conduct additional training sessions and routinely participate in private industry sponsored training programs. Additionally, we maintain approximately 30 fact sheets and pamphlets on the handling of hazardous materials and in 1978 estimated distribution was 1 million items in response to over 8,000 requests.

EMERGENCY RESPONSE.

"Containment" regulations are not enough to prevent accidents and any resulting displacement of people. Department of Transportation personnel and the concerned transportation industry must devote more attention not only to training, but also to providing the technical information necessary to plan for and respond to hazardous materials transportation emergencies when they do occur.

Assistance of various types is generally required of, and often provided by, the shippers, nearby industries, and military organizations

in amelioration of spills. An ever increasing number of local jurisdicti are, as a part of cooperative community emergency response planning, attempting to provide for handling and containment of spills. However, availability of resources at the local level is a continuing problem and, additionally, there is a need for better guidelines to enable local action in developing such plans. In partial response to this need, during 1978, the Transportation Safety Institute held 23 emergency services workshops, attended by nearly 1,205 emergency services personnel and State training officials. In addition, the MTB is about to issue a revised and expanded 1979 edition of the Emergency Action Guide for Selected Hazardous Materials. The manual outlines the hazards of certain hazardous materials most frequently transported in bulk and contains technical information which will help emergency personnel during the first 30 minutes following a spill involving volatile, toxic, gaseous and/or flammable material shipped in bulk. General and specific safety procedures to follow are provided in spill guides arranged alphabetically by hazardous material. This manual has been revised and reprinted a number of times since its development in 1973 and over 800,000 copies have been distributed.

Section 109(d)(2) of the Hazardous Materials Transportation Act requires the Department of Transportation to establish and maintain a central reporting system and data center to provide law enforcement and fire fighting personnel with advice on meeting hazardous materials transportation emergencies. The Manufacturing Chemists Association's CHEMTREC system has provided a 24-hour centralized hazardous materials emergency response capability which generally had filled this need. However,

recent events have made it evident that greater Federal government participation to supplement CHEMTREC was desired and needed by State and local governments, the public and industry.

TASK FORCE ON HAZARDOUS MATERIALS PROGRAM.

The Department's effectiveness in regulating the transportation of hazardous materials was recently reviewed by a Department task force which made 6 recommendations endorsed by the Secretary. The first recommended establishment of a Standing Committee for coordinating DOT hazardous materials transportation programs. The Standing Committee, composed of key DOT officials, was established and is chaired by me as the RSPA Administrator.

Another plan enunicated by the task force is to develop and establish a National Hazardous Materials Response Center by expanding the existing U.S. Coast Guard National Response Center. This center would maintain a 24-hour response capability to assist local enforcement authorities in combatting hazardous materials incidents.

The purpose of the National Hazardous Materials Response Center would be to maintain a free communication network which could notify appropriate Federal, State and local officials of a hazardous material accident, and through the use of existing industry mechanisms (i.e., CHEMTREC), provide immediate instructions on the technical actions needed to mitigate the effects of the incident.

The additional 4 recommendations endorsed by the Secretary are:

- Continue efforts to make EPA and DOT regulations as com patible as practicable; continue accelerated regulatory efforts in the area of liquefied energy gases, hazardous information number systems; and determine if performance

standards could be established in lieu of design standards.

- Analyze the civil and criminal penalty system in the Department to determine if penalties for violation of the hazardous materials regulations are logical and fair.
- Establish a centralized hazardous materials information system.
- Design a training program for part-time and voluntary emergency service personnel.

In addition as we reported last year, the Materials Transportation Bureau contracted with the National Fire Protection Association for the development of a comprehensive training course for emergency response personnel. The 20-hour course stresses the importance of defining the roles and responsibilities of the various concerned response groups and places particular emphasis on communication and command considerations. In addition, the course presents a general overview of hazardous materials transportation, characteristics and classification of materials, sources of technical assistance, and situation analysis and decision-making. Perhaps its most important feature is its guidelines for use by local fire departments and police departments in their development and implementation of their own community emergency response plans. Over 1,500 sets have now been distributed. A copy of the program has been offered to each State Governor at no cost.

MTB participates in the Department of Transportation's work on an Interagency Task Force which is studying the question of an appropriate liability and compensation scheme for hazardous substances and other hazardous commodities. The DOT is joined under the leadership of the Department of Justice, by the Environmental Protection Agency, the Department of Interior, the Council on Environmental Quality, the Department of State and the National Oceanic and Atmospheric Administration. The

DOT has taken a very active role in urging that the study scope include not only designated hazardous substances but also all hazardous materials. An initial study result is expected within the next month.

I would like to conclude my remarks by commenting on our proposed hazardous materials authorizations bill.

The proposed bill would amend section 115 of the Hazardous Materials Transportation Act to authorize the appropriation of $4,351,000 for fiscal year 1980, the amount projected in the President's budget request. We believe this amount is appropriate for the program as planned, based on a thorough review using the zero-based budgeting process of assessing objectives and impacts of various funding levels.

The Administration, as reflected in our proposal has requested authorization for such sums necessary to carry out responsibilities under the Act for 1981. If the Committee desires that specific annual amounts be authorized for each of these years, we believe the level should provide sufficient latitude to meet both foreseeable program needs and any unanticipated requirements which might arise based on events.

This completes my statement, Mr. Chairman. I will be happy to answer any questions the Committee may have.