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HAZARDOUS MATERIALS TRANSPORTATION ACT
AMENDMENTS

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AMENDMENTS

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JOINT HEARING
BEFORE THE
SUBCOMMITTEE ON SURFACE TRANSPORTATION
AND
SUBCOMMITTEE ON AVIATION
OF THE
COMMITTEE ON
PUBLIC WORKS AND TRANSPORTATION
HOUSE OF REPRESENTATIVES
NINETY-SIXTH CONGRESS

FIRST SESSION

ON

H.R. 3502

TO AMEND THE HAZARDOUS MATERIALS TRANSPORTATION
ACT TO AUTHORIZE APPROPRIATIONS FOR FISCAL YEARS
1980 AND 1981

MAY 7, 1979

Printed for the use of the Committee on Public Works and Transportation



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CONTENTS

H.R. 3502: To amend the Hazardous Materials Transportation Act to authorize appropriations for fiscal years 1980 and 1981	Page 2
---	-----------

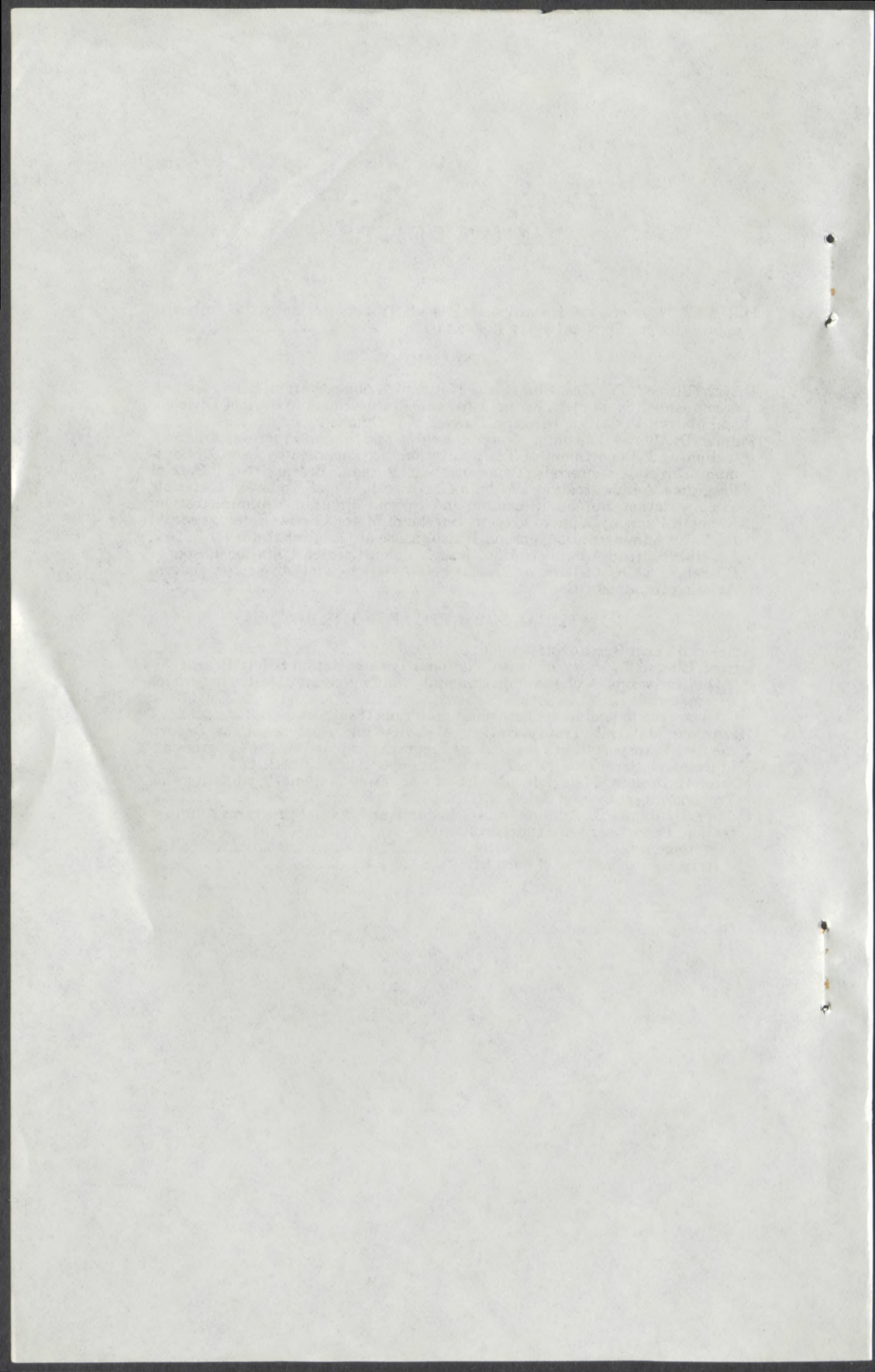
TESTIMONY

Driver, Elwood T., Vice Chairman, National Transportation Safety Board; accompanied by Ludwig Benner, Jr., Chief, Hazardous Materials Division; and Martyn V. Clarke, Director, Bureau of Technology	117
Palmer, Dr. James D., Administrator, Research and Special Programs Administration, U.S. Department of Transportation; accompanied by Leon D. Santman, Director, Materials Transportation Bureau, Research and Special Programs Administration; William J. Driscoll, Chief Counsel, Materials Transportation Bureau, Research and Special Programs Administration; Kenneth Pierson, Deputy Director, Bureau of Motor Carrier Safety, Federal Highway Administration; Joseph Walsh, Associate Administrator for Safety, Federal Railroad Administration; Joseph Valenti, Chief, Pollution Response Branch, U.S. Coast Guard; and Edgar Fell, Aviation Safety Inspector, Federal Aviation Administration.....	3

MATERIAL SUBMITTED FOR THE RECORD

American Farm Bureau, statement	103
Driver, Elwood T., Vice Chairman, National Transportation Safety Board: Quarterly report of the departmental standing committee on hazardous materials	126
Open recommendations hazardous materials transportation.....	135
Hazardous Materials Transportation: A Review and Analysis of the Department of Transportation's Regulatory Program (prepared by the Congressional Research Service of the Library of Congress, April 1979)	*
Marine-Hazardous Materials, Report of the First National Symposium on Transportation System Safety	107
Palmer, Dr. James D., Administrator, Research and Special Programs Administration, Department of Transportation: Statement	4
Responses to additional questions	31

*Retained in Subcommittee file.



HAZARDOUS MATERIALS TRANSPORTATION ACT AMENDMENTS

MONDAY, MAY 7, 1979

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON SURFACE TRANSPORTATION,
SUBCOMMITTEE ON AVIATION,
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION,
Washington, D.C.

The subcommittees met, pursuant to notice, at 1:36 p.m., in room 2167, Rayburn House Office Building, Hon. Glenn M. Anderson (chairman of the Subcommittee on Aviation) presiding.

The CHAIRMAN. The Subcommittees on Aviation and Surface Transportation are holding this joint hearing on an authorization request as set forth in H.R. 3502, a bill to amend the Hazardous Materials Transportation Act to authorize appropriations for fiscal years 1980 and 1981.

The 1980 request is for \$4,351,000, and for 1981, is such sums as necessary. I note that the request is less than the amount that was authorized for fiscal year 1979.

Personally, I believe that safety is a key issue and involves the well-being of all of our citizens. I therefore wonder if there is wisdom in requesting less funds to carry out an important safety program of the Federal Government. The hazardous materials safety program regulates the handling, packaging, and transportation of hazardous materials in interstate commerce. It is an important task and one that certainly must be properly carried out. My main concern is that there are sufficient funds available to do that. That is the question that the subcommittees will determine during the course of these hearings.

Surface Transportation Subcommittee Chairman Howard is detained, and Aviation Subcommittee Chairman Anderson is on his way.

I ask that H.R. 3502 be placed in the record at this point. Is there objection?

[No response.]

The CHAIRMAN. The Chair hears none.

[The information follows:]

96TH CONGRESS
1ST SESSION

H. R. 3502

To amend the Hazardous Materials Transportation Act to authorize appropriations for fiscal years 1980 and 1981.

IN THE HOUSE OF REPRESENTATIVES

APRIL 5, 1979

Mr. STAGGERS (by request) introduced the following bill; which was referred jointly to the Committees on Interstate and Foreign Commerce and Public Works and Transportation

A BILL

To amend the Hazardous Materials Transportation Act to authorize appropriations for fiscal years 1980 and 1981.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That section 115 of the Hazardous Materials Transportation
4 Act (49 U.S.C. 1812) is amended—

5 (1) by striking out “and” after “1978,”; and

6 (2) by inserting immediately before the period at
7 the end thereof the following: “, not to exceed
8 \$4,351,000 for the fiscal year ending September 30,
9 1980, and such sums as are necessary for the fiscal
10 year ending September 30, 1981”.

The CHAIRMAN. We are now ready to hear from Dr. Palmer and his people. If you would introduce your people, Dr. Palmer, we would appreciate it very much.

Dr. James D. Palmer is the Administrator of the Research and Special Programs Administration, Department of Transportation.

TESTIMONY OF DR. JAMES D. PALMER, ADMINISTRATOR, RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION, DEPARTMENT OF TRANSPORTATION, ACCOMPANIED BY LEON D. SANTMAN, DIRECTOR, MATERIALS TRANSPORTATION BUREAU, RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION; WILLIAM J. DRISCOLL, CHIEF COUNSEL, MATERIALS TRANSPORTATION BUREAU, RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION; KENNETH PIERSON, DEPUTY DIRECTOR OF THE BUREAU OF MOTOR CARRIER SAFETY, FEDERAL HIGHWAY ADMINISTRATION; JOSEPH WALSH, ASSOCIATE ADMINISTRATOR FOR SAFETY, FEDERAL RAILROAD ADMINISTRATION; JOSEPH VALENTI, CHIEF, POLLUTION RESPONSE BRANCH, U.S. COAST GUARD; AND EDGAR FELL, AVIATION SAFETY INSPECTOR, FEDERAL AVIATION ADMINISTRATION

Dr. PALMER. Thank you very much Mr. Chairman. With me on my left at the table is Mr. Lee Santman, who is the Director of the Materials Transportation Bureau, Research and Special Programs Administration. Joining me for any questions you might have in specific detail from one of the modal administrations are Mr. Joseph Walsh, Associate Administrator for Safety, Federal Railroad Administration; Kenneth Pierson, Deputy Director of the Bureau of Motor Carrier Safety, Federal Highway Administration; Edgar Fell, Aviation Safety Inspector, Federal Aviation Administration; Commander Joseph Valenti, Chief, Pollution Response Branch, U.S. Coast Guard.

The CHAIRMAN. Dr. Palmer, I am going to interrupt your presentation for the moment to allow Aviation Subcommittee Chairman Anderson to assume the Chair.

[Whereupon, Mr. Anderson assumed the Chair.]

Mr. ANDERSON. Thank you, Mr. Chairman. I am pleased to participate in these joint hearings. The Aviation Subcommittee has a special interest in this subject. As a result of the cargo deregulation bill which we passed 18 months ago, air cargo service is becoming more widely available. I expect that the convenience of air transportation will be attractive to shippers of hazardous materials, and as a result, there will be an increase in the use of air transportation carrying hazardous materials, and this transportation creates special risks.

Some cargo is carried in an aircraft which also carries passengers, and there must be adequate safeguards to protect passengers from accidents resulting from improperly packaged or improperly stowed hazardous materials. Even when all cargo aircraft are used, hazardous materials pose a great risk to airline pilots and flight crews. An airplane cannot simply stop and evacuate when an emergency arises. Indeed, when a plane is over water, it could be hours, if an emergency starts, before it could be possible to land.

For these reasons, Mr. Chairman, the Aviation Subcommittee has a strong interest in the transportation of hazardous materials, and we look forward to participating in these hearings.

Dr. Palmer, we do have your prepared statement; it will be made a matter of the record. You can read it, extemporize it, or as you wish.

[Statement referred to follows:]

STATEMENT OF DR. JAMES D. PALMER, ADMINISTRATOR OF THE RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

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 packing 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 compatibility 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 comments 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 the 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 reported 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 a result 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 jurisdictions 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 pro-

grams. The Standing Committee, composed of key DOT officials, was established and is chaired by me as the RSPA Administrator.

Another plan enunciated 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 compatible 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.

Dr. PALMER. Thank you very much, Mr. Chairman. If I might, I would let my testimony stand for the record and go through some extemporaneous comments relative to the authorization for the hazardous materials program in DOT.

I wish to thank you very much for the opportunity to appear before you to present the authorization request for the continued

implementation of the Hazardous Materials Transportation Act of 1974.

It is a little over a year since MTB appeared before this committee and, as last year, this year we also find ourselves in the aftermath of serious incidents. The fortunate difference that we have today is that the rail accident at Crestview, Fla. did not result in loss of life, although there occurred heavy loss of property; nor did the movement of the nuclear material from Three Mile Island result in any release as far as transport of that material was concerned.

Perhaps the most notable aspect and change since we last appeared before you, has been the early, appropriate, and reasonable role of proper DOT personnel to carry out their responsibilities in regard to hazardous materials.

If I might just speak briefly to the role of DOT in the Crestview rail incident to indicate the change that has occurred in a period of 1 year, it might be instructive to us as we project DOT's continuing interest and efforts in this area.

The derailment that occurred in Crestview, Fla. occurred at 8:05 central standard time, which would have been 9:05 eastern standard time, on April 8, 1979. The first call that came forward was recorded at 9:40 eastern standard time, and that came to the National Response Center of the U.S. Coast Guard. This, in and of itself, presents us with a situation that has improved from last year, in that the Federal Government has expanded the National Response Center for accidents of hazardous materials. The Coast Guard is now manning on a 24-hour basis the National Response Center, and coordinates information with such industry-authorized response agencies as Chemtrec and Clorep (phonetic).

It is our judgment that this development has been most effective in providing a quick response on behalf of the Federal Government, and that we, in fact, have cooperated quite well with the industry organizations.

To follow up when the train accident occurred, the people on the site first from the Federal Government were from the Federal Railroad Administration and from the Environmental Protection Agency. The on-the-site coordinator initially was the fire chief and the local civil defense director. The fire chief had the manifest from the train, so that the Federal requirement that these lists be available was complied with. However, the jumble of cars prevented him from determining just exactly what the situation was in terms of which cars were in what part of the wreck. He requested and received a U.S. Air Force Reserve over-flight, picture-taking operation, which he then analyzed on a quick turn-around basis, and then called Chemtrec to find out the shippers of the chemicals and the emergency response that they recommended. And that operation, in fact, did work.

We feel that this is the beginning of a more appropriate Federal role in the response to hazardous material accidents as they occur, and that this, in fact, does augur well for the future.

The second incident that has occurred in recent days that involved DOT, at least in a peripheral sense, has been the Three Mile Island incident. Here, DOT had a particular kind of role, in that

we are responsible for reviewing and approving with the local and State representatives an emergency transportation plan.

At the Three Mile Island site, the DOT regional emergency transportation coordinator was present just after the incident occurred and was available, as was a national transportation coordinator, to assist in any way that the State felt proper in carrying out whatever evacuation plans it might have. So our people were there early to provide whatever emergency transportation assistance that was appropriate from the Federal Government, recognizing that it was, after all, the responsibility first of the State and the Nuclear Regulatory Commission to carry out whatever immediate action was necessary. But our people were there in response to the need and were available to assist.

In the aftermath of the Three Mile Island incident, our people were also there to assist in the transport of the nuclear radioactive materials from unit No. 1, which was in shut-down status and in the process of having its resins removed anyway, and we attempted to facilitate this particular movement so that there would, indeed, be a place to store materials from the damaged unit No. 2 as necessary.

So we feel that our ability to respond to emergencies as they have come about has improved considerably over the past year, and we expect this trend will continue.

As we look at the extent and nature of the movement of hazardous materials and see the number of shippers, the number of suppliers of tanks and cylinders, as we look at the amount of material moving, it gives some notion of the extent of the area of concern.

Looking at the hazardous material industry, there are over 20,000 suppliers of packagings of all kinds that provide trucks, rail cars, barges, ships, and so forth, with a means to transport hazardous material. We have determined that there are over 4,000 locations from which bulk shipments originate, and some 100,000 locations from which shipments in portable containers originate.

In looking at the numbers of vehicles and vessels in the United States that are regularly transporting hazardous materials in bulk, we find that it ranges from 100 bulk tankers to well over 400,000 tank trucks of all kinds. Additionally, we have some 700,000 vehicles and vessels that are regularly engaged in transporting portable containers of hazardous materials.

As we look at the volume of material that is moving, there is well over 200 billion ton miles of hazardous materials transported annually, with the largest number of ton-miles being for gasoline and jet fuel, followed by distillate fuel oils of all kinds, and then by anhydrous ammonia and liquid petroleum gas.

We have, over the period of several years, kept statistics on the safety record of the movement of hazardous materials, and we have an incident reporting system, of which you are aware, and it is our judgment that that incident reporting system, as it becomes better known and as more and more companies provide information into that system, will receive better information about incidents that involve the unintentional release of a hazardous material.

The situation that we have seen developing in recent years has been an increase in the reporting of the number of incidents where

unintentional release of hazardous materials has occurred. We have watched, since 1971, that number grow from about 2,200 reported incidents to some 18,000 reported in 1978, and we feel that much of that is due to the increased interest of the shipper in reporting incidents, as they are required to do. We also feel that we are getting good information on those incidents involving major property damage, fatality or injury.

With regard to fatalities and injuries over the past several years resulting from hazardous materials transportation, we find that the number of deaths, over an 8-year period up through 1978, has been 207. During the same time period, 5,271 persons have been injured.

Last year was a particularly traumatic year with the Waverly and Youngstown train accidents occurring and it reflects a rather marked increase over prior years in the number of fatalities and injuries that occurred.

If we look at this year through the first quarter by mode: to date there are no deaths related to movement of hazardous material by air, and the seven injuries that occurred were all in the month of January. In the highway area, we have some 4 fatalities and some 64 injuries; in the rail area, 48 injuries and no fatalities; and in water, no reported injuries or fatalities for the first quarter.

It would appear that the happenings of last year have had some residual impact upon the safety consciousness of those shipping hazardous materials, and if our record for the first quarter holds for the remainder of the year, indeed we will see a trend downward.

Finally, let me report to you the activities of MTB over the past year in the area of hazardous materials. Specifically, the Material Transportation Bureau has developed regulation that have codified and consolidated some of the exemptions provided in the past few years. We have withdrawn delegations to examine explosives from outside agencies. We have moved to standardize rules and regulations among the various modes, and we have done this as a requirement prior to issuing new regulations so that we might have a standard approach to regulations as they affect all of transportation.

The hazardous materials subjects have been prioritized for purposes of regulation writing, to regularize that procedure and to give you some indication of where we feel most the attention should be given. For this year, and perhaps for next as well, the highest priority item in terms of regulatory attention is cargo tank safety and integrity, and that has to do with truck transport. The second is rail tank car safety and integrity. The third is the hazardous materials emergency response and communications system, fourth is radioactive materials transportation; and fifth is hazardous materials classification. There will be other areas receiving attention as we go along and develop the priorities for MTB to carry out its work.

The other notable thing that has occurred during this past year has been the effort on the part of the Secretary of Transportation to address the issue of hazardous materials transportation. Specifically, the Secretary impaneled a task force last spring, and that task force reported out to him in September of 1978 six recommen-

dations. The situation with regard to each of the recommendations is that all of them are in the process of being addressed; some have been completed; the others are in various stages of completion.

The specific recommendations were that the modal administrators form a standing committee to address issues related to hazardous material movement, and that has been done. The modal administrators meet at least on a quarterly basis, and their top level assistants have formed a working group and they meet no less than monthly to develop programing changes and recommendations in the area of hazardous material movement.

The Secretary instructed us to develop a hazardous material information system. That has been initiated, and that work is in process, and the plan for the development of this system has been approved and will be carried out over the next several months.

In the area of penalties, we have a varying record as to the size and number of penalties assessed by the modes, and the Secretary has instructed the general counsel to review penalty procedures and to make a recommendation to the Secretary to insure fairness and uniformity in carrying out penalties under the Hazardous Materials Transportation Act.

The Secretary has instructed the Coast Guard to implement a National Response Center for hazardous materials. This is being done, and a staffing requirement has been presented to the standing committee by the Coast Guard; this will be acted upon at its next meeting within 2 weeks. It is our intent to support the Coast Guard's staffing needs in order to provide permanent watch-stander positions to take care of additional hazardous materials incidents as well as the oil spill incidents and certain hazardous materials incidents currently reported to the National Response Center.

I think, Mr. Chairman, that brings us up to date on the activities of the Department with respect to hazardous materials, and I would stop there and be pleased to answer any questions you might have.

Mr. ANDERSON. Thank you, Doctor. I have several questions on your program of inspection of shipments of hazardous materials by air.

First, do you have any data on the percentage of total shipments by air that are inspected?

Dr. PALMER. In the FAA, in 1978, we inspected some 6,500 shipments.

Mr. ANDERSON. Out of how many would that be; what percentage are we talking about?

Dr. PALMER. I would judge that, based on the prior year, to be something a little less than one-half of all of the actual shipments that are made.

Mr. ANDERSON. There were about 13,000 shipments, then?

Dr. PALMER. That seems to be the number.

Mr. ANDERSON. And you inspect about half of these?

Dr. PALMER. That is correct.

Mr. ANDERSON. Do you agree with the conclusion reached by the Government Operations Committee in 1976 that the FAA relies upon the honor system, a voluntary shipper compliance with the regulations?

Dr. PALMER. Certainly that is true in part. The other parts of it are that we have very strong regulations for the packaging of such materials, and we have an ongoing inspection program that validates the honor program.

Mr. ANDERSON. Do you think the honor system is satisfactory in something as, in a sense, dangerous as this?

Dr. PALMER. I think that the combination of the honor program, the inspections that are ongoing, and the increased activity of DOT in performance standards for packaging does, in fact, address that in a viable way.

Mr. ANDERSON. Do you find that any of the industries, or any portion of them, take advantage of an honor system? Are there people, in other words, who expect you to sort of let them get by the board on many things?

Dr. PALMER. Not to my knowledge.

Mr. ANDERSON. Are all inspections by the FAA conducted by full-trained inspectors?

Dr. PALMER. Yes, sir.

Mr. ANDERSON. Is there a standardized training program for FAA inspectors, and how often is their training updated?

Dr. PALMER. There is a standardized training program that is operated by the Transportation Safety Institute in conjunction with the FAA. I would like to ask the gentleman from the FAA to speak to that specifically.

Mr. ANDERSON. Fine, fine. Please identify yourself and who you are with.

Mr. FELL. Yes, sir. I am Ed Fell, with the Federal Aviation Administration.

We do have two courses——

Mr. ANDERSON. Your name is?

Mr. FELL. Ed Fell, F-e-l-l.

Mr. ANDERSON. And your position?

Mr. FELL. Aviation Safety Inspector, Air Carrier Division.

Mr. ANDERSON. OK.

Mr. FELL. We have two courses that are offered at the Transportation Safety Institute. One is a basic course which initially trains the inspector on how to do an inspection and about the hazardous material regulations, and then there is an advanced course after the initial course has been offered which we try to get all our inspectors to. I cannot give you any number as to how many have attended that course, however.

Mr. ANDERSON. Well, would they not all have to attend; would not all inspectors have to attend?

Mr. FELL. Eventually. I cannot give you a number of how many have been trained to date. This advanced program was just put into the system about a year ago, I believe.

Dr. PALMER. All of them have had the basic course. The advanced course was proposed by FAA and installed by the Transportation Safety Institute not quite a year ago.

Mr. ANDERSON. So we could assume that within a year or two at the longest, every inspector would have had the advanced training as well as the basic?

Dr. PALMER. That is the goal.

Mr. ANDERSON. Now, how often is this training course updated?

Mr. FELL. Are you talking about a recurrent training program, sir?

Mr. ANDERSON. I am talking about catching up on new things that they were not worrying about before, because perhaps they did not know about them, or some new technique or some way that people are shipping things that they were not aware of before. In other words, how often is the training updated?

Mr. FELL. We have a recurrent training program that all our air carrier inspectors go to on at least an annual basis, aircraft training.

Mr. ANDERSON. So once a year you take a look at these and you try to update them at that time?

Mr. FELL. During that course on aircraft update, yes, we do get a recurrent refresher on hazardous materials.

Mr. ANDERSON. Since the advent of the deregulation of air cargo, which we assume will be a more specialized cargo shipment, has there been any change in the handling, in the way you handle inspections, because we assume that considerably more of the cargo is going to be handled in planes where there are no passengers.

Is there a difference, for example, between the training and the course you have for people who are handling just cargo planes and others who are handling planes where there is cargo and passengers?

Mr. FELL. As of 2 years ago is all I can—I have been out of the hazardous materials business for a couple of years now, but as of 2 years ago, it was the same course for all our inspectors.

Mr. ANDERSON. You said that all of your inspectors are full time. The Library of Congress report that was prepared for Senator Cannon shows that there are only 18 full time, 109 part time. That would imply to me that they were not all full time.

Dr. PALMER. The 1978 figures for the FAA hazardous materials inspectors are 18 full time and 109 part time, resulting in 56.2 person-years of effort.

Mr. ANDERSON. What kind of training do these part-time people get?

Dr. PALMER. All of the inspectors——

Mr. ANDERSON. If there are only 18 full time, that, to me, is pretty thin. You could not even cover the major airports with 18, and so you are apparently depending for the most part on part-time inspectors. Now, what kind of training do these part-time inspectors receive?

Dr. PALMER. It is my understanding that all of the part-time inspectors have received the basic course and that they will get the advanced course as they are scheduled into the Transportation Safety Institute.

Mr. ANDERSON. I do not understand that. In other words, these 109 are working now, are they not, part time?

Dr. PALMER. That is correct. They are working full time, but only part time in the hazardous materials area.

Mr. ANDERSON. Would they not, then, be doing inspections without the advanced training?

Dr. PALMER. Some of them will be already trained, and some will be in the process, and others will be scheduled in, as Mr. Fell has indicated.

Mr. ANDERSON. Do you have any data on how many inspectors look at the actual contents of the shipment, as compared to looking only at the description of the contents in the shipping documents? In other words, you said you did 6,500 inspections out of 13,000. How many of those are actual contents inspections, or were they just taking the statement of the bill of lading or description by the shipper?

Dr. PALMER. I do not have an answer to that; if I might have FAA prepare a response for the record.

Mr. ANDERSON. Suppose a shipper gives an air carrier a shipment which does not comply with the regulations. If the carrier rejects the shipment, is the carrier obligated to notify the FAA that there has been a noncomplying shipment?

Dr. PALMER. Mr. Santman indicates to me that that is the subject of an outstanding rulemaking that is being processed at the present time.

Mr. ANDERSON. My next question, along the same line, is, does the carrier have the right to hold the noncomplying shipment? Is that also part of the thing you are working on?

Mr. SANTMAN. No. The rulemaking that we have goes solely to the proposition of the carrier reporting to the FAA any shipment that is received that does not comply.

Mr. ANDERSON. Prior to this rule, what did they do; they may or may not report it to you, is that it?

Mr. SANTMAN. They have an obligation under the existing regulations to reject any shipment that has obvious defects, where there are discrepancies in the shipping papers, or where they detect anything about the package that looks out of the ordinary. They are under an obligation to refuse to accept it.

We find that when they latch onto something that does not look right, they frequently do call the FAA inspector.

Mr. ANDERSON. Does the carrier have any right to hold the noncomplying shipment?

Mr. SANTMAN. Under our regulations, we make no provision for them seizing it or holding it. It is a matter between the shipper and the carrier, as it is in any other case of a package being offered for shipment. It is not a matter that we have either addressed in the past or are addressing in our current proposed rulemaking.

Mr. ANDERSON. Would it not help enforcement to place this duty on the carriers? Otherwise, the shipper can keep going to other carriers until he finds one willing to accept the shipment.

Mr. SANTMAN. Some carriers are not particularly interested in hanging onto a shipment, either, that appears to them to be an improper shipment. The shipper comes to the door and tenders a package for shipment; in some cases, the carrier, I would envisage, seeing that it was an improper shipment, would reject the shipment and not want to have it in their possession, or would not want to assume responsibility for it.

Mr. ANDERSON. So then he would go next door to the next shipper and try him out and if he says no, then they will go to the next one until they get a line that will ship it.

Mr. SANTMAN. That is one of the reasons why our training programs are aimed at air carrier personnel, as well as shippers, to be able to identify and detect those inproprieties.

Mr. ANDERSON. That is why we were wondering if the carrier should not have the responsibility to hold the noncomplying shipment until it complies. If there is a danger, you hate the thought of their moving until they got one, particularly the one that you were going to be flying in.

A report prepared for Senator Cannon by the Library of Congress shows that in 1977, the average civil penalty collected for violations of hazardous materials regulations in aviation was \$705. I am concerned that this level of penalty is much too low to serve as a deterrent, and I would appreciate your comments.

Dr. PALMER. That is one of the reasons why the Secretary directed us to study the enforcement and penalty policies and their implementation for DOT. We have issued a contract and we expect the results of that study to be available to us in October, and at that time a recommendation will go forward as to uniform handling of penalties to insure that the penalty assessed relates logically and fairly to the situation in which the violation occurred.

Mr. ANDERSON. I am not clear on this penalty situation, to start with. If somebody brings a package to an airline and they say it does not comply and it is not reported, how can there be a penalty? If they go next door and they turn them down, and then if the third or fourth one says, "OK, we will ship it," and it gets shipped, when does someone come in and call the FAA, and how does the penalty get assessed, in the first place?

Dr. PALMER. The penalty results from the violation of a regulation. As Mr. Santman indicated, we are in rulemaking on the issue that you raise. At present, until there was an acceptance of that shipment, there would not be a violation. Whenever the FAA finds a package of hazardous materials that has been offered for shipment by air and that package does not comply with the hazardous materials regulations, violation action is processed against the shipper. If an operator has accepted the package, an additional violation is processed against the operator for having accepted the shipment.

Mr. ANDERSON. How would you know there was if it was turned down by two or three airlines prior but no report was made to the FAA, and then it was shipped and went to the eventual destination? Who is going to know that there was a violation of the requirement?

Dr. PALMER. Well, generally, we would expect to pick that up through our inspection process, and that would be the way in which we would detect a violation.

Mr. ANDERSON. Anyway, you are trying to close the gaps on these?

Dr. PALMER. That is correct.

Mr. ANDERSON. I understand that when violations are detected against foreign air carriers, no civil penalties are imposed, but the case is turned over to the State Department. Is this correct, and what action has the State Department taken in these cases?

Dr. PALMER. I am afraid that I am not in a position to be able to answer that, Mr. Chairman. Maybe Mr. Fell would know.

Mr. FELL. Yes, sir, your statement is correct; it is sent to the State Department.

Mr. ANDERSON. It is turned over to the State Department. What action, then, has the State Department taken in these cases?

Mr. FELL. I could not give you any idea, sir.

Mr. ANDERSON. In other words, we do not know whether they tell them they cannot do it. Is there a penalty? Maybe they could try another airline and eventually get it in. What is the procedure if it goes to the State Department?

Mr. FELL. I have no idea what the State Department's procedures are in these cases.

Mr. ANDERSON. It would seem to me that we ought to find that out, too.

Dr. PALMER. We will submit that for the record, Mr. Chairman [The following was received for the record:]

When a hazardous material violation is encountered with a foreign-registered aircraft, the FAA develops an enforcement file. If the violation warrants legal action, the FAA materials are forwarded to State Department. State Department, in turn, transmits the information to its in-country mission which contacts the foreign government's aviation authorities and requests that appropriate action be taken by the foreign government.

Mr. ANDERSON. Does the MTB or the FAA exercise any control over air carriers' programs for training their personnel in handling hazardous materials, and are there any standards or guidelines for carrier programs and are these programs reviewed by the FAA? It is really three questions.

The first one is, does the FAA or MTB exercise any control over the air carriers' programs for training their personnel in handling hazardous materials.

Dr. PALMER. The answer is yes, FAA does indeed provide course material and training at the Transportation Safety Institute, and MTB does review the contents of what they are teaching. In fact, within the last 3 months, we have issued to the FAA from MTB a request that they update their course materials to be consistent with the latest technologies.

Before an operator can carry hazardous materials, he must present his hazardous materials manuals and training program to his certificate holding office for approval. These are reviewed by the part-time hazardous materials specialist who works with the operator until he is satisfied that the manuals and training program are adequate. The training program then receives initial approval. Final approval is obtained after the hazardous materials specialist has observed the operator's training courses and inspected the operator's performance relative to hazardous materials acceptance and handling. Review of the operator's hazardous materials training program is monitored periodically as are his other training programs.

[Information supplied for the record follows:]

SUPPLEMENTAL INFORMATION CONCERNING FAA TRAINING

The aviation portion of the hazardous materials program is designed to assure that hazardous materials carried by civil aircraft are authorized for carriage and properly packed, marked, labeled, and documented so that they may receive the handling appropriate to the hazard they present. To accomplish this program, the FAA included in Federal Aviation Regulations, rules requiring operators holding operations certificates under Part 135 and 121 to:

1. Have and maintain manuals which include procedures and instructions for:

a. Accepting shipments of hazardous materials to assure proper packaging, marking, labeling, shipping documents, compatibility of articles and instructions on their loading, storage, and handling;

b. Notification and reporting of hazardous material incidents; and

c. Notification of the pilot in command when there are hazardous materials aboard.

2. Obtain initial and final approval of, and provide a training program that ensures that each person assigned duties for the carriage and handling of hazardous materials is adequately trained to perform assigned duties.

3. Train every person who performs any assigned duties and responsibilities for the handling or carriage of hazardous materials at least once each 12 calendar months in the training program of 2 above.

4. Maintain a record of satisfactory completion of the initial and recurrent training given to crew members and ground personnel who perform assigned duties and responsibilities for the carriage and handling of hazardous materials.

The FAA enforcement program is designed primarily to inspect and survey the operator's Hazardous Materials Program to insure that it keeps packages that do not comply with the Hazardous Materials Regulations from entering the air transportation system.

The FAA's enforcement program has one full-time hazardous materials specialist assigned to Flight Standards Service in Washington, one full-time specialist assigned to the Pacific, Northwest, Rocky Mountain, Central, Southwestern, Great Lakes, Eastern, and New England Regional Offices and two full-time specialists assigned to the Western and Southern Regional Offices. Each of the 109 Air Carrier, General and Flight Standards District Offices has one inspector assigned part-time as the Office Hazardous Materials Specialist. Further, inspections are conducted by Flight Standards Operations, Maintenance, and Avionics Inspectors in both the air carrier and general aviation specialties as an adjunct to their normal work program.

The Transportation Safety Institute conducts two courses on the Air Transportation of Hazardous Materials, an initial course and a refresher course. All full-time and part-time Hazardous Materials Specialists must attend these courses. The remainder of the over 1,200 Flight Standards Inspectors attend the appropriate Air Transportation of Hazardous Materials Course as course quotas and inspector availability permit.

Flight Standards Inspectors also receive training from their Regional Hazardous Materials Specialist. These regionally conducted training sessions update trained inspectors and train inspectors who have not been trained so that they may perform hazardous materials inspections. During CY 1978, 813 inspectors received regional training in 213 training sessions.

Mr. ANDERSON. You do monitor their courses, then, to make sure they do comply with your recommendations?

Dr. PALMER. That is correct.

Mr. ANDERSON. And these programs, then, are reviewed by the FAA?

Dr. PALMER. That is correct.

Mr. ANDERSON. Now, for clarification, are these the carriers' programs that you review, or is that the FAA's programs?

Dr. PALMER. The programs that are administered out of the Transportation Safety Institute are indeed conducted by the FAA, and we do, in fact, provide training for contract personnel.

Mr. ANDERSON. I understand that in the past few years, staffing for the FAA's Headquarters for Hazardous Materials has been reduced from four to one and that the function has been downgraded organizationally from a separate office to part of a branch office.

Is my understanding correct, and has the reduced staffing resulted in the abandonment of any projects?

Dr. PALMER. I think it would perhaps be more appropriate for the Federal Aviation Administrator to respond to that specifically. With regard to the enforcement aspects and inspection aspects for hazardous materials, the record shows that they do some 6,500 inspections.

Mr. ANDERSON. Well, when they reduced the headquarters and the activities from four to one and made it part of a branch office, you wonder what, in a sense, is happening to it. I realize it is not your organization and it would be difficult for you to answer.

Dr. PALMER. That is correct.

Mr. ANDERSON. It would seem to me perhaps that you might have FAA supplement your answer on that particular situation.

Dr. PALMER. I will do that.

[The following was received for the record:]

It is true that there was a reduction in staff but the important point to note is that the majority of the work accomplished by the headquarters employees involved with hazardous materials had been on regulatory projects and in handling requests for exemption. When the Office of Hazardous Materials assumed responsibility for issuing hazardous materials regulations jointly developed with the FAA, and responsibility for acting on exemption requests with the advice of the FAA, the Flight Standards hazardous materials staff was, substantially reduced.

Mr. ANDERSON. A letter from the Air Transport Association in the Library of Congress study for Senator Cannon indicates that the air carriers have adopted regulations for hazardous materials which are more restrictive than the DOT's. Do you agree with this assessment, and why has it been necessary for the carriers to adopt stricter regulations?

Dr. PALMER. It is my understanding that in some instances, they have indeed adopted more restrictive requirements. It is certainly not our position that these are any more helpful, if they are following the performance standards requirements established by DOT.

It has to do with the Air Line Pilot Association's continuing concern for the transport of hazardous materials by air. I think it is perfectly proper that they speak in that arena, and if they feel a need for greater security, they should voice that also.

Mr. ANDERSON. Would they be doing that if they have adopted stricter regulations than what you have? Would that not be their voice to tell you, "We do not think the restrictions are enough"?

Dr. PALMER. Yes, I concur that has been the case.

Mr. ANDERSON. Well, I assume the word "stricter" means it is more safe.

Dr. PALMER. I am not sure that that is correct.

Mr. ANDERSON. You are not sure that the word "stricter" really means more safe?

Dr. PALMER. No. It means "strict," and I think that that is what they said.

Mr. ANDERSON. The Government Operations Committee reported in 1976 that the hazardous materials regulations were too complex to be understood by the average persons handling hazardous materials for shippers and carriers. The committee recommended the adoption of simplified regulations which would be understandable to the users.

Have any steps been taken to implement this recommendation?

Dr. PALMER. Yes. Part of the Secretary's response has been to direct all individuals involved in regulation writing to use, as I recall the directive language, plain English. In addition, in the case of hazardous materials regulations where many of them are very technical and must be technical, we have developed descriptive

handouts which further simplifies the regulations and what one must do to obey them.

Mr. ANDERSON. The Government Operations Committee report also concluded that the FAA's regulation of air taxi operators, exempted to transport hazardous materials for Government agencies, has been woefully inadequate. Do you agree with this 1976 assessment, and if so, have any steps been taken since? Have you implemented any of the specific recommendations of the committee, and I will go into those and then I will come back and let you pick these out one at a time; first, that the OHMO should permanently restrict the exemption authority of air traffic operators to the transportation of class A, B, and C explosives.

Second was that FAA FSDO's should follow the flights of exempted air taxi operators and conduct ramp checks of loading and unloading operations. Third, the FAA FSDO's should regularly require exempted air taxi operators to submit, and FSDO's should then evaluate, company trip reports and Government bills of lading.

Now, I will go back with this. The assessment was that the FAA's regulation of air taxi operators exempted who transport hazardous materials for Government agencies has been woefully inadequate. Do you agree with this 1976 assessment?

Dr. PALMER. Mr. Chairman, I find that I am not prepared to respond to you in that much detail with respect to the FAA enforcement program. If I might defer those to get you a response from FAA—

Mr. ANDERSON. For the record, then, will you have the answers on this made for the record?

Dr. PALMER. Yes, I will.

[The following was received for the record:]

Air taxi operators are subject to the same regulations as other certificated operators. The kinds of exemptions granted to air taxi operators have been substantially curtailed since 1976. The only exemptions to air taxi operators are to carry nonfissile radioactive materials (radioactive pharmaceuticals) and explosives in classes A, B, and C. The safety and control measures to provide an equivalent level of safety are very explicit and the operators are surveilled by flight standards.

Mr. ANDERSON. Mr. Shuster.

Mr. SHUSTER. Thank you, Mr. Chairman. Welcome, Dr. Palmer. I understand that there were about 18,000 transportation incidents involving hazardous materials during 1978. How many people were killed in 1978 as a result of the release of hazardous materials while being transported?

Dr. PALMER. In 1978, 46 persons were killed.

Mr. SHUSTER. What about injuries, do you have any statistics on that?

Dr. PALMER. 1,130 injuries.

Mr. SHUSTER. Which transportation mode accounted for the most fatalities?

Dr. PALMER. Last year, it was rail, on death, and highway, on injury.

Mr. SHUSTER. Is that typical?

Dr. PALMER. No. Normally, highway has been the highest in both death and injury.

Mr. SHUSTER. Do you have the percentages over a longer period of time relative to highway, rail, water and air?

Dr. PALMER. Yes.

Mr. SHUSTER. If you would submit those for the record, I would appreciate that.

Dr. PALMER. I will.

[The following was received for the record:]

DEATHS AND INJURIES RESULTING FROM HAZARDOUS MATERIALS ACCIDENTS, 1971-78

	1971	1972	1973	1974	1975	1976	1977	1978	Total
DEATHS ¹									
Air	0	0	0	4	0	0	0	0	4
Highway (for hire)	18	6	11	14	7	12	14	14	96
Highway (private)	5	6	7	4	20	4	17	6	69
Rail	0	0	3	10	0	2	1	26	42
Water	0	0	0	0	0	0	0	0	0
Freight forwarder	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0		0
Total	23	12	21	32	27	18	32	46	211
INJURIES ¹									
Air	0	0	6	5	4	4	9	43	71
Highway (for hire)	122	192	297	243	395	568	447	536	2,800
Highway (private)	60	49	38	38	92	49	60	58	444
Rail	21	53	152	596	96	198	233	482	1,831
Water	48	0	3	17	2	1	0	10	81
Freight forwarder	0	0	0	4	15	0	0	1	20
Other	2	0	13	0	51	0	0		66
Total	253	294	509	903	655	820	749	1,130	5,313
DAMAGES									
Air	0	\$2,853	\$5,104	\$4,511,708	\$9,159	\$20,512	\$28,636	\$6,834	\$4,584,856
Highway (for hire)	\$3,118,508	3,587,379	2,604,163	3,849,176	3,028,405	3,617,548	4,272,106	5,442,533	29,519,818
Highway (private)	1,661,475	2,701,366	1,713,815	924,980	2,574,211	2,057,017	4,356,545	3,819,373	19,808,782
Rail	1,491,745	1,549,358	3,021,685	11,965,143	1,481,995	2,294,633	7,815,243	6,848,364	36,468,166
Water	201,052	1,252,095	8,009	20,117	6,331	5,270	18,258	17,412	1,529,044
Freight forwarder	0	0	0	0	3,345	405	351	160	4,261
Other	136,006	223,925	14,439	13,035	182	3,788	19,700		401,074
Total	6,608,785	9,316,976	7,367,215	21,284,159	7,103,628	7,999,173	16,500,889	16,135,176	92,315,461

¹ Directly attributable to unintentional release of hazardous materials.

Mr. SHUSTER. With respect to the trucking industry, what is the incidence of violations among carriers that are regulated by the ICC as compared with carriers that are not regulated?

Dr. PALMER. In 1978, the incidents of highway for hire, or those that are regulated--15,983 incidents, or well over 88 percent of the grand total of all incidents reported; in the highway private, 565 were reported, or about 3 percent of the total.

Mr. SHUSTER. Well, when you say 88 percent, or 15,983, is that regulated or unregulated? A carrier can be for hire and not be regulated.

Dr. PALMER. Those are the regulated carriers; those that are engaged in interstate commerce for hire and who must report all incidents.

Mr. SHUSTER. I presume that is because they are required to report them.

Dr. PALMER. I would say that is true.

Mr. SHUSTER. What percentage of our motor carrier freight is carried by regulated and what is carried by unregulated? Certainly, it is not 88 percent that is carried by regulated.

Dr. PALMER. If I might ask Mr. Pierson of the Federal Highway Administration; he has the information.

Mr. PIERSON. My name is Kenneth Pierson; I am Deputy Director of the Bureau of Motor Carrier Safety. The for-hire franchised carriers transport something over 50 percent of all the freight moving on the highway, even though they are only 10 percent of the business entities. So one would expect that their reporting incidence would be higher because of the greater exposure or potential for violation.

Mr. SHUSTER. What I am trying to get at is the safety record of regulated as compared with unregulated, and these numbers really do not give us that. Could you comment; do you have any statistics or facts or observations with regard to the relative safety record of carrying these materials, regulated versus unregulated?

Mr. PIERSON. No, sir, we do not. That was one of the data gaps identified by the Secretary's study group.

Mr. SHUSTER. But you would agree with me that the statistics you gave me, while they indicate that 88 percent of those recorded are with regulated carriers, really do not accurately tell the story. One should not infer from these statistics anything with regard to the safety record of regulated versus unregulated.

Mr. PIERSON. That is correct, sir. It is empirical data; simply a numerical count.

Mr. SHUSTER. Right. Is there a proliferation of state and local laws and ordinances which restricts the transportation of hazardous materials, or otherwise makes it more difficult for shippers and transporters to transport such materials?

Dr. PALMER. There are indeed certain State laws that are more restrictive than those of the Federal Government, although most of them relate to radioactive material transport rather than the transport of hazardous material in general.

Mr. SHUSTER. It is my understanding that States are adopting many laws and ordinances with regard to the transport of hazardous material, and it goes beyond nuclear.

Mr. PIERSON. Yes, sir. There are a number of States and localities that, when they initially begin to consider hazardous material regulation, start very narrow, but those State and local legislatures or councils soon come out with bills that are quite broad in their applicability.

Mr. SHUSTER. Is this based on emotion or based on hard statistical data? Have we evaluated the impact of these local and State requirements as to whether they are really necessary or whether they are emotionally conceived?

Mr. PIERSON. My assessment, sir, is that they are generally emotionally perceived. A hazardous material incident of any magnitude is a rare event, and yet because of the media coverage and concern currently on this issue, they feel that they owe it to the citizenry to protect them from all eventualities.

Mr. SHUSTER. Thank you very much. We will have other questions that we will submit for the record. Thank you, Mr. Chairman.

Mr. ANDERSON. Mr. Fary.

Mr. FARY. Thank you, Mr. Chairman. I have two questions here for Dr. Palmer. The National Transportation Safety Board has testified in the past that MTB should take steps to register highway bulk carriers of high-risk, hazardous materials. Has the MTB taken any steps in this direction?

Dr. PALMER. Let me answer in general and then ask Mr. Santman to give you the specifics. We indeed do prescribe the requirements for tank trucks in the LNG and LPG areas. In these areas we either have, or are proposing, certain registration requirements. It is our judgment that this activity meets the proposal by NTSB with regard to registration of bulk carriers. Mr. Santman has details on that.

Mr. SANTMAN. Mr. Pierson's organization has for years required all of the cargo tanks that are used to carry LP gas and anhydrous ammonia, commonly known in the business as MC-330 or 331 tanks, to be registered with the Bureau of Motor Carrier Safety.

We, in our rulemaking activities today, are considering another range of trucks; trucks that carry cryogenic materials—materials that, rather than being pressurized, are chilled; it is gas that is chilled and then transported in a liquid form. We have, in that rulemaking, a proposed requirement for the registration of those tank trucks that will be used to carry flammable cryogenics, such as liquefied hydrogen or liquefied natural gas.

So we do have, within the Department of Transportation, a number of registration requirements that go to both the pressurized tanks and those that carry cryogenic flammable materials.

Mr. FARY. Thank you. One more question, Doctor. When especially hazardous materials are regularly shipped over a set route, is anyone responsible for notifying local authorities along the route so that they can develop contingency plans in case of an accident?

Dr. PALMER. There is no requirement to notify anyone along the route of any shipment of hazardous materials.

Mr. FARY. Even though there are very dangerous materials going through that particular area, no one is alerted to the fact so that they can be prepared to prevent a catastrophe?

Dr. PALMER. There are no route notification requirements. On the other hand, there is a great deal of training of emergency

response personnel provided by DOT each year to all who have an interest or who are likely to be persons who will be involved, such as volunteer fire departments, police departments, and so on.

Over a 5-year period, we have distributed some 800,000 pieces of material on how to respond in an emergency due to hazardous materials. We are updating this material at the present time.

We also have a course available through the States, and we are preparing short courses for use in home study for emergency response individuals along much frequented hazardous material routes.

Mr. FARY. Thank you very much. I yield back my time, Mr. Chairman.

Mr. ANDERSON. Mr. Stangeland.

Mr. STANGELAND. Thank you, Mr. Chairman. Dr. Palmer, I am looking at a document here by the Congressional Research Service, a document they did for Senator Howard Cannon. In that, it says:

As discussed in Chapter 9, another personnel concern is the small number of DOT hazardous materials inspectors in relation to the size of the industry. The inspection forces of HAWA and FRA are so small that they can make no more than a token number of inspections of those parts of the hazardous materials industry that they are responsible for. Until the inspection forces of these agencies are substantially increased, there will be no assurance that the hazardous materials industry is complying with the regulatory requirements.

Do you have any comment on that finding?

Dr. PALMER. Yes. I think the first thing I would comment to you is that we have examined that and have looked at the role and work of those individuals, and we see a greater productivity from the inspectors who are currently in the field; that is, through training and development of technique, we have increased their productivity.

Second, FRA added 12 additional part-time inspectors in 1978, and is requesting 5 new persons in 1980. In addition to that, the FRA increased its inspections in 1978 by about 50 percent. Federal highway inspection efforts are carried out not only by the FHWA people, but also by the State personnel who are involved in the inspection and registration of vehicles and drivers, and through various check stops that are made on the highway.

So we concur, certainly, in the observation about the small number of inspectors. However, we feel that it is incumbent upon us to increase our productivity and then see what we should be doing in relationship to the numbers of inspections that are appropriate for individual inspectors, and then to request additional inspectors to carry out the activities, as required.

Mr. STANGELAND. That is somewhat refreshing that you have decided to upgrade the inspectors and make sure they are all productive before you just ask for more people; that is kind of a refreshing attitude to hear.

Let me ask you this question: Last year, there was authorized \$5 million for the purpose of carrying out the Hazardous Materials Transportation Act. How much did the Department request at the appropriations hearings?

Dr. PALMER. The Department requested \$3,634,000.

Mr. STANGELAND. And that was about what was appropriated?

Dr. PALMER. That is correct.

Mr. STANGELAND. Do you believe that that was adequate to carry out the hazardous materials programs, or could you better develop and implement the responsibilities imposed on you with additional funds?

Dr. PALMER. The level of funding, in correspondence to the effort at the present time, is about right. We have some unmet needs in terms of our ability to provide materials for emergency response personnel, and as we take on the National Response Center, this will cause some unanticipated increase in our personnel requirements.

In addition, the taking on of some of the data bases from the CAB and the ICC will place some additional requirements on our resources. But by and large, the situation as we see it now is about where it should be in terms of the number of inspections that we carry out, related to the number of incidents that we see and the number of fatalities and injuries within the system.

It is our considered judgment that when one addresses the 46 fatalities of last year and the 4 thus far this year, that to field a Federal force sufficient to address all of these would be orders of magnitude greater than at present and not just small additions.

I think that given our present situation, we could definitely use a small increase. A large increase would, I think, put into the minds of the Congress that somehow or another, we should be doing more marvelous things. A modest increase would take care of what we feel is an appropriate level. To get to a high level of insurance for the numbers of incidents would require substantially more, and by that I do mean orders of magnitude, because you must then talk about investigations of virtually every incident and full-time inspections of every performance requirement.

While we certainly regret any death or injury, I do not think we can demonstrate that by walking a piece of railroad track, it will not break before a train comes over it by forces that are not detectable. Until we can do that, I do not think we are in a position to utilize massive infusions of new resources.

Mr. STANGELAND. Thank you, Dr. Palmer. No more questions, Mr. Chairman.

Mr. ANDERSON. Ms. Ferraro.

Ms. FERRARO. Thank you, Mr. Chairman. I am just intrigued by some of your statistics and I am not quite sure whether I heard them properly. I believe you said there were 18,000 transportation incidents in 1978.

Dr. PALMER. That is correct.

Ms. FERRARO. And I heard a number of 2,200 somewhere.

Dr. PALMER. The 18,000 incidents are those that are reported as involving spills of hazardous materials; everything from a paint thinner can spill on a loading dock to the rupture of an acetylene tank in a rail incident.

In keeping the statistics for this incident-reporting data base, we go back to the year 1971. In that year, 2,256 incidents were reported.

Ms. FERRARO. So that between 1971 and 1978, there is really a jump. Is that due to better reporting procedures or are people just getting sloppier with hazardous materials?

Dr. PALMER. We really believe it is due to a better reporting system; that is, more people know of our requirements. The requirements prior to this were not very explicit, and as more of the carriers become aware of their responsibilities, they are reporting this information.

Probably, the best example to look at is large-scale accidents; are these occurring with greater frequency. We generally think that that is not the case; that the trend in the number of major accidents per year has not changed much in the past 8 years.

Ms. FERRARO. Is there any penalty to a carrier who fails to report an incident?

Dr. PALMER. If the carrier fails to report an incident, it must be detected through an inspection, and if that is the case, they are indeed fined.

Ms. FERRARO. So therefore if it is not detected through an inspection because you do not have enough inspectors to go out and check them out, I assume there are a lot more incidents that are not reported and that are actually taking place.

Dr. PALMER. That is certainly a possibility. We will not know until we begin to level off on the number of reported incidents. That has yet to happen. We feel that through the rule and regulation writing and our program of education, we are getting to more and more individuals who will actually report what is going on. Until this number of reported incidents stabilizes, we will not know.

Ms. FERRARO. So that 18,000 is not an accurate figure; as was indicated before, it could possibly be much, much higher than that.

Dr. PALMER. That is correct. Additionally we have no authority to do much with intrastate transportation, for example, the small shipper who ships only inside the city, or State, because they are not in interstate commerce. We do not provide the same kind of regulation there, although States can adopt regulations.

Ms. FERRARO. Thank you very much.

Mr. ANDERSON. Mr. Abdnor.

Mr. ABDNOR. Thank you, Mr. Chairman. If I could just ask a question or two along the same lines that Mr. Stangeland was asking Dr. Palmer a while ago, how many of the modal administrations have been able to obtain hearing officers to handle formal hearings requested by alleged violators? Do you have hearing officers available?

Dr. PALMER. The FRA and Coast Guard have hearing officers.

Mr. ABDNOR. The other ones do not?

Dr. PALMER. That is correct.

Mr. ABDNOR. Has any consideration been given by the MTB to obtaining hearing officers for all of the different agencies?

Dr. PALMER. When we need them, we utilize them from either the Coast Guard or FRA.

Mr. ABDNOR. Do you have much of a backlog, to your knowledge?

Dr. PALMER. Let me ask Mr. Driscoll, who is Chief Counsel, Research and Special Programs Administration, to respond.

Mr. DRISCOLL. The question of getting on board administrative law judges or hearing officers for the penalty proceedings under the Hazardous Materials Act has been addressed on a Department-

wide basis. A review of the best way to approach this, as I understand it, is still underway.

As far as either the Materials Transportation Bureau or any of the other operating administrations, my understanding is they have not had a problem in obtaining qualified officers. In point of fact, I do not believe that there have been more than perhaps one or two that have required those services at the request of the defendant in those cases. So it has not been a problem.

Mr. ABDNOR. There is no concern then, really; it is being pretty well taken care of today?

Mr. DRISCOLL. Yes, sir.

Mr. ABDNOR. I was just curious; I thought there might have been a shortage. Thank you very much; that is all I have.

Mr. ANDERSON. Dr. Palmer, in your prepared statement, you indicate that the TSC—that is, the Transportation Systems Center at Cambridge—has taken over certain testing from the Bureau of Explosives of the AAR.

Is this testing performed for or on behalf of private parties and, if so, is the cost recovered from the private parties, or paid for out of appropriated funds?

Dr. PALMER. The TSC has indeed taken over the delegation of responsibility for the testing that was formerly done in the Bureau of Explosives. TSC, at the request of private parties, tests items and also, in addition, provides training to the private sector from time to time; this would be conducted at TSI.

The testing generally comes under the Government-wide user charge statute, and recovery of cost for performing these services is not only permitted, but encouraged. We ultimately recover the cost of these activities from private parties, as they are performed.

Because we must do the testing prior to the receipt of payment, we use appropriated funds to carry out the tests and then collect, after the fact, from those private parties the fees for this effort.

Mr. ANDERSON. Where does the money go to?

Dr. PALMER. It goes to the general fund.

Mr. ANDERSON. Is an amendment to the act needed for recycling these payments from private industry into the Bureau's account?

Dr. PALMER. We feel that that would be most desirable in terms of our efforts.

Mr. ANDERSON. Recently, a report was released that was prepared for the Senate Committee on Commerce, Science and Transportation. On page 137 of that report, seven issues for possible congressional consideration were listed. I want the Department to examine those seven issues and to furnish the committee with its views on those issues and the conclusions reached in that report.

Moreover, I would like an estimate of how much it would cost the Department to assume the activities discussed therein. I have instructed the staff to discuss this matter with you and to work out the details for the submission of the Department's report.

So I would like to present here for the record a series of questions, broken down item by item, that we would like to have you, in detail, prepare for us. Without objection, this will be made a matter of the record and your answers will be made a matter of the record.

Dr. PALMER. Yes, we will do that, Mr. Chairman.

[The information follows:]

1. QUESTION(S):

PART A. Do you have any suggestions how the Federal Government, the States, and local authorities could develop a uniform national and State program for the transportation of hazardous materials and then carry it out on a partnership basis?

PART B. Is there a proliferation of State and local laws and ordinances which restrict the transportation of hazardous materials, or otherwise make it more difficult for shippers and transporters to transport such materials?

(1) What is the nature of such restrictions? Can you give examples?

(2) Why are so many States adopting these laws and ordinances? Is it mostly emotional, or is it based on unsafe operations and/or the degree of hazard involved in the transportation?

(3) Are the laws and ordinances focused on a particular type of materials being transported or on a particular type of transportation (such as truck or rail, or tank truck, tank car)?

PART C. Is there any uniformity of laws and ordinances being adopted by the states and localities?

(1) How are most of the State and local laws developed? Is each one original, do they pattern after other State and local laws, or are they adopting Federal laws and regulations?

ANSWER: Safety regulation of the transportation of hazardous materials by aircraft, barges and seagoing vessels, and railroads is fully addressed by the Federal Government and, except in a very few instances, States have not felt the need to venture into these fields. The few State regulations that have been challenged, more often than not, have been struck down as preempted or as a burden on interstate commerce.

In the area of highway transport of hazardous materials, however, the role of the States is, and the DOT believes should be, considerable. Federal standards apply to interstate movements of hazardous materials

and those intrastate movements performed by interstate carriers. More than half of the States have adopted at least part of the DOT standards for application to intrastate highway movements. The DOT encourages such action since it has the desirable results of fostering:

- . consistent interstate (Federal) and intrastate (50 states) regulations; and
- . participation of State law enforcement personnel in inspection and enforcement as a supplement to the Federal enforcement effort.

Some States and several localities, however, are adopting requirements for which there are no counterpart DOT regulations. These tend to involve routing restrictions and permit requirements and generally deal with radioactive materials, LNG and LPG. For the most part these additional requirements concern highways but a few also go to rail transport.

There is no discernible basis for these recently adopted restrictions in the safety/accident records of highway transport. Rather the reasons, at least for the highway restrictions, appear related to -

- . A heightened public concern with the effects of radiation and the use of radioactive and nuclear materials generally.
- . Perceived catastrophic possibilities with LNG and LPG such as those advanced in the GAO report on "Liquefied Energy Gases" and contemporary press and television coverage of the subject.

- . A growing concern over possible malevolent actions in heavily populated areas.

It is likely that the new local restrictions aimed at rail transport have been stimulated by the high frequency of derailments during the last few years and the occurrence of two extremely serious hazardous material derailments in February 1978.

The preemption provisions of the Hazardous Materials Transportation Act operate to preempt any State or local requirement that is "inconsistent" with the Federal regulations. Unless it is "inconsistent," a State or local requirement is not preempted. In the case of a State or local restriction directed at rail transport, there is a second Federal statutory provision that acts to further limit the legal authority of States and localities. Under the Railroad Safety Act, a State or locality is expressly preempted from any "additional or more stringent" rail safety requirement unless it is "necessary to eliminate or reduce a local safety hazard."

Currently in the highway area -

- . DOT has a regulation (49 CFR 397.9) which restricts interstate highway movement of hazardous materials through highly populated areas, including tunnels, narrow streets, and alleys, unless there is no practicable highway alternative.
- . DOT (FHWA) is undertaking a contractual study to develop criteria and guidelines for applying this general Federal routing rule.

- . DOT (MTB) is scheduled to issue an NPRM in September 1979 regarding highway routing of radioactive materials.

Currently in the rail area -

- . DOT (FRA) is using derailment and hazardous materials accident profiles of the existing U.S. railroad network in efforts to restrict traffic over substandard track and bring such track back up to standard.
- . DOT (FRA) is working directly with States and localities on track matters which they find to be of special concern.

While there is no direct Federal funding program for State or local hazardous materials programs, there are a number of Federal grant programs and other Federally supported activities which provide indirect assistance. For example:

- . DOT administers several statutory programs for assisting States in developing and operating transportation modal safety programs: pipeline grant-in-aid program; rail safety State participation program; and the new three-year motor vehicle safety demonstration program. In the latter program, States will be encouraged to combine vehicle weighing and safety inspections with monitoring and inspection of hazardous cargo.
- . Under the DOT State and Community Highway Safety Program, States may use portions of their allocated funds for hazardous materials training and emergency response equipment.

DOT and NRC jointly fund contracts with States (currently 5, expect 10 by the end of this fiscal year) to perform surveillance of radioactive shipments. Increased funding has been requested in the FY 1980 budget.

DOT makes available to States free of charge, hazardous materials training aids, including complete course sets of its recently developed 20-hour course on emergency response to hazardous materials accidents.

2. QUESTION(S):

PART A. Are the States and localities well informed about the preemption provisions of the Hazardous Materials Transportation Act of 1974, and about the nature and extent of Federal regulations as they apply to inter and intrastate commerce?

PART B. Is there any DOT program to monitor local and State regulatory and rulemaking activity so that the Federal government will be aware of problems that such activity might create -- problems such as restriction of transportation or additional regulatory burdens on carriers, and when DOT becomes aware of local and State rulemaking proceedings, does it begin work on a national regulation or guidelines to assure uniformity?

ANSWER: States and localities generally are not well informed about the Federal hazardous materials regulations or the preemption provisions of the Hazardous Materials Transportation Act. Although we have received only five requests for inconsistency determinations under the preemption provisions of the Act, the Department does not have a reliable survey of all potentially inconsistent requirements issued by or pending in States and localities. A recent GAO report, "Federal Actions are Needed to Improve Safety and Security of Nuclear Materials Transportation," May 7, 1979, states that over 20 percent of the States have requirements for the transportation of radioactive materials, and that in 1977, 24 bills were introduced in 19 States to regulate such transportation.

Present hazardous materials safety programs conducted independently by the Federal government and State governments address interrelated interests and have compatible objectives. Yet efficient transportation safety management is hampered by fragmented State authorities over the various modes of transportation and by the lack of formal mechanisms for Federal-State coordination.

The principal way in which MTB promotes the benefit of national uniformity is in our encouraging each State to adopt the Federal regulations for application to transportation of hazardous materials within the State.

3. QUESTION: Recently, the Department of Transportation ruled that a New York City ordinance concerning the routing of radioactive materials was not inconsistent with the requirements of the Hazardous Materials Transportation Act. In addition, a rulemaking proceeding was instituted to consider the need for routing requirements under the Act for the highway carriage of radioactive materials.

- (1) What is the current status of the rulemaking proceeding?
- (2) Please explain what your authority is with respect to routing of radioactive materials.
- (3) Do you believe that it is necessary for you to review existing Federal, State and local regulations in this area so that an actual portrayal of existing status of regulatory controls on routing can be developed?
- (4) Does the Department have any recommendations on how its authority could be improved so as to assure the safe transportation of radioactive materials in interstate commerce?
- (5) Do you know of any ordinances, other than the one in New York City, that regulate routing of radioactive materials?
- (6) Can the Federal Government preempt this area of transportation? From your own experience, do you believe that a Federal preemption would be good policy?

ANSWER:

- (1) An advance notice of proposed rulemaking was published under Docket HM-164 on October 26, 1978, which asked for public comment on whether new rules should be proposed to govern routes used by highway carriers of radioactive materials. A notice of proposed rulemaking is being drafted at the present time and we expect publication later this year, probably September. A final rule will be issued in the summer of 1980, after public hearings and comment on the notice. We expect that several hearings will be held at locations outside Washington, D.C.
- (2) Routing authority over hazardous materials carriers is expressly stated in section 105 of the Hazardous Materials Transportation Act (HMTA) (Title I of Public Law 93-633). Its exercise by the Secretary

requires coordination with the Interstate Commerce Commission, which is one of the tasks that will be accomplished in the rulemaking.

(3) No. We are necessarily interested in what other agencies are doing, particularly the Nuclear Regulatory Commission (NRC), with whom we have a joint memorandum of understanding regarding the regulation of radioactive materials transportation. We are quite familiar with the NRC's regulations and with its recent regulatory activities, such as publication of the interim safeguards rule for spent fuel. Regular staff contact with the NRC is maintained, and several staff discussions concerning current NRC activities related to highway routing have been held. The NRC will be providing recommendations later this year to supplement previous comments on Docket HM-164. We are also interested in what State and local governments are doing, in a general sense. Their concerns are appropriate for consideration in the regulatory proceedings that may lead to new Federal rules. However, a tabulation or detailed account of State and local rules is not necessary. We are examining the actual transportation picture to identify hazards and methods of dealing with those hazards. The nature of specific existing local regulations is not directly relevant to this examination.

(4) The authority provided by the HMTA is sufficient.

(5) The Department of Transportation does not maintain a formal mechanism for ascertaining transportation restrictions imposed by the State and local jurisdictions in this country, nor is it aware of any single complete source for this information. Perhaps the most nearly complete source on State and local actions is the NRC's periodic report on State legislation. Oak Ridge National Laboratory also maintains a list of

State and local ordinances that impact the use and transportation of radioactive materials. We are occasionally advised of these activities by local governments and by carriers. A number of State and local jurisdictions have enacted transportation restrictions which are similar to the New York City Health Code amendment, while other jurisdictions maintain restrictions that range from prohibitions to requirements for advance notice. Historically, some degree of regulation over hazardous materials transportation by State and local government has long existed, but radioactive materials transportation is increasingly a subject of local and State interest.

(6) Federal preemption supports rules issued under the HMTA. Section 112 of that Act expressly preempts any State or local requirement which is "inconsistent" with requirements under the HMTA. However, we do not believe it is wise, or practically possible, to preempt all State and local regulatory activity concerning hazardous materials transportation, and the HMTA itself does not encourage complete Federal preemption. We do think that some limits may be needed to ensure reasonable and reasonably uniform rules for highway carriers of radioactive materials, and Docket HM-164 will address this need. State and local governments are a primary source of detailed information on factors that should be considered in specific highway routing decisions, and we believe some method of preserving and using this knowledge would be desirable, provided it can be integrated into a uniformly applied set of rules. We expect to focus on the Federal-State relationship in this area, as suggested in the Inter-agency Review Group Report to the President on Nuclear Waste Management.

4. QUESTION(S): What is the appropriate Federal/State/Local relationship with regard to the transportation of hazardous materials? Do any changes need to be made?

Further, is there need for greater uniformity among the various levels of government which are regulating hazardous materials transportation? What might be done?

ANSWER: Federal and State governments share mutual responsibilities for protecting life and property from the inherent risks of hazardous materials transportation. Under the authority provided by the Hazardous Materials Transportation Act, the Federal government has responsibility for regulating interstate transportation of hazardous materials and that intrastate transportation affecting such interstate transportation. Under various State statutes and rules, States retain responsibility for regulating all other intrastate transportation of hazardous materials, although the Hazardous Materials Transportation Act contains preemption provisions.

The optimum Federal/State/local relationship, which DOT currently encourages, is one in which each State would:

- . Establish a single State level authority for promulgating regulations prescribing the conditions of transport of hazardous materials considered necessary to protect the health, safety, and welfare of the citizens of the State, including all municipalities within the State; and
- . Adopt, as a minimum the DOT Hazardous Materials Regulations at 49 CFR Parts 170-179.

5. QUESTION: Does DOT now have the staff capability to improve the level of uniformity of hazardous materials laws and regulation, given the authority to work for such improvement? What is needed?

ANSWER: Current staffing allows a limited effort to be devoted to monitoring State and local regulatory activities and communicating with appropriate State and local officials to encourage them to support actions consistent with the uniform Federal-State concept outlined in our other answers. This effort is currently being carried out as a part-time activity by all hazardous materials program supervisory personnel.

6. QUESTION: Is there a national strategy to assure that the most serious hazardous materials problems are dealt with on a priority basis? What are the problems and what is the strategy?

ANSWER: Yes. The strategy and a discussion of the problems are set forth in the MTB's Regulatory Review and Development Plan. See in particular pages 4-6 of the attached copy of the Plan and Schedule of Rulemaking Actions for a discussion of MTB's safety goals and regulatory development strategies. Individual program areas are discussed in some detail in Attachment I to the Plan.

MATERIALS TRANSPORTATION BUREAU
REGULATORY REVIEW AND DEVELOPMENT PLAN
AND
SCHEDULE OF RULEMAKING ACTIONS
(JANUARY 1979-JANUARY 1980)

INTRODUCTION

Background

The overall goal of the Materials Transportation Bureau, expressed in the most general terms, is to maintain and, where reasonable, enhance the public safety in the transportation of hazardous materials. During the past decade there has been a rapid growth in the transportation of hazardous materials in the United States, spurred by growth in the two largest industries concerned with the production and origin of hazardous materials—the Chemical and Allied Products Industry and the Petroleum Refining and Related Industries. Excluding shipments by pipeline, these two industries account for 35 percent of all commodities shipped by manufacturing establishments in the United States beyond the local area. The two industries are closely tied to growth in the economy, and as the economy has grown, so too has there been a corresponding growth in the quantity and frequency of hazardous materials shipments by rail, highway, air, pipeline and water. Increases in the transportation of hazardous materials result in increased risk to the public from the dangers associated with such transportation.

Public safety in the transportation of hazardous materials can be

achieved by three broad avenues of approach:

- (A) The development and promulgation of new regulations or the refinement and clarification of existing regulations;
- (B) Enforcement and compliance of existing regulations;
- (C) Training and education in the handling and shipment of hazardous materials and in the requirements imposed by MTB's regulations.

Although these three broad approaches to public safety in the transportation of hazardous materials are closely related, this document is primarily concerned with regulatory development, and the actions MTB believes it necessary to pursue, over and above its compliance and enforcement, and training and education program efforts.

Basis for the Plan

The Regulatory Review and Development Plan is based on the premise that a system for prioritizing MTB's rulemaking activities is essential if MTB is to effectively carry out its statutory mission to adequately protect the nation against the risk to life, death, and property inherent in hazardous materials and pipeline transportation. The Plan also ensures that MTB's regulatory activities are consistent with and in furtherance of the President's goal to improve the Federal regulatory process as enunciated in Executive Order 12044 and reflected in the Secretary's policies and procedures (43 FR 9582) which implemented that Order. These policies and procedures not only enumerate specific planning requirements--such as the development of a plan for evaluating a regulation after its issuance, the development of a Work Plan for all significant regulations, and the development of a plan to increase public participation in the regulatory process--they also require the analysis of regulatory alternatives and

the adoption of regulations that do not impose unnecessary burdens on consumers and on public and private organizations. All this cannot be done effectively without a system of planning.

MTB's Regulatory Review and Development Plan serves two primary purposes.

It provides a framework to identify and analyze the complex safety problems and issues associated with hazardous materials and pipeline transportation.

It also serves as the Bureau's primary internal regulatory development and resource management tool. The resources of MTB are not sufficient to enable it to consider in detail and individually process, in an efficient manner, each of the many substantive petitions, proposals and recommendations for rulemaking actions which it annually receives on hazardous materials and pipeline transportation; nor are resources sufficient to conduct indepth examinations of the many complex issues associated with these areas.

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

SAFETY GOALS AND REGULATORY
DEVELOPMENT STRATEGIES

Transportation Trends and Concerns

Hazardous materials are a necessary ingredient for the nation's economic and social well-being. Upwards of 720 billion ton-miles of hazardous materials are transported annually by the various modes.

Liquefied petroleum gas (LPG), for example, is currently the nation's fourth largest source of energy, and liquefied natural gas (LNG) may account for as much as 10 percent of the total supply of natural gas to the U.S. by 1985.* Radioactive materials play an increasing role in industrial applications, medical research and treatment. To unnecessarily impede or hinder the transportation of these and other hazardous materials could cause serious dislocations in employment and other economic sectors of the economy.

In formulating a regulatory development strategy, MTB must strive for the highest levels of public safety but simultaneously consider the many important issues involved with cost versus benefit, energy and other impacts on the economy, the environment, and the Nation in general.

The Hazardous Materials - Pipeline Safety Threat

The number of accidents involving hazardous materials and pipeline transportation increases each year and, although fatalities resulting from

* Selected references used to develop this paper can be found in Attachment II.

these accidents are low, injuries attributable to the unintentional release of hazardous materials have increased at a rate of 17 percent each year over the past seven years. This trend, coupled with the concept of "preventative safety regulation"--minimizing low probability-high consequence accidents -- underscores the need for the development of a forward-looking, dynamic safety strategy. A policy devoted to the "status quo" in public safety is not commensurate with the continued increases in accidents and injuries, and the continued incidence of fatalities associated with such transportation.

Although "low probability - high consequence" accidents occur rarely, the potential for catastrophe is present in many incidents involving hazardous materials or pipeline releases. Types of shipments which are associated with this high-consequence accident potential are increasing -- LPG and LNG shipments are examples -- and there has been a corresponding increase both in the number of people exposed to such shipments and the frequency with which they are exposed. Regulating the "potential for catastrophe" may not yield definite payoffs in terms of visible reductions in accident fatality statistics. Such a strategy will, however, provide long-term gains for overall hazardous materials and pipeline transportation safety in the context of the degree of danger associated with the transportation of certain hazardous substances, and will benefit in one category that is difficult to quantify -- saved lives.

It is within this context that MTB must promulgate its overall goals and objectives in order to assure the public the highest possible level of hazardous materials and pipeline transportation safety.

The MTB Safety Program Goals

- ONE: To facilitate hazardous materials and pipeline transportation in a manner to adequately protect the nation against the risks of life, health and property.
- TWO: To reduce the numbers of accidents, injuries and fatalities in hazardous materials and pipeline transportation.
- THREE: To minimize the public exposure to risk of both high and low consequence accidents in hazardous materials and pipeline transportation.

The Bureau's Safety Objectives

In order to achieve the Bureau's safety program goals a number of objectives have been established. They are:

Simplify and improve the quality of new and existing regulations;

To the degree possible, insure compatibility between U.S. and International safety standards in transportation;

Develop and implement, to the degree possible, a phased program to convert technical standards to performance oriented standards, where feasible, especially in the area of hazardous materials packaging and related plastic containers;

Reduce the actual impacts - e.g., size, spread, etc. — of a hazardous materials or pipeline release or spill in either a high or low consequence accident environment;

Minimize to the degree possible population and property exposure to potentially high consequence accident shipments.

REGULATORY DEVELOPMENT PRIORITIES AND MAJOR PROGRAM AREAS

Apart from statutory, or emergency situations, calling for MTB to address a specific public safety issue involving pipeline or hazardous materials transportation, rulemaking priorities in MTB are determined at two levels:

Priorities Among and Within Major Safety Program Areas.

Priorities Among Major Regulatory Efficiency Program Areas.

Priorities Among Major Safety Program Areas

Major safety programs are designed to focus Bureau management attention and channel MTB's energies and resources to those areas that deserve priority treatment in terms of overall safety goals in hazardous materials and pipeline transportation. Priorities among these major safety program areas are determined by weighing two fundamental considerations:

The current likelihood, frequency, and magnitude of accidents occurring in the subject areas under worst case conditions; and

The potential a regulatory action has for application to a similar problem in other program areas.

The complete current ordering among the major safety programs for hazardous materials and pipeline transportation that have been identified from a very large list of possible program definitions is as follows:

Hazardous Materials Transportation

Cargo Tank Safety and Integrity

Tank Car Safety and Integrity

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

Pipeline Transportation

LNG Safety

Highly Volatile Liquids Pipeline Safety

Plastic Pipe Safety

Pipeline Welding/Other Safety Concerns

Arctic Pipeline Safety

Offshore Pipeline Systems

Petroleum Gas Distribution Pipeline Systems

Priority Program Areas

The top two priority program areas for hazardous materials transportation have been determined by MTB to be Cargo Tank Safety and Tank Car (Rail) Safety -- with Cargo Tank Safety having first priority. Both of these program areas have top rulemaking priority because of the high accident rates cargo tank vehicles and railroad tank cars have been experiencing, and the high number of fatalities, injuries, and property losses that are involved with these accidents relative to the other major safety program areas. But currently Cargo Tank Safety has priority over Tank Car Safety 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 high consequence rail tank car accidents.

As a logical corollary of this system of assigning priorities, rulemaking actions which are designed to enhance emergency response capabilities also assume high priority (included with the emergency response program are regulatory 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 appear under this major program).

Next in order of priority is the transportation of radioactive materials—which entails relatively minor accident frequency rates, but does carry a high potential for serious impacts in a worse case accident environment.

The same considerations were also employed in defining and rank ordering major safety program areas for pipeline safety. Currently, LNG safety has top priority because although the likelihood and frequency of LNG accidents is small, the magnitude of potential loss to human life, health, and property calls for prompt regulatory action with respect to LNG facility siting, design, construction, operation, and maintenance.

Priorities Within Major Safety Program Areas

All proposals or petitions for rulemaking received from the public and proposals from other government agencies, including the Department's own operating administrations and the MTB, are assigned to the major program area that most adequately describes the area the petition or proposal seeks to address. Where appropriate they are also cross-referenced to other major program areas that may be affected. Each individual petition or proposal is then evaluated and assigned a priority rating on the basis of whether

or not it meets the following criteria:

Regulatory Proposal Priority Rating Criteria

Priority (A): Major safety issue - a revision of the regulations which would result in an immediate and substantial improvement in public safety, or result in a substantial abatement of an existing and continuing hazardous situation; these generally are regulations which have the effect of reducing the potential for high consequence accidents.

Priority (B): Safety problem or safety improvement - a revision to existing regulations which would eliminate within a projected period of time a potential or an existing and continuing hazardous condition that is not as potentially disastrous as that described in Priority (A). For rulemaking actions that address less than major safety issues requiring fairly immediate corrective action it frequently is possible or even necessary to phase in the implementation of that action over a period of time to lessen the potentially disruptive and noneconomic impacts which a more rapid regulatory implementation schedule would entail. These regulations generally are designed to reduce the likelihood of an accident.

Priority (C): Exemption elimination - a revision to the regulations incorporating the provisions of an exemption to the current regulations, proven to have a satisfactory safety performance record based on actual shipping experience.

Priority (D): Regulatory adjustments (such as in response to new technology) - a revision to current regulations for the purpose of including technological

improvements or more economic transportation alternatives not presently authorized.

Priority (E): Minor regulatory issues (limited significance or impact)-a revision to the regulations for the purpose of clarifying a provision, but not changing its intent or meaning.

Individual petitions or proposals for rulemaking actions that have a Priority A or B rating -- and therefore are clearly directed to addressing and solving a safety issue -- have priority over other proposals, such as those which are directed to incorporating into MTB's regulations new technological standards.

MTB recognizes that one of the major driving forces behind technological innovation is economics. But in evaluating economic considerations in terms of perceived safety requirements and issues, MTB's primary concern must be with safety. This is not, however, to say that economic considerations involving the relative costs, benefits, and other impacts of rulemaking actions involving safety issues are not an integral part of the rulemaking process.

Priorities Among Major Regulatory Efficiency Program Areas

Four major program areas have been defined for purposes of increasing the efficiency of the MTB's regulatory review and development process. The considerations applicable to the ranking of these program areas are in harmony with the President's goal to improve the Federal regulatory process and in furtherance of the Secretary's policies and procedures for reducing the burdens and complexities of regulations. The priority ordering of these major program areas is as follows:

Regulatory Efficiency

Simplification/Consolidation/Elimination of Regulations

Technological Innovation/Facilitation of Transportation

Minor Regulatory Changes/Terminations

Regulations Selected for Review

It should be noted that one of these program areas -- Technological Innovation/Facilitation of Transportation -- has as one of its objectives the processing of rulemaking petitions or proposals which would result in significant reductions in the costs of transportation without compromising public safety -- or if possible with an accompanying improvement in public safety.

These program areas will also accommodate rulemaking actions which MTB intends to terminate, either because the magnitude of the safety problems are found to be less than anticipated, or because the economic impact of the proposed rule was found to significantly outweigh its anticipated benefits, or because the Bureau was unable to adequately document the nature and the extent of the technological/economic improvement sought. This year, MTB plans to withdraw one such open docket rulemaking action.

Other factors considered in setting the priority given to an individual rulemaking petition include its "program fit" characteristics -- that is, the extent to which the proposal or petition complements other rulemaking petitions proposed or already underway -- and the internal engineering soundness and feasibility of a proposal or petition, together with the extent and comprehensiveness of the data submitted to support it.

It is on the basis of this system of assigning priorities that the scope and content of the MTB's Annual Schedule of Rulemaking Activities for hazardous materials transportation and pipeline safety have been determined.

MTB recognizes the evolutionary nature of the Regulatory Plan. It has been prepared in an effort to assure that limited resources are assigned to safety areas requiring priority attention. It is also intended to assist the public in understanding the MTB's regulatory philosophy, and plans.

SCHEDULE OF RULEMAKING ACTIONS

The schedule of specific rulemaking actions contained in this Plan covers a period of approximately one year from the date of this publication.

The schedule is divided into two major sections. Section I pertains to rulemaking priorities with respect to the safe transportation of hazardous materials by transportation modes other than pipelines. Section II pertains to rulemaking priorities for pipeline transportation. The rulemaking actions associated with hazardous materials and pipeline transportation are sufficiently dissimilar as to warrant separate identification and treatment.

Under Section I (A and B)—hazardous materials transportation—thirty-nine separate rulemaking dockets and projects are contemplated. The schedule represents a significant increase in MTB's regulatory activities over the previous Plan, largely due to a modest increase in MTB's personnel resources. Additionally, five regulatory review projects have been scheduled which will entail the review of existing regulations to determine whether they are meeting existing needs, or whether they should be deleted or changed.

Under Section II(A and B)—pipeline transportation — twenty-five separate rulemaking dockets and projects are contemplated with six regulatory review projects also having been initiated. Here, too, a significant increase in the scope of the MTB's rulemaking activities is projected.

SECTION IMATERIALS TRANSPORTATION BUREAU
RULEMAKING SCHEDULE1. MISSION GOAL: PUBLIC HEALTH/SAFETY-HAZARDOUS MATERIALS
TRANSPORTATIONA. MAJOR PROGRAM AREAS: PUBLIC SAFETYCARGO TANK SAFETY/INTEGRITY

- Docket HM-115: Proposed standards and procedures for the transportation of cryogenic liquids — NPRM, February 1979.
- Project 270-78: Development of driver training requirements pertaining to hazardous materials properties and cargo tank characteristics. - ANPRM, March 1979.
- Project 271-78: Development of standards and periodic tests to prevent rupture of hoses used to load and unload cargo tanks. - ANPRM, May 1979.
- Project 272-78: Proposed revision of attendance requirements to include transportation activities other than loading and unloading. - NPRM, July 1979.

TANK CAR SAFETY/INTEGRITY

- Project 264-78: Consideration of possible changes to current safety performance standards for DOT specification 105 tank cars. - NPRM, March 1979.
- Project 259-78: Proposed amendments concerning tank car safety appurtenances. See Hazardous Materials Emergency Response/Communications.
- Docket HM-115: Proposed standards and procedures for the transportation of cryogenic liquids. See Cargo Tank Safety/Integrity.

HAZARDOUS MATERIALS EMERGENCY RESPONSE/COMMUNICATIONS

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|-----------------|--|
| Project 266-78: | Proposed incorporation of shipping descriptions and serial numbers from United Nations Regulations covering the transportation of dangerous goods. - <u>NPRM</u> , March 1979. |
| Docket HM-126: | Development of a numerical identification code for hazardous materials for use in emergency situations. - <u>ANPRM</u> , March 1979. |
| Project 259-78: | Proposed standards concerning the availability of hazardous materials shipping papers to emergency response personnel, car placement requirements, compliance with track standards and tank car safety appurtenances. - <u>NPRM</u> , February 1979. |
| Docket HM-151: | Incorporation of color specifications for hazard warning labels printed directly on a packaging. <u>Final Rule</u> , January 1979. |
| Project 273-78: | Development of changes to shipping papers, marking, labeling and placarding requirements and consideration of numerical identification code for hazardous materials for use in emergencies. - <u>ANPRM</u> , March 1979. |

RADIOACTIVE MATERIALS

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|-----------------|---|
| Docket HM-152: | Revision of certain sections of Part 175 (49 CFR) to reduce the exposure of passengers to radioactive materials carried aboard aircraft. - <u>Final Rule</u> , April 1979. |
| Docket HM-164: | Would establish routing requirements for highway carriage of radioactive materials. - <u>NPRM</u> , July 1979. |
| Project 263-78: | Proposed methods to reduce radiation exposure levels to transportation workers. <u>NPRM</u> , June 1979. |
| Docket HM-169: | Proposed consolidation, simplification and recodification of the existing requirements applicable to the transportation of radioactive materials. See: Simplification/Consolidation Elimination of Regulations. |

CLASSIFICATION

- Docket HM-145: Consideration of new classification criteria for environmental and health effects materials. Separated into following subject areas: HM-145A, and Project No. 274-78.
- Docket HM-145A: Would establish new standards and procedures for the transportation of hazardous waste materials. - FINAL RULE, September 1979.
- Project 274-78: Proposed new classification for materials designated by the Environmental Protection Agency as hazardous polluting substances under the Clean Water Act. - NPRM, January 1979.
- Docket HM-159: Proposal to add the name of materials to the Hazardous Materials Table that are known to be too hazardous to be permitted in commercial transportation. - NPRM, March 1979.
- Docket HM-118: Proposed new standards for classifying a material as a flammable solid. Action deferred pending further review. Review - August 1979.
- Docket HM-161: New standards for establishing appropriate shipping descriptions and hazard classifications for many detonators which are currently used in commercial service. - FINAL RULE, May 1979.
- Project 186-72: Proposed listing of each organic peroxide in §172.101, packaging requirements for each organic peroxide, and other shipping conditions required. - NPRM, October 1979.
- Project 160-71: Development of new standards for classifying a material as an oxidizing material. - ANPRM, July 1979.

PORTABLE TANK SAFETY/INTEGRITY

Docket HM-167: Proposed standards for new specifications for intermodal portable tanks and procedures for the use of these portable tanks for certain hazardous materials. - FINAL RULE, April 1979.

MODAL OPERATIONS (RAIL/HIGHWAY/WATER/AIR)

Docket HM-168 Proposed standards for the safe operation of aircraft having certain hazardous materials aboard. - FINAL RULE, April 1979

Project 277-78: Proposed odorization requirements for certain compressed gases. - NPRM, November 1979.

Project 259-78: Proposed amendments concerning track standards and car placement. See Hazardous Materials Emergency Response/Communications.

Project 284-78: Protection for Devices and Appurtenances on Cylinders Mounted on Motor Vehicles. - NPRM, February 1979.

PACKAGING SAFETY/INTEGRITY

Docket HM-117: New specification for glass carboy in polystyrene foam packaging for certain hazardous materials; and deletion of obsolete specification packagings. - FINAL RULE, January 1979.

Project 235-74: Proposed revision and simplification of requirements concerning the inspection, testing, requalification and use of compressed gas cylinders. - NPRM, November 1979.

Project 278-78: Proposal to authorize 55 gallon capacity plastic drums and authorization for use with certain hazardous materials, possibly affecting Spec. 34. - NPRM, April 1979.

Docket HM-74A: Discontinuance of interested inspectors to perform inspections and testing of domestically manufactured low pressure gas cylinders. - FINAL RULE, August 1979.

Project 228-73: High Pressure Aluminum Cylinder Specification. - NPRM, September 1979.

B. MAJOR PROGRAM AREAS: REGULATORY EFFICIENCY

SIMPLIFICATION/CONSOLIDATION/ELIMINATION OF REGULATIONS

- Project 261-78: Proposed simplification and recodification of the existing operating procedures for transportation of hazardous materials by motor vehicles as prescribed in Part 177 (49 CFR). - NPRM, March 1979.
- Docket HM-169: Proposed consolidation, simplification and recodification of the existing requirements applicable to the transportation of radioactive materials. - NPRM, January 1978.
- Docket HM-166: Adjustments to regulations of general applicability to include recodification, classification and listing. - NPRM, approximately every four months, FINAL RULE, approximately every two months thereafter.
- Project 276-78: Amendments to eliminate tank car stenciling requirements which duplicate or conflict with existing marking requirements. - FINAL RULE, February 1979.
- Project 279-78: Proposed consolidation and revision of requirements for military and commercial explosives by vessel into 49 CFR and adoption of UN scheme for classification and compability of explosives for water mode. - NPRM, June 1979.

TECHNOLOGICAL INNOVATION/FACILITATION OF TRANSPORTATION

- Docket HM-139: Incorporation of provisions from selected exemption applications or existing exemptions and incorporation of miscellaneous minor changes based on petition requests. -NPRM, approximately every three months, FINAL RULE, approximately every two months thereafter.
- Docket HM-156: Deletion of requirement that certain seamless cylinders be hydrostatically tested prior to flattening test; incorporation of requirements that longitudinal axis of cylinder be perpendicular to knife edge. - FINAL RULE, January 1979.

Project 280-78: Development of performance standards applicable to specification bag packagings.
- ANPRM, October 1979.

MINOR REGULATORY CHANGES/TERMINATIONS

Docket HM-22: Matter incorporated by reference. -NPRM, approximately every six months, FINAL RULE, approximately every two months thereafter.

Docket HM-163: Withdrawal of certain delegations of authority to the Bureau of Explosives. - NPRM, approximately every three months, FINAL RULE, approximately every two months thereafter.

REGULATIONS SELECTED FOR REVIEW

Project 281-78: Matches (49 CFR 173.176). Review to determine if there is a need to simplify and clarify present requirements. January 1979.

Project 282-78: Electric storage batteries, wet (49 CFR 173.260). Review to determine if there is a need to simplify and clarify present requirements. February 1979.

Project 283-78: Charcoal (49 CFR 173.162). Review to determine if there is a need to simplify and clarify present requirements. February 1979.

Project 118-71: Flammable solid; definitions and criteria (49 CFR 173.150). Review necessary because of a lack of an objective regulatory standard. August 1979.

Docket HM-51: Toxic materials; definitions and criteria (49 CFR 173.326). Review necessary because of need for a more objective regulatory standard. September 1979.

SECTION II

MATERIALS TRANSPORTATION BUREAU
RULEMAKING SCHEDULE

I. MISSION GOAL: PUBLIC HEALTH/SAFETY-PIPELINE TRANSPORTATION

A. MAJOR PROGRAM AREAS: PUBLIC SAFETY

LIQUIFIED NATURAL GAS (LNG) SAFETY

Docket OPSO-46

Proposed standards for the siting, design and construction of LNG facilities. - NPRM, February 1979.

Proposed standards for the security operation, and maintenance of LNG facilities. NPRM, March 1979.

HIGHLY VOLATILE LIQUIDS PIPELINE SAFETY

Docket PS-53:

Proposed standards for the spacing of valves and the installation of other devices so as to minimize the amount of highly volatile liquids, such as LPG, that can spread into populated areas after a spill.
- FINAL RULE, June 1979.

Docket PS-51:

Proposed criteria for carrier's plans for preventing and handling emergencies involving pipelines carrying highly volatile liquids.
- FINAL RULE, March 1979.

Docket PS-55:

Proposed hydrostatic testing requirements to assure the integrity of existing pipelines carrying volatile liquids. - FINAL RULE, September 1979.

Docket PS-56:

Gather information regarding possible need for more stringent requirements for design and construction of pipelines carrying highly volatile liquids. - ANPRM, January 1979.

PLASTIC PIPE SAFETY

Docket PS-54: Proposed standards for testing and qualifying joining procedures and personnel to ensure the integrity of plastic pipe joints in gas pipelines. - FINAL RULE, March 1979.

PIPELINE WELDING/OTHER SAFETY CONCERNS
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Project 181-8: Revoke requirement for retention of radio-graphic film of girth welds on liquid pipelines. - NPRM, November 1979.

Project 141-6: Increase the allowable temperature for heat treatment of hard spots on gas pipe to reflect improved steel technology. - NPRM, July 1979.

Project 210-9: Locate longitudinal weld seams in liquid pipeline in upper half of pipe. - NPRM, October 1979.

Project 203-8: Develop criteria for qualifying the use of certain pipeline components other than pipe. - NPRM, October 1979.

Docket OPSO-48: Construction requirement for offsetting longitudinal weld seams on adjacent pipe lengths in liquid pipelines would be revoked. - FINAL RULE, December 1979.

Project 211-9: Require operations to have procedures to protect facilities affected by blasting. - NPRM, November 1979.

Project 212-9: Gather information regarding the need for operators to maintain maps and records to identify the location, size, and operating pressure of all pipelines. - ANPRM, July 1979.

Project 213-9: Require operators to identify a pipeline by pressure monitoring or other means before performing a hot tap on it. - NPRM, September 1979.

- Project 188-8: Gather information regarding the need for procedures and instrumentation in monitoring gas odorants levels. - NPRM, January 1979.
- Project 180-8: Amend gas leak survey requirements to be more in accord with safe practices. - NPRM, August 1979.
- Project 215-9: The adequacy of existing standards concerning interior piping would be examined and new standards may be prepared. - ANPRM, December 1979.
- Project 218-10: Operators would be required to participate in a program to prevent excavation damage to underground gas and liquid pipelines. - NPRM, May 1979.
- Project 214-9: Require pressure monitoring equipment for gas distribution systems served by a single district pressure regulation station. - NPRM, May 1979.

B. MAJOR PROGRAM AREAS: REGULATORY EFFICIENCY

SIMPLIFICATION/CONSOLIDATION/ELIMINATION OF REGULATIONS

- Docket OPS-49: New reporting requirements would be established to provide additional and more appropriate information about gas safety problems and to obtain leak reports from certain gas systems not now covered. - FINAL RULE, March 1979.

TECHNICAL INNOVATION/FACILITATION OF TRANSPORTATION

- Docket PS-52: Proposed standards the frequency of inspection necessary for determining the effectiveness of cathodic protection on gas transmission lines. - FINAL RULE, November 1979.

- Project 82-4: Relax minimum period for hydrostaatically testing liquid pipelines from 24 to 8 hours. - NPRM, August 1980.

MINOR REGULATORY CHANGES/TERMINATIONS

- Project 157-7: Update documents incorporated by reference to later published editions. - NPRM every six months with FINAL RULE three months later, January 1979, to January 1980.
- Docket OPSO-39: Proposal regarding the need for additional rules governing occupational safety and health would be withdrawn. - WITHDRAWAL, March 1979.

REGULATIONS SELECTED FOR REVIEW

- Project 216-9: Line Markers (49 CFR 195.410). The requirement for installation of markers at navigable waterways needs clarification as indicated by extent of interpretations. July 1979.
- Project 217-9: Hydrostatic Testing (49 CFR Part 195, Subpart E). There is a need to clarify present standards as indicated by extent of interpretation. August 1979.
- Project 218-9: Welding requirements (49 CFR Part 195, Subpart D). Present requirements to be examined in light of changes in technology. December 1979.
- Project 182-2: Petroleum Gas systems (49 CFR 192.11) There is a need to eliminate inappropriate regulations or conflicts in present regulations. April 1979.
- Project 219-8: Welding requirements (49 CFR Part 195, Subpart E). Present requirements to be examined in light of changes in technology. June 1979.
- Project 220-8: Maintenance of Gas Pipelines (49 CFR Part 192, Subpart M). Present maintenance standards need clarification. June 1979.

REGULATORY DEVELOPMENT PROGRAM PERFORMANCE

The concluding discussion contained in the 1978 Regulatory Review and Development Plan stated that "through experience and a review of its performance in the months and years ahead," MTB had hoped to avoid any major variations in its rulemaking schedule. It was further pointed out that although actual publication dates appearing in the schedule of rulemaking actions might have to be advanced or retarded slightly, MTB fully expected to publish in the Federal Register the rulemaking actions that had been scheduled.

The 1978 Plan also stated that once a rulemaking action was placed in the Schedule, the completion or the programmed resolution of that action through all phases of the rulemaking process -- ANPRM, NPRM, FINAL RULE -- would take precedence over all other new candidates for rulemaking that might otherwise appear in each succeeding Schedule.

To date, the Plan has been successful in attaining these two procedural rulemaking objectives. Efforts and inquiries by interest groups to determine the relative standing of petitions and proposals, or to speed up the processing of such proposals, have been successfully resolved once these proposals have been placed within the context of the priority system contained in the Plan. Except for several minor rulemaking actions, no new actions were placed on the schedule. It is true that it proved necessary to reschedule the publication in more than half the rulemaking actions, due to an underestimate of the time planned for completing each scheduled phase of the individually specified rulemaking actions.

On average, the initial Plan had underestimated the publication dates by two months; this correction factor has been incorporated into the new Schedule of rulemaking actions which should, accordingly, reflect less variability.

The initial Plan also stated as one of the more fundamental and long-term procedural objectives of regulatory development placing greater reliance on, and increased coordination between, the operating administrations and the MTB. Although MTB has co-responsibility with the operating administrations in the formulation and issuance of hazardous materials regulations pertaining to a single mode of transportation, MTB also has the responsibility to review the intermodal implications and impacts associated with all rule-making actions. Success in the attainment of this objective was -- and continues to be -- based on the assumption that the operating administrations can and will play a larger role in MTB's hazardous materials rulemaking activities.

The likelihood of realizing this objective of the initial Plan has been improved by the establishment of a Standing Committee on Hazardous Materials to provide a departmental focal point for execution of all hazardous materials programs. This committee composed of Secretarial Officers and heads of operating administrations will serve as the Secretary's principal source of advice on all aspects of hazardous materials including policies, legislation and resource allocation, and strengthen the coordination and cooperation between the various operating administrations.

PRIORITY PROGRAM OVERVIEW

This attachment to MTB's Regulatory Review and Development Plan presents an overview of the Bureau's first seven priority safety program areas in hazardous materials and pipeline transportation. It provides statistical data for each safety program area, and relates the safety program areas to different functional activities of the Bureau — rulemaking, research and development, and training and education. For each MTB functional activity associated with major safety program area ongoing or planned projects are identified.

PRIORITY PROGRAM AREA: Cargo Tank Safety and Integrity
Transportation and Safety Profile

In sheer physical number, tank trucks and trailers are a very small percentage of the total number of commercial highway vehicles in operation. Of the more than 27 million trucks of all types currently in operation — auto transport trucks, furniture vans, pickup trucks open top vans, dump trucks — only about 1.5 million (five percent) of these vehicles are engaged in the transportation of hazardous materials on a more or less routine basis. And approximately 350,000 or 1.3 percent of the total represent tank trucks carrying hazardous materials.

However, as a percent of the total number of deaths and injuries caused by all releases of hazardous materials, tank truck and trailer accidents are the chief contributors. On an average annual basis, they account for 79 percent of all deaths and 23 percent of all injuries sustained — excluding pipeline accidents. Based on historical data, 22 deaths and 591 injuries per year on average have resulted from accidents involving hazardous materials transportation. The accident statistics collected by MTB reveal that essentially only four of the more than 100 hazardous materials carried by these vehicles are involved in the majority of these accidents — gasoline, liquid petroleum gas, sulfuric acid and anhydrous ammonium.

Considering the vast amount of shipments involved with these materials — 24 million tons of anhydrous ammonium, six million tons of sulfuric

acid, 123 million tons of gasoline, 100 million tons of LPG — these accident statistics — although indicating that the transportation of these hazardous materials has been relatively safe — do not provide grounds for complacency. There is a very real continuous concern over the catastrophic potential as well as the annual death and injury rates involved in the transportation of such materials.

Rulemaking Schedule

The rulemaking schedule relating to cargo tank safety is as follows:

Docket HM-115: Proposed standards and procedures for the transportation of cryogenic liquids. NPRM, February 1979.

Project 270-78: Development of minimum driver training requirements necessary to prevent unintentional releases of hazardous materials. - ANPRM, March 1979.

Project 271-788: Development of standards and periodic tests to prevent rupture of hoses used to load and unload cargo tanks. - ANPRM, May 1979.

Project 272-78: Proposed revision of attendance requirements to include transportation activities other than loading and unloading. NPRM, July 1979.

Research and Development Efforts

MTB has the following research initiatives planned in support of its effort to improve cargo tank safety:

Methods of Reducing Leakage Occurring in Tank Truck Overtums:

This study is expected to suggest technological solutions to the structural problems associated with tank trucks.

New Approaches for Controlling Pressurized Liquefied Flammable Gas Releases:

This study is expected to suggested solutions to the problem of controlling liquefied compressed flammable gas spills from ruptured bulk containers.

Computerized Model of the National LPG Transportation, Distribution and Storage System:

The model will be developed in an effort to gain an overall picture of current and potential problem areas associated with LPG transportation.

In addition to the above research initiatives, the Department's Federal Highway Administration has in progress a study designed to provide guideline criteria for State and local jurisdictions to establish hazardous materials routing.

Training and Education

Basic training in cargo tank safety is included in the introductory hazardous materials inspection course offered by the Transportation Safety Institute and in hazardous materials "awareness" seminars presented around the country. MTB recognizes the need for more advanced training of Federal, State and industry personnel involved in tank truck transportation and has tentative plans to develop such a course.

PRIORITY PROGRAM AREA: Rail Tank Car Safety and Integrity

Transportation and Safety Profile

Of the total of approximately 168,000 tank cars in operation, 81 percent, or 134,000, transport hazardous materials at some point during the year. Tank cars carry a total of 55.4 million tons of material annually, of which 35.0 million tons are hazardous. In terms of ton-miles, the tank car fleet accounts for only four percent of all ton-miles generated by the rail system, clearly not a significant figure. The potential for disaster implied in tank car transportation, however, is significant indeed. Releases from derailed tank cars in 1977, for example, resulted in 14 evacuations affecting an estimated 19,000 people. This is an indication of the number of people that are exposed to the dangers involved in the transportation of hazardous materials by tank car — a clear potential for catastrophe is present in every tank car derailment.

Because of the potentially high consequences resulting from tank car accidents, tank car safety is one of the top priority program areas for hazardous materials transportation set by MTB. Aside from track defects, equipment and human failures are the leading causes of accidents to tank cars. The MTB regulatory program is thus designed to reduce equipment failure and minimize the rate of human error in transporting hazardous materials by tank car. Additionally, in anticipation of a large increase in the transportation of cryogenic liquids, MTB has proposed standards and procedures for the transportation of cryogenic liquids by tank car.

Rulemaking Schedule

MTB's rulemaking schedule as it relates to tank car safety is as follows:

Project 264-78: Consideration of possible changes to current safety performance standards for DOT specification 105 tank cars. NPRM, March 1979.

Project 259-78: Proposed amendments concerning tank car safety appurtenances. See Hazardous Materials Emergency Response/Communications.

Docket HM-115: Proposed standards and procedures for the transportation of cryogenic liquids. NPRM, February 1979.

Research and Development Efforts

MTB plans to initiate a research effort towards development of a transportation profile of rail tank cars and containers. This study will detail the current state-of-the-art of tank car transportation, including the extent to which tank cars are utilized as vehicles for hazardous materials transportation. The product of this research effort will strengthen MTB's understanding of the tank car industry and its fleet operations and provide background support for its regulatory program.

The Federal Railroad Administration's Office of Safety is utilizing the nationwide transportation corridor density maps to determine the geographical location and incidence of rail accidents. The accident data will show geographic distribution of hazardous materials accidents, among other variables, and an effort will be made to correlate the data to estimate the risks and exposure involved in hazardous materials transportation by rail.

Training and Education

The MTB's training program in hazardous materials transportation is targeted toward distinct groups -- hazardous materials inspectors (Federal, State, industry) and emergency response personnel.

Basic training in rail tank car safety is included in the introductory hazardous materials inspection course offered by the Transportation Safety Institute and in "awareness" seminars presented around the country. There is a recognized need for more advanced course work in the field.

PRIORITY PROGRAM AREA: Emergency Response/Communications

Safety Profile

Accidents and incidents involving hazardous materials in highway, air, rail, and waterway transportation and related activities require that emergency services personnel (fire departments, law enforcement officers, rescue squads) be knowledgeable of the hazards in order to permit use of optimum control tactics to minimize risk and damage to life, property, and the environment.

The half hour following a spill is the most critical period for its containment. Each accident is unique, and the local situation must be fully evaluated on the scene before the most appropriate action can be instituted.

The first half hour is also the most critical period in terms of human error rate. Studies have shown that in a high stress operation, such as responding to a major accident, human error is almost a certainty during the first five minutes and decreases to one chance in ten after the first thirty minutes.

In an effort to minimize human error as much as possible in responding to hazardous materials accidents, MTB will direct its rulemaking efforts in this area to requirements for clear and simple labeling of hazardous materials carriers and packages, and for the availability of shipping papers and other aids for use in hazardous materials emergencies.

Rulemaking Schedule:

The following is MTB's rulemaking schedule for the area of Emergency Response/Communications:

- Project 266-78: Proposed incorporation of shipping descriptions and serial numbers from United Nations Regulations covering the transportation of dangerous goods. - NPRM, March 1979.
- Docket HM-126: Development of a numerical identification code for hazardous materials for use in emergency situations. - ANPRM, March 1979.
- Project 259-78: Proposed standards concerning the availability of HM shipping papers to emergency response personnel, car placement requirements, compliance with track standards, and tank car safety appurtenances. - NPRM, February 1979.
- Docket HM-151: Incorporation of color specifications for hazard warning labels printed directly on a packaging. - FINAL RULE, January 1979.
- Project 273-78: Development of changes to shipping papers, marking, labeling, and placarding requirements, and consideration of numerical identification code for hazardous materials for use in emergencies. - ANPRM, March 1979.

Research and Development Efforts

MTB plans a study designed to obtain data on selected hazardous materials accidents and the containment procedures employed by emergency response personnel at the scene. The study will involve a detailed analysis of each accident to determine procedural strengths and weaknesses and to point up areas where improvement may be necessary.

Training and Education

Perhaps the most effective method of minimizing human error in dealing with hazardous materials spills is to assure that emergency response personnel are trained to deal with such emergencies. To this end, MTB

distributes the "Emergency Action Guide for Selected Hazardous Materials" to all types of emergency services, organizations, and to industry. An expanded version of the Guide, covering approximately 1,600 hazardous materials, will be available for distribution in June 1979.

A 20-hour course on "Handling Transportation Emergencies" was developed under DOT contract by the National Fire Protection Association, and has been made available at no charge to all State governors for further distribution within States. Additional course material on radioactive material and pipeline emergencies is being developed under contract.

MTB plans to develop a training course aimed at volunteer firemen which will deal with problems faced by these emergency services personnel in dealing with hazardous materials accidents. It is anticipated that this course will eventually reach several million of the nation's volunteer fire-fighters.

PRIORITY PROGRAM AREA: Radioactive Materials Transportation

Transportation and Safety Profile

On average, 2.5 million packages containing radioactive material are shipped each year, usually by truck, rail or air. Eighty percent involve small quantities of nuclear isotopes, and perhaps 2,000 consist of shipments to and from nuclear power plants.

To date, no injuries or deaths of a radiological nature have resulted from the transportation of nuclear materials. The future, however, will see an enormous increase in radioactive materials transportation — perhaps as much as 200 percent by 1980. A study sponsored by the Nuclear Regulatory Commission concluded that there would be a three-fold increase in the number of people exposed to nuclear shipments between 1975 and 1985.

The expected increases in radioactive materials transportation and consequent increases in the numbers of people exposed to its hazards render a discussion of the catastrophic potential much more than academic. Some studies have estimated that an accident involving nuclear material could result in as many as 3,300 fatalities and a total decontamination cost of more than two billion dollars. There is also the possibility that a small leak in a container of radioactive material would expose large numbers of people to small doses of radiation over a sustained period of time.

Rulemaking Schedule

The rulemaking schedule relating to radioactive materials transportation is as follows:

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|-----------------|--|
| Docket HM-152: | Revision of certain sections of Part 175(49 CFR) to reduce the exposure of passengers to radioactive materials carried aboard aircraft.- <u>FINAL RULE</u> , April 1979. |
| Docket HM-164: | Would establish routing requirements for highway carriage of radioactive materials.- <u>NPRM</u> , July 1979. |
| Project 263-78: | Proposed methods to reduce radiation exposure levels to transportation workers. - <u>NPRM</u> , June 1979 |

Research and Development

MTB has the following research efforts in progress or planned:

Observation and Surveillance of RAM Shipments:

This study is designed to provide the technical and operational backup to assure the safety and integrity of RAM packaging, specifications, and hardware. Efforts are directed towards observation of package conditions, radioactive levels, exposure of transportation workers, and package handling in order to determine regulatory requirements.

State Programs for Surveillance of RAM:

This is a joint program with the Nuclear Regulatory Commission to help States establish and operate their own compliance and enforcement programs for RAM transportation.

Nuclear Waste Transport:

This study, conducted in conjunction with the Federal Railroad Administration, is designed to assess problems and hazards, and develop regulations for safe transportation of nuclear waste. First efforts involve fire testing of spent fuel casks.

Training and Education:

MTB provides basic information concerning radioactive materials transportation to modal operators and inspectors in its courses conducted at the Transportation Safety Institute, and in awareness seminars held in various locations throughout the country.

The MTB is in the process of developing a course entitled "Handling Transportation Emergencies Involving Radioactive Materials" aimed at improving the understanding and performance of early emergency response services personnel (fire departments, law enforcement officers, rescue squads, and others) whose actions strongly affect the controllable damage to life, property and environment, and public sentiment following a transportation incident involving radioactive materials. This course on radioactive materials is an add-on session to a basic hazardous materials emergency response course developed for the DOT. It is scheduled to be available in June 1979.

The MTB also has two additional radioactive materials averaging response projects underway which will be completed in 1979:

Radioactive Materials Transportation Incident Responders Guide Book. When completed in May 1979, this guidebook will be available to emergency service personnel and local, State and Federal personnel who have related responsibilities.

A Guide Checklist and Example Plan for Preparation of State and Local Emergency Response Plans for Transportation.

PRIORITY PROGRAM AREA: Liquefied Natural Gas Safety

Transportation and Safety Profile:

The Federal government has given several companies the approval to import large quantities of liquefied natural gas (LNG) into the United States. LNG is gas that has been reduced to a liquid state by cooling to -259 F. Its reduced nature makes it a practical method of transporting natural gas from its origin to the United States, and it simplifies storage of domestic natural gas, which increasingly is liquefied and stored until required for urban use in peak shaving facilities. Its physical properties, however, require special handling -- storage tanks, connecting pipelines, valves, and regasification equipment -- and present unique safety concerns.

The probability of a major LNG accident is very small, but the possible consequences of such an accident are enormous. Only two LNG accidents have occurred in the last 35 years, but these resulted in a total of 168 fatalities. The catastrophic potential implied in the transportation of LNG cannot be ignored.

The existing regulation for LNG safety is the National Fire Protection Association (NFPA) 59A. It is clear, however, that a more stringent Federal Standard concerning siting, design, and construction of LNG facilities and their maintenance and operation is required.

Rulemaking Schedule:

The rulemaking schedule for promulgation of LNG safety standards is as follows:

Docket PS-46:

Proposed standards for the operation and maintenance, including corrosion control, of LNG facilities (Part 192). - NPRM, March 1979.

Standards for siting, design, construction of LNG facilities (Part 193).- NPRM, February 1979.

Research and Development:

MTB has the following research efforts in progress or planned:

Risk Analysis of LNG Intermodal Transportation:

This study is designed to analyze risks associated with truck, rail, and barge transportation of LNG in the New England and Middle Atlantic area — including route specifications, probability analysis of accidental releases, evaluation of expected impacts, and risk profiles and comparisons.

Impact Assessment of Proposed LNG Regulations:

This study will provide a thorough analysis of the likely economic impacts of and alternatives to the standards to be developed concerning LNG.

PRIORITY PROGRAM AREA: Highly Volatile Liquids Pipeline Safety

Transportation and Safety Profile

In 1977, 179,600 miles of pipeline transported upwards of 900 million tons of liquid petroleum products. In terms of national fatality and injury rates, transportation by liquid pipeline appears to be a relatively safe endeavor — through eight years beginning in 1971, an average of five deaths and ten injuries have occurred each year. The accident rate for liquid pipelines has steadily declined during the same period.

MTB is concerned — despite the admirable safety record overall — that highly volatile liquids (HVL) in pipelines, such as liquefied petroleum gas, have caused a substantially higher percentage of deaths, injuries and property damage than less volatile liquid commodities. HVL pipeline accidents comprise only 10 percent of the total number of accidents involving liquid pipelines, but account for 66 percent of the deaths, 50 percent of the injuries, and 30 percent of property damage. Thus, a reduction in either the number or severity of accidents involving HVL would result in significant reductions in deaths, injuries, and property damage caused by liquid pipelines overall.

Rulemaking Schedule

The rulemaking schedule relating to Liquid Pipeline Safety is as follows:

Docket PS-53:	Regulate spacing of valves and other devices so as to minimize the amount of HVL spread into populated areas after a spill. - <u>FINAL RULE</u> , June 1979.
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Docket PS-51:	Regulate carriers plans for preventing and handling emergencies involving pipelines carrying HVL. - <u>FINAL RULE</u> , March 1979.
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Docket PS-55:

Testing requirements to insure the integrity of existing pipelines carrying HVL. - FINAL RULE, September 1979.

Docket PS-56:

Gather information regarding possible need for more requirements for design and construction of pipelines carrying HVL. - ANPRM, January 1979.

PRIORITY PROGRAM AREA: Plastic Pipe/Welding/Other

Safety Concerns

Transportation and Safety Profile

In 1977, 998.9 miles of pipelines transported in excess of 14 trillion cubic feet of gas — natural and synthetic gas, propane, and other petroleum gases — in the United States. Despite the extent of the gas pipeline system, fatalities resulting from gas-related accidents averaged only 36 annually over the last eight years.

Although the fatality rate has remained relatively constant, the accident rate has steadily increased over eight years as gas pipeline transportation has grown. This trend will almost certainly continue — pipeline mileage is expected to reach 1,102 by 1980 — and the potential for deaths, injuries, and property damage resulting from pipeline accidents will continue to be considerable.

Although plastic pipelines represent only 6 percent of total gas utility pipeline mileage, it is primarily used for distribution mains; and thus has associated with it higher population densities. Safety in this area continues to have a high priority.

Pipeline welding is an integral part of the safe operation of both gas and liquid pipelines and also has high priority in MTB's system of priorities.

Rulemaking Schedule

The Rulemaking schedule to help achieve MTB's regulatory development goal is as follows:

Plastic Pipe Safety

Docket PS-54: Rules of joining procedures, personnel training, or field tests to ensure the integrity of plastic pipe joints (Part 192). - FINAL RULE, March 1979.

Pipeline Welding/Other Safety Concerns

Project 181-8: Proposed rule for revising requirements for retention of radiographic films (Part 192). - NPRM, November 1979.

Project 210-9: Locate longitudinal weld seams in liquid pipe in upper half of pipe. - NPRM, October 1979.

Project 218-10: Operators would be required to participate in a program to prevent excavation damage to underground gas and liquid pipelines. - NPRM, May 1979.

Project 141-6: Proposed rule for revising the allowable temperature heat treatment of hard spots to reflect improved steel technology (Part 192). - NPRM, July 1979.

Project 203-8: Proposed rules for qualifying the use of certain pipeline components other than pipe (Part 192). - NPRM, October 1979.

Docket PS-48: Final rule on construction requirements for offsetting of longitudinal weld seams (Part 195). - FINAL RULE, December 1978.

Project 211-9: Proposed rule to require operators to have procedures to protect facilities affected by blasting (Part 192). - NPRM, November 1979.

- Project 212-9: Gather information with respect to requirement for operators to monitor maps and records to identify the location, size and operating pressure of all pipeline (Part 192). - ANPRM, July 1979.
- Project 213-9: Proposed rule to require operators to identify a pipeline by pressure monitors or other means before performing hot taps (Part 192). - NPRM, September 1979.
- Project 188-8: Gather information regarding requirement for procedures and instrumentation for use in monitoring gas odorants (Part 192). - NPRM, January 1979.
- Project 180-8: Proposed rule to amend leak survey practices (Part 192). - NPRM, August 1979.
- Project 215-9: Gather information regarding adequacy of existing standards with regard to safety problems concerning interior piping (Part 192). - ANPRM, December 1979.
- Project 214-9: Proposed rule to require monitoring equipment for systems served by a simple district pressure regulating station (Part 192). - NPRM, May 1979.

Research and Development

MTB has the following research efforts planned:

Development of Fracture Mechanics Standards for Pipeline Girth Welds:

This study will provide an alternative method for assuring weld integrity.

Failure Testing and Analysis:

This research effort provides specialized analysis to alternative causes of pipeline component failures.

Offshore Pipeline Technology:

This study is designed to assess special requirements of pipelines constructed offshore; results to be used in development of offshore pipeline regulations.

Factors affecting the Safety of Arctic Pipelines:

The research will develop means to identify and solve special problems peculiar to pipelines built in arctic environments; results to be used in development of arctic pipeline regulations.

Training and Education:

MTB will continue to train Federal, State, and industry personnel at courses offered by the Transportation Safety Institute—Safety Evaluation of Gas Pipeline Systems, Gas Pipeline Failure Investigation, Evaluation of Gas Pipeline Corrosion Control Systems, and Joining of Pipeline Materials. In addition, two-day industry seminars, conducted in cooperation with State agencies and directed toward the small industry operators, provide an overview of the safety requirements for gas pipeline systems.

Selected Bibliography

1972 Census of Transportation: Commodity Transportation Survey
Area Report 8, United States Summary.

Washington: U.S. Department of Commerce,
 Bureau of the Census, August 1975.

National Transportation Statistics - Annual Report.

Cambridge: Department of Transportation,
 Transportation Systems Center, September, 1978.

Pipeline Industry Magazine - Market Data 1977-78.

Houston: Gulf Publishing Company, May 1977.

Shipments of Nuclear Fuel and Waste---Are They Really Safe?

Washington, U. S. Department of Energy, August 1978.

Transportation of Highly Volatile, Toxic, or Corrosive Liquids by Pipeline.

Washington: U. S. Department of Transportation,
 Office of Pipeline Safety Operations, February 1976.

Transport of Radioactive Material in the U.S.

Washington: U. S. Nuclear Regulatory Commission,
 Office of Standards Development, May 1976.

7. QUESTION: What is being done to help volunteer fire fighters prepare for handling of a hazardous materials accident? How often might such an accident occur for a particular volunteer fire company? Where is most of the training coming from now?

ANSWER: In addition to the MTB developed 20-hour basic training course for emergency services personnel, ongoing rulemaking to require more information on the outside of vehicles and packages containing hazardous materials and the future distribution of an expanded, second generation Emergency Response Guide, MTB is developing a short training course to familiarize part-time and volunteer emergency services personnel with methods for handling hazardous materials.

The National Fire Prevention Association estimates there are 29,000 fire departments in the U.S., ranging in size from a paid staff of 12,000 personnel to 12 volunteers with one truck. Of the approximately 15,000 incidents reported to us annually, about 150 to 250 are of the size and nature that call for emergency service agencies (e.g. fire departments) to respond. These figures suggest that the chance of any particular fire department (paid or volunteer) encountering a transportation accident involving the release of hazardous materials are about once every 110 to 190 years. This, of course, is limited to transportation accidents and does not include fires, explosives or releases of hazardous materials at manufacturing or processing plants, in storerooms, warehouses, tank farms, or private automobiles. Nor does it take into account the concentration of industrial activities in some areas and the exclusion of them from others.

8. QUESTION: With respect to the trucking industry, what is the incidence of violations among carriers that are regulated by the ICC vis-a-vis carriers not so regulated?

ANSWER: The incident of violations in road checks among ICC regulated carriers, private carriers, and exempt commodity carriers with respect to equipment is relatively the same, but carriers of exempt commodities are found to have more hours of service violations.

9. QUESTION: Using the same comparative basis, what is the respective incidence of death, injuries, and property damage?

ANSWER: We are unable to statistically correlate the levels of violations to accident experience among these three types of carriage, because private and exempt carriers underreport accidents. Our belief is that exempt commodity carriage is higher in terms of their involvement in fatigue induced accidents.

10. QUESTION: Why is it higher in the nonregulated sector?

ANSWER: This stems from the transient nature of the business, which is dominated by sole proprietors, from excess hours of service, and outdated enforcement tools.

11. QUESTION: Is there adequate training of shippers and carriers to assure knowledge of and compliance with regulations. What is the Federal Government doing to provide such training? Does the public need education about hazardous materials transportation? If so, would this education be for safety purposes (what to do if . . .?) or is it needed to reduce the emotional concerns of the public? How should such an educational effort be carried out?

Futher, does the Department have an effective program to make certain that shippers and carriers have knowledge of the Department's regulations, and does the Department make certain that drivers and handlers of hazardous materials know the regulations:

ANSWER: In past years, a substantial portion of MTB's hazardous materials training resources were directed at the regulated population (i.e., shippers and carriers of hazardous materials).

Today, training emphasis is being placed on (1) development of training materials in the fields of emergency response and shipper/carrier responsibilities for delivery by non-MTB personnel in non-MTB funded training sessions; and (2) MTB has funded training of Federal and State inspectors through the DOT Transportation Safety Institute at Oklahoma City, Oklahoma.

The industries involved in the production, use and movement of the hazardous materials which stimulate public concern should bear the burden of public educational efforts to dispel those concerns. To the extent that MTB produces studies, reports, and training aids on those materials, they are public information and thus available for reproduction and distribution by those industries.

Likewise, shippers, carriers, and their trade associations are looked to by MTB to sponsor or perform training of the regulated public using the materials developed by MTB with Federal funds.

12. QUESTION(S):

PART A: What is the degree of monitoring and inspecting carrier and shipper handling of hazardous materials to determine if additional regulations or enforcement activities are needed? What percentage of carriers are checked annually? What percentage of shippers are checked annually? What percentage of vehicles and rail cars transporting hazardous materials are checked annually? Is there a program to do random inspections or are they done selectively according to size and type of carrier or shipper?

PART B: Is there sufficient staff capability in DOT to carry out an effective monitoring and inspection program? What is needed for the various modes?

ANSWER: Accident/incident report information is required by our regulations and indicates to us that the vast majority of container failures are due to mishandling in transit--perhaps as high as 85%. Material failures are infrequent. In any case, the true measure of compliance by a container manufacturer is whether or not the containers he markets meet the standards. This, of course, can be monitored without actually performing an on-site inspection of the manufacturer's facility. Such on-site inspections are made selectively based on several factors including:

- . Modal administration inspectors observations of containers being handled by carriers which they inspect.
- . Accident/incident report trends.
- . Selective testing of sample containers.
- . Reports or complaints from shippers who purchase and use containers.

We believe that by targeting our inspection visits in this manner, we are making the most efficient use of available inspection resources.

A recent study by the Congressional Research Service pointed out that "For the 5-year period 1973 to 1977, the average annual casualties resulting from the transportation of hazardous materials have been 0 deaths and 5 injuries by water, 1 death and 6 injuries by air, 22 deaths and 445 injuries by highway, and 3 deaths and 255 injuries by railroad. These data indicated that the highway and railroad modes are the problem areas. In 1977, the DOT budget allotted to the U.S. Coast Guard 176 man-years of hazardous materials inspection time for a program that averages 5 casualties per year; to FAA 58.2 man-years for 7 casualties per year; to FHWA 59.4 man-years for 467 casualties; to FRA 26.3 man-years for 258 casualties."

The quoted figures cover a 5-year period ending nearly a year and a half ago. Since 1977, increased emphasis has been placed on inspection and enforcement in the two modes of transport where the casualty figures were the highest - highway and rail. There have been additional inspection personnel added to inspection staffs and more have been included in the budget request for Fiscal Year 1980. Additionally, there have recently been increases in the number of inspections performed per person-year. More specifically:

- . In 1978, FRA, with 12 additional part-time inspectors, increased by 50% over 1977 the inspections of tank cars and hazardous materials carrying freight cars.
- . In 1978, DOT as a whole increased hazardous materials enforcement actions by 77% over 1977. FHWA more than doubled its 1977 actions in the highway area.

- . In FY 1980 budget request, FRA has included five additional hazardous materials inspectors.
- . In FY 1980 budget request, FHWA has included 25 additional inspection personnel for its Bureau of Motor Carrier Safety. This represents a 10% increase in BMCS's total inspection force and can be expected to provide a proportional increase in available person-years devoted to hazardous materials inspections.

It is also appropriate to point out that the quoted person-years for the Coast Guard is almost entirely attributable to an extremely small percentage (4% - 20%) of several hundred persons' time. These are Coast Guard personnel who perform periodic licensing inspection of vessels that carry bulk hazardous materials and port safety personnel who regularly monitor a wide range of waterfront activities. Only in the marine and aviation modes are the transport vehicles (vessels and aircraft) required to be individually inspected and certificated by DOT personnel before going into service.

The percentage of carriers and shippers checked annually is almost impossible to answer. As to carriers almost all carrier companies involved in air, rail and truck modes are checked in some or more of their operations. However, no estimate is possible with Coast Guard for vessel carriage except bulk shipment which is close to 100%. Of the approximately 243 liquid pipelines in operation last year, about 50 were inspected, just over 20%.

As to shippers checked annually, the question is unclear and unanswerable. Every person in the country could be a shipper and there is no way to give an accurate reading or even estimate the total number of shippers.

Shippers

Each modal administration inspector who inspects a vehicle, rail, car, aircraft vessel or carrier's loading facility where there is a hazardous materials cargo present is also inspecting for compliance by the shipper of that cargo. For example, a Bureau of Motor Carrier Safety inspector who examines a truck carrying packages of hazardous materials will not limit his inspection to determining whether or not the carrier has placarded the truck, properly stored the materials in the truck and has shipping papers in the cab. He will also look to see whether the shipping papers properly describe the material, and whether the material is properly packaged, marked and labelled--each of which is a regulatory duty of the shipper. Should a violation be detected, the modal administration will take action against the shipper. Some of the largest hazardous materials penalties and criminal fines imposed to date have been initiated by the FHWA and the FAA against shippers.

MTB Inspection Staff

The Materials Transportation Bureau currently allocates 10 of its 74 available positions to enforcement efforts. This includes personnel who perform inspections required by regulation as a prerequisite to some container manufacturing activities as well as seven full-time compliance inspectors. They receive analytical and technical assistance as required from other elements in MTB.

Hazardous Materials Inspections and Investigations

	USCC		FAA		FHWA		FRA		MTB		Total	
	76	78	76	77	78	76	77	78	76	77	78	78
Operations/Facilities												
Carriers			11,796	11,892	6,506	2,963	1,662	1,521	3,131	2,208	2,014	34
Shippers						2,744	1,267	1,203	682	613	672	114
Container Manufacturers						178	194	95	44	41	109	80
Freight Forwarders									89	93	114	21
Waterfront												
Other	6,770	7,290	13,787									

Mr. ANDERSON. Right now, I want to ask another series of questions. How many employees does the Office of Hazardous Materials Transportation retain?

Dr. PALMER. Currently, we are staffed at 69 individuals of the allotted 74 for this year.

Mr. ANDERSON. Do you have a breakdown of those employees by functions?

Dr. PALMER. Yes. We have two in the office of the Director of MTB; 28 persons in the hazardous material regulation area; 14 in hazardous material inspection; 20 individuals in analysis, training and support activities. This should come up to our 75 allocated positions, including the chief counsel.

Mr. ANDERSON. I think you answered my next question. How many employees are authorized; is it 74?

Dr. PALMER. For the current fiscal year, we have 80 authorized; 75 in the MTB, one of which cannot be filled because of the ceiling that has been placed. We have three in the office of chief counsel and two in the policy administration area.

Mr. ANDERSON. How many inspections were made last year by inspectors assigned to your office, and also how many were made by the Bureau of Motor Carrier Safety, and then by FAA? How many inspections were made last year by inspectors assigned to your office?

Dr. PALMER. In the MTB, a total of 171 inspections were made, 169 of which were inspections and two were accident investigations. As I indicated to you earlier, the Bureau of Motor Carrier Safety carried out some 7,000 total inspections. The FAA carried out some 6,600 investigations, 6,500 of which were inspections and 150 were accident investigations.

Mr. ANDERSON. How many violations were detected?

Dr. PALMER. We do not keep track of that particular information on individual violations.

Mr. ANDERSON. Why not?

Dr. PALMER. The thing we do keep track of is the total number of cases that were put forward, and of that, we carried out some 3,600 individual cases, carried forward as a result of these investigations.

Mr. ANDERSON. I would think that for your own knowledge and procedure, you would want to know how many were actual violations and how many were just bookkeeping accidents, or just plain accidents.

How many enforcement actions were commenced, and with what result?

Dr. PALMER. In the enforcement actions, we had some 3,600 that were commenced this year; this is some 1,500 more than were started in 1977. For 1978, the total result is about three times as many penalties collected as during 1977, which amounted to some \$940,000 collected in 1978.

Mr. ANDERSON. Last year, there was authorized \$5 million for the purpose of carrying out the Hazardous Materials Transportation Act. How much did the Department request at the appropriations hearings?

Dr. PALMER. \$3,634,000.

Mr. ANDERSON. And how much was appropriated?

Dr. PALMER. \$3,634,000.

Mr. ANDERSON. With additional funds, could you better develop and implement the responsibilities imposed upon you by the Hazardous Materials Transportation Act?

Dr. PALMER. In certain areas, Mr. Chairman, some additional funding would be useful, particularly as we look at our response to emergency situations, our training programs, and to the ability to disseminate information to the general public with regard to the situation with hazardous material incidences.

Mr. ANDERSON. How could you improve the program with additional funds; do you have any more specifics other than what you just answered?

Dr. PALMER. We have given that some thought as we have gone through our program. We feel that the kind of improvement that we would be talking about would be the ability to provide training for another 1,000 students in hazardous material areas, and that comes to about \$300 per student to train them, so an additional \$300,000 in that area.

As we look at our future, with radioactive material shipments on an increase, we feel that two radioactive material inspector positions would be appropriate, and three positions to look at shippers and manufacturers of containers.

The work that we are doing in developing hazardous material emergency courses—we have added elements in radioactive materials and we would like to distribute these as soon as they are completed. Here, we see approximately 500 basic course packages and 1,000 radioactive material course packages—these run about \$350 for the basic package and \$150 for the radioactive material package.

Finally, looking at our Emergency Action Guide, we have updated that particular guide considerably in the last year to include numbering systems, other helpful bits of information and cross-indexing, so that emergency personnel can get at the information much more quickly. Here, we would anticipate circulating some 300,000 of these guides in a year and we feel that that would be a most useful increase. Our total for that is about \$1,175,000 to carry out those additional responsibilities.

Mr. ANDERSON. On page 142 of the hazardous materials report, it is stated that for the past 5-year period, the average annual casualties resulting from transportation of hazardous materials have been as follows: In water transport, there has been no deaths, 5 injuries; air transport, there has been 1 death and 6 injuries; highway transport, there have been 22 deaths and 445 injuries; rail transport, there have been 3 deaths and 255 injuries.

Do you agree with those statistics?

Dr. PALMER. Yes, sir.

Mr. ANDERSON. Why are they so disproportionate with respect to highways?

Dr. PALMER. I think as you have heard, it has to do with the large number of ton miles of hazardous materials shipped by highways; you simply have a greater volume flowing by highway than any other mode.

Mr. ANDERSON. And what can be done to lower those statistics, especially with respect to highways?

Dr. PALMER. In our analysis in trying to look at cause and effect, we find the major problem to be in the category I will term human error, and that has to do with the truck driver and with the people handling the truck. Here, it is a matter of continued training of the drivers by the companies, and carefully looking at the number of hours an individual will drive, and the time of day that a shipment will go out.

Generally, human efforts would be the greatest help in addressing that particular problem.

Mr. ANDERSON. Are existing staff levels adequate for the purpose of enforcing the program so as to reduce the number of casualties?

Dr. PALMER. We think that in the given environment, generally we have about enough people to carry out our responsibilities.

Mr. ANDERSON. What was the extent of property damage during the latest year for which you have statistics?

Dr. PALMER. The latest year is 1978, and the property damage, which would be that reported to have occurred to the actual truck, rail car, aircraft, vehicle or vessel, was \$16,135,000.

Mr. ANDERSON. Were any of the fatalities, injuries, or property damage directly attributable to the hazardous materials being transported?

Dr. PALMER. Yes. The deaths and the injuries that you cited in the statistical information are those that are attributed to the hazardous material being carried.

Mr. ANDERSON. So if they had been transporting hazardous materials but something else were to cause their death, not the hazardous materials, they would not be listed in this listing I just gave you?

Dr. PALMER. That is generally correct. If there is no spill or incident, then it does not appear in our data.

Mr. ANDERSON. So if a driver of a truck that has hazardous materials in it just goes to sleep and runs into a tree and gets killed, it is not considered one of these hazardous material deaths or casualties?

Dr. PALMER. That is how we think the data is reported. There is some problem in the highway mode but not in the others as to the actual cause of death in any of these incidents. For the other modes, that is correct; for highway, it depends on how it gets reported by the local authorities.

Mr. ANDERSON. In your statement, you refer to a memorandum of understanding which is going to be executed by DOT and the Nuclear Regulatory Commission. Could you tell the committee what quantity of radioactive materials move in interstate commerce?

Dr. PALMER. Currently, there are approximately 2 million packages of radioactive materials of all kinds moving in transit annually; 700,000 of these are in the limited or exempt categories. This would include luminous watches, smoke detectors, and things of that type. There are about just under a million packages of radiopharmaceuticals; there are 220,000 packages of type A and B industrial radiation sources that refers to the level of radiation.

There are 200,000 packages of nuclear fuel cycle material, not including waste. There are 150,000 packages of waste, mostly low-level spent resins, although we are not as certain of that figure as

we are of the higher order. Some 60 truck cask shipments--50 of spent fuel and 10 of irradiated hardware--took place during 1978, and 15 to 20 rail shipments took place.

Mr. ANDERSON. You may have answered my next part of that. How much is moved by each mode? Now, I think you did answer part of that, did you not?

Dr. PALMER. The rail mode carried 15 to 20 shipments, and there were some 60 in the truck, although the volume by rail is significantly higher than by truck.

Mr. ANDERSON. Can you designate which route a carrier must follow when transporting radioactive materials?

Dr. PALMER. We are currently in a rulemaking procedure, answering that particular question. It was raised, as you will recall, by the city of New York, in which they prohibited the transport of nuclear waste materials across the city from Brookhaven National Laboratory.

As a result of that and other actions taken by localities, we initiated an advanced notice of proposed rulemaking. We have taken testimony on this, and we expect to put out the proposed rule in about a month. We are not sure just what that rule will say at this time, although we are looking more and more definitively at the possibility of some routing requirements.

Mr. ANDERSON. Prior to this rulemaking decision, and also after you have written it up, what authority, then, would the State and local governments have over routing?

Dr. PALMER. The Hazardous Material Transportation Act provides for inconsistency rulings, and this means that while State and local governments may have requirements that exceed DOT's, if these are inconsistent with the Federal rules, the Federal Government has the authority to preempt.

Mr. ANDERSON. We are, in a sense, moving toward preemption in this field, is that it?

Dr. PALMER. Definition, I think, Mr. Chairman, rather than preemption at this time. We are attempting to work with the cities and other locales to define what kind of route-specific information we should have. We have noted in recent months, particularly with the city of New York, a willingness to talk to us about that particular kind of environment, rather than just a straight--

Mr. ANDERSON. Rather than have you preempt?

Dr. PALMER. Yes. We would like not to be in the business, I think, of being preemptive, if we can avoid it, because the States and locales have particular needs that general rules may not address. We would like to be in a cooperative mode with the political subdivisions, as we are in most instances.

Mr. ANDERSON. Recently, radioactive waste being transported from Three Mile Island near Harrisburg, Pa. was routed to South Carolina. It was turned back and rerouted to another destination. Now, using that as an example, please relate all the details of how that trip was regulated, what aspects of the trip and the equipment used were regulated by DOT, and what aspects were regulated by the Nuclear Regulatory Commission.

Dr. PALMER. Through the laws established by Congress, the Nuclear Regulatory Commission has the primary authority and re-

sponsibility for nuclear materials. By memorandum with NRC, we work with them whenever radioactive materials are transported.

In the particular case at hand, the materials were in DOT and NRC-approved containers, so that in the first instance, the containers holding the materials were approved containers. DOT got into the specific act because the initial loads were projected to be overweight, which required permits to be issued by the States.

DOT acted to facilitate this particular effort so that the trucks might move in interstate commerce with the appropriate permits. They were not, as I recall, overweight to any degree that would cause stress; it was a standard permit issuing by the States.

With regard to the shipments that were turned away from South Carolina, the Governor acted on the premise that materials in three of the trucks were from unit No. 2, rather than materials from unit No. 1, which had had a routine shutdown for maintenance. He acted to prohibit the materials of unknown origin to come into South Carolina. They were routed, instead, to the State of Washington to the Federal repository.

Since that time, the remaining materials from unit No. 1, have been sent to and accepted by the State of South Carolina for holding there. So it was a problem with materials of unknown origin. The Governor acted; we, in turn, responded and the materials were transported to a Federal repository.

Mr. ANDERSON. Counsel has a couple of points he wanted to make.

Mr. D'AMICO. Mr. Chairman, there has been continuous reference to a report prepared by the Library of Congress, Congressional Research Service, entitled "Hazardous Materials Transportation: A Review and Analysis of the Department of Transportation's Regulatory Program." It was prepared at the request of Senator Cannon. I respectfully offer it for the record.

Mr. ANDERSON. With no objection, it will be received and placed in the subcommittee file.

Mr. D'AMICO. Mr. Chairman, we have a statement of the American Farm Bureau Federation, with the request that it be incorporated in the record of these hearings; I offer it.

Mr. ANDERSON. With no objection, so ordered.

[The following information was received for the record:]

STATEMENT OF THE AMERICAN FARM BUREAU FEDERATION

Farm Bureau is a general farm organization with a total voluntary membership of over three million families in 49 states and Puerto Rico. Farm Bureau members are engaged in the production of every agricultural commodity that is produced commercially in the United States.

We recognize the need for reasonable regulation of the transportation of hazardous materials. However, we have been concerned for some time about the practical effect of the Act and DOT regulations on the day-to-day operations of farmers and ranchers.

In May 1978 we met with representatives of the Materials Transportation Bureau in our office to achieve a better understanding of the Act and Parts 100 to 199 of Title 49 CFR.

It was clear to us after that meeting that any farmer who transports material considered hazardous is covered both by the Act and by the regulations. He is required to have shipping papers to accompany such material, to train personnel to handle such material and to use approved placards on trucks hauling certain materials.

On June 2, 1978, we wrote to Secretary Adams, stating Farm Bureau's concern about the coverage of a million or more farmers and ranchers by the Act and

regulations. We stated that farmers, as a normal part of their operations, own trucks that are used to haul many of the substances listed in Parts 100 to 199 of 49 CFR. Ordinarily these materials are hauled for short distances of less than 50 miles and, for the most part, on roads with low traffic volume. With rare exceptions, most such materials are listed in Table II of the regulations.

We pointed out the enormous and costly task of trying to inform and educate a million farmers and several hundred thousand employees about the requirements of the regulations. We noted that neither DOT nor the Department of Agriculture had taken any steps to initiate or carry out such an educational effort. We suggested that DOT confer with USDA and work out ways of interpreting the Act to exempt from regulation the local hauling of Table II materials for use in agricultural production.

The present regulations do not recognize certain problems which exist in agricultural operations. For example, farmers often transport agricultural chemicals in spraying equipment on local roads between sections of a farm or two or more farms that are parts of the same operation. In such cases, there is the practical problem of where farmers would obtain the required shipping documents and placards for movements which can occur several times in a single day.

On July 17, 1978, we received a reply from L. D. Santman, director, Materials Transportation Bureau, which was barely responsive to our letter of June 2, and which failed to clarify the questions we had raised. Mr. Santman informed us that the Department interprets the Act "to apply to all interstate transportation of hazardous materials in furtherance of a commercial enterprise and to that intrastate movement of hazardous materials which affects such interstate transportation."

Section 171.2 of Part 171 says: "(b) Except as provided in 171.12, no person may transport a hazardous material in commerce within the United States unless that material is handled and transported in accordance with this subchapter."

Mr. Santman went on to say: "However, with few exceptions, the Department's Hazardous Materials Regulations, as reissued under the Act, apply only to interstate commercial carriers and their shippers. A carrier is an interstate commercial carrier if any of his carriage operations cross a state line, or involves carriage of a material that is consigned across a state line, for commercial purposes."

Section 171.8 of Part 171 defined "carrier" as a "person engaged in the transportation of passengers or property * * *. The term "interstate commercial carrier" used by Mr. Santman is not found in the Act or regulations.

Mr. Santman also implied that it would be up to the states to determine whether exemptions should be provided for truck movements of hazardous materials in farmer-owned trucks. We find no provision in the Act that permits a state to adopt regulations less stringent than federal requirements.

Mr. Santman did make it clear that, regardless of the current practice, the Department intends fully to carry out the mandate of the Act as it affects intrastate movement of hazardous material. He stated that any general exemption for farmers and agricultural operations "is more appropriately a legislative concern * * *"

It is difficult for us to believe that it was the intent of Congress to burden a million farmers and ranchers with this highly complicated Act and the resulting regulations. Therefore, we recommend that this Committee, as a part of your reauthorization of the Act, amend it to provide a reasonable exemption for Table II materials hauled in farmer-owned, not-for-hire trucks or in other farm equipment.

We believe that such an exemption can be worked out without any appreciable safety hazard to farmers, their employees or the general public.

We appreciate this opportunity to present Farm Bureau's views.

Mr. D'AMICO. Mr. Chairman, there is a paragraph in that statement which reads as follows:

We recognize the need for reasonable regulation of the transportation of hazardous materials. However, we have been concerned for some time about the practical effect of the Act and DOT regulations on the day-to-day operations of farmers and ranchers.

I understand that Mr. Santman is well acquainted with this particular problem, and I wonder if he briefly could describe for the record what it is.

Mr. ANDERSON. Mr. Santman, would you wish to respond to that inquiry?

Mr. SANTMAN. I think that, basically, when all of the words are boiled down in the statement that you referred to, what we are

really talking about are glass bottles of highly poisonous material that, under our regulations, are required to be packaged in cardboard boxes of heavy construction while they are moving in interstate commerce.

They frequently are packaged, maybe, half a dozen, 8 or 10 to a carton. When they are taken out of those cartons of properly packaged material and placed randomly in something like a paper bag or thrown about in a vehicle, we get very concerned, because we are talking about materials that are in a very concentrated form, a few drops of which, either ingested or even minimal contact with the skin, cause very serious problems, and even fatalities.

Our principal concern with these materials is that when they are taken out of their prepared packaging, which is frequently in case-lots, and broken down into smaller lots, they need to retain some of that same kind of protection that they have when they are shipped in caselots.

Second, the people that come in contact with them must know that they are dealing with very dangerous material. I think that what the Farm Bureau sees largely are the individual States having adopted our regulations and incorporating them by reference which we, by the way, do recommend to the States. They have adopted our regulations and are applying them to persons who, in many cases, go much beyond interstate commerce, and they are perhaps, in some of the individual States, applying them to individual private farm transportation.

Nevertheless, what we are really concerned about, and the guts of this whole problem, is the fact that we do have bottles of highly poisonous material, and that as long as they are in interstate transport for which we are responsible, we want to see those materials packaged well and we want to see that people understand they are dealing with a difficult product.

Now, fortunately, the pesticide industry, through its trade associations, have recently been coming forward with some proposals that we have under advisement. They provide for the development of a small, single-unit bottle type of package that would have the label on the outside indicating that it was a poison.

When you break up a six-pack, so to speak, this would be a small container to take the individual bottle and offer it protection. I believe that the Farm Bureau may well find some benefit if the proposals that are coming forward out of the Pesticide Institute bear up and we are able to see them provide the marketplace with a good, substantial, single-unit type package.

Mr. D'AMICO. Are there any studies or statistics which would indicate that the present practice among the members of the Farm Bureau is a hazardous one? Have there been any injuries or deaths of record?

Mr. SANTMAN. I am not sure that I understand your question, sir.

Mr. D'AMICO. Do you have a track record of shortcomings in the practice among the farmers that would predicate an approach different from that which they recommend? Do you follow?

Mr. SANTMAN. I am not sure that I do, but we are not in the business of regulating farmers; we are in the business of regulating the transportation of hazardous materials.

I have here on the table a typical and, I think, fairly representative kind of package that we are talking about. I have here a bottle that is empty, fortunately. It is a sample bottle of arsenic trioxide. This is the very simple type of packaging that we are talking about requiring these materials to be maintained in.

It is not complicated; it is not a great, elaborate packaging, but it does give protection for the glass container and it is labeled as poison. What we are talking about is when this caselot is broken up by somebody who is still engaged in interstate commerce—and I think perhaps some of the larger farm co-ops, in particular, do have vehicles that are engaged in interstate commerce. When they take a couple of these bottles, they must not just get thrown in the back seat or mixed up with heavy farm implements, susceptible to banging up against each other and breaking, because what is in here is, in many cases, a rather deadly poison.

All we are seeking is the continued protection of at least the level that this cardboard box offers. It is not that complicated.

Mr. D'AMICO. May the record indicate that the witness has with him a cardboard carton that is separated by sections of cardboard into a dozen different areas, each of which affords protection to the individual bottle. Thank you, Mr. Santman.

Mr. Chairman I have one other item, a paper to be presented to the First National Symposium on Transportation System Safety at the National Academy of Sciences. I believe it would offer excellent background.

Mr. ANDERSON. By whom?

Mr. D'AMICO. It is by a task force. I respectfully offer it for the record.

Mr. ANDERSON. With no objection, so ordered.

[The information follows:]

FIRST NATIONAL
SYMPOSIUM ON
TRANSPORTATION
SYSTEM
SAFETY

MARINE-HAZARDOUS MATERIALS

National Academy of Sciences
Washington, D.C.
May 7-9, 1979

MARINE TRANSPORT OF HAZARDOUS MATERIAL

HAZARDOUS MATERIAL DEFINED

In the consideration of all the materials or goods that might be entered into transportation, from the viewpoint of safety and potential hazard, all materials may be divided into two basic classes. (1) Those materials that present a sufficiently great hazard that they are considered unacceptable for transportation (there are a number of pure explosive compounds in this class). (2) Those materials that are judged to present an acceptable risk in transportation. The second class of materials may be further divided into those materials that may be considered safe for transport without any restriction, and those that are considered safe only under certain specified conditions. It is this latter group of materials that become generally known as hazardous materials. In order to specify the conditions under which these materials may be shipped, i.e., the condition of acceptable risk, it is necessary to impose some means of regulation. Hazardous materials can thus be defined as those materials that present an acceptable risk with regard to safety only when shipped under some specified condition. As a consequence of this qualification it usually becomes necessary to identify these materials in order that the restriction is not inadvertently removed at any point in the transport system.

- ALL MATERIAL 
- * ONLY UNDER SPECIFIED CONDITIONS = regulated material
 - * UNDER ALL ANTICIPATED TRANSPORT CONDITIONS = un-regulated

ACCEPTABLE RISK

The definition of an acceptable risk (or the reverse of this, an unacceptable risk), is usually arrived at by the consensus of a group, panel or committee of persons knowledgeable in the subject under consideration. This is a judgment call that is made numerous times in the development of a "safe" system for transportation. It is a judgment call that consists of many engineering factors that can be documented and verified on a factual basis; however, this aspect of the system is then merged with operational factors that involve people and, thus, only a consensus analysis of the actual safety of the system is usually possible. Time does not permit an extended analysis of either an "acceptable risk" or an "unacceptable risk," however our modern society has placed some new demands on us that may merit some discussion in this workshop. Let us assume that we have agreed on some criteria for an acceptable risk. There are a number of new factors that we are forced to consider as modifiers of our "acceptable risk." Such as:

- (a) Economics - inflationary cost to consumer, or unemployment as a direct result of some imposed regulation.
- (b) Pollution of environment
- (c) Quality of life

- (d) Emergency health benefits -- movement of heating fuels in cold weather -- movement of liquid chlorine to flooded area (water purification) -- movement of insecticide or pesticide to save or increase yield of major food crop
- (e) Depletion of natural resources -- use of steel instead of wood

HISTORY OF TRANSPORT

To what extent can the shipping history of an item be used to estimate its risk level in transportation? The DOT is continually subjected to the statement by both shippers and carriers that certain items have been shipped for many years without incident. Unless the item has been involved in some catastrophic incident that made national news (Texas City) the DOT has no way of checking the statement of safe shipping. In view of the rapidly increasing population at risk, the increasing traffic, increasing property and increasing property values, how much of the past shipping history of an item is applicable in today's world? One commodity that we are much aware of, the shipping history of LNG is much more extensive than many people realize. Over 4000 large shiploads have been made in the last 20 years in cryogenic tankers without incident. This shipping history may be more applicable than shipping histories of other materials that extend back fifty or more years with smaller quantities.

MARINE TRANSPORT

Does an "acceptable risk" or an "unacceptable risk" have a different meaning for marine transport than for other shipping modes? There are some special risks encountered in marine transport that are not common to land transportation. The most obvious difference is the captive crew aboard ship. You do not abandon a ship with the same degree of freedom that you leave a highway or rail transporter. Extensive efforts are made to save the ship in times of crisis that would not be considered for the land transport vehicle. Other significant differences include:

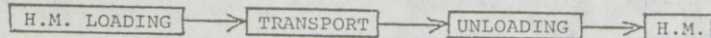
- exposure to any release of hazardous materials during transport will be a continuous exposure - seven-day week, twenty-four hour day, for the length of the voyage;
- the social isolation of the ship's personnel may cause emotional stress not common to shore personnel;
- working conditions frequently involve temperature and humidity extremes such that toxic effects of materials may be significantly different than those presented in airconditioned work environments;
- the physical stability of the work area is subject to change, dependent upon the weather and geographical location;
- quantities of materials may be very large, compared to other modes, and, thus, maneuverability and response of large vessels in an emergency is slow;

- the international nature of most shipments may present communication problems that do not exist routinely in other modes;
- except in a port area there is no emergency response team, firemen, or policemen available in emergencies. A ship must carry emergency rescue equipment and crewmen trained in its use.

Marine transportation has one material advantage over other modes of transport in emergency conditions---an extensive source of water that may be used to reduce the potential hazard of the cargo. Ships also have the potential of disposing of large quantities of material in areas of population density limited only to the ship's personnel.

THE TRANSPORT SYSTEM

The hazardous materials transport chain extends from the hazardous material loading facility to the hazardous material unloading facility. If we are talking about a container ship, the container stuffing may occur in Iowa, and the unloading may occur at some warehouse in the interior of Pakistan. A somewhat simpler transport chain exists when a tanker is loaded at an oil field and is off-loaded directly to a refinery in a distant port. In either event, the main building blocks in this event consist of:

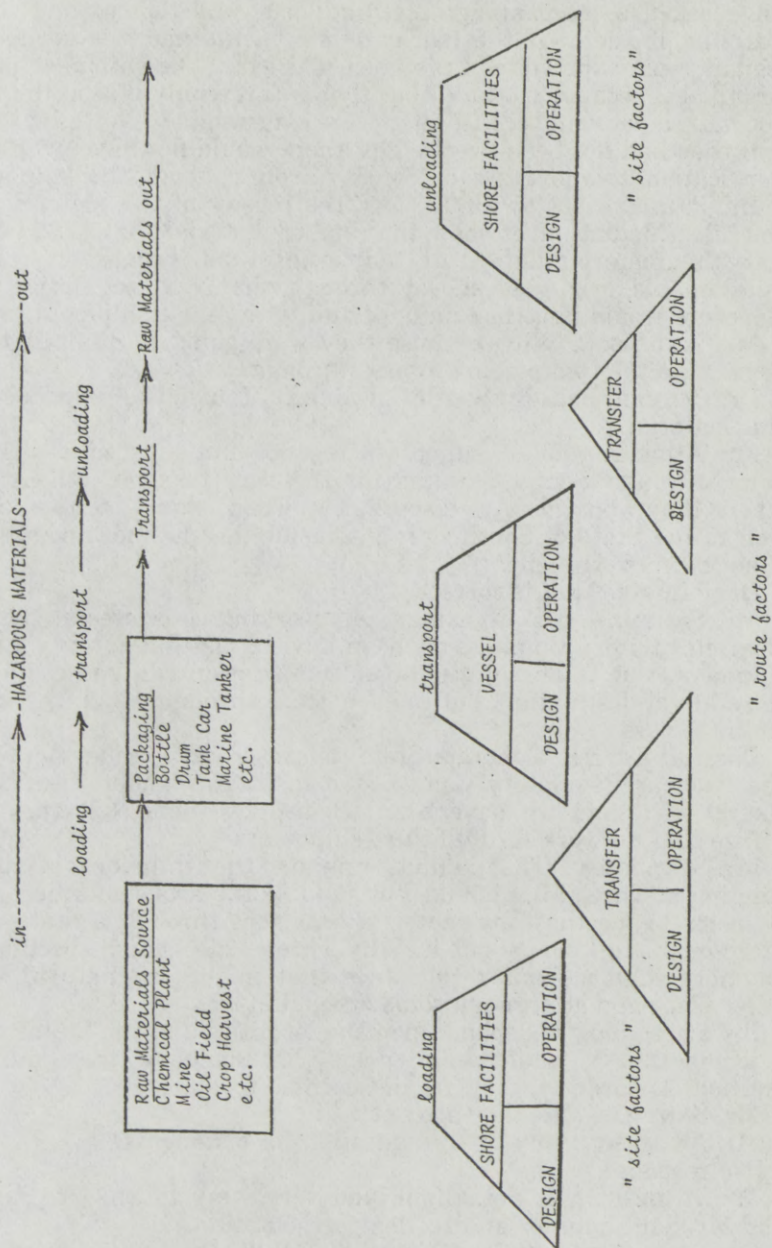


If this is an international shipment, only the loading or unloading phase will be completely under U.S. control. The geographical

location of the loading site and the unloading site are factors that must be considered as part of the system. The boundaries of the transport system that includes the use of containers--used in the sense of containerized freight--will be seen as much more extensive than most oil tanker shipments. Containerized freight may move by all modes of transport before reaching its destination. The container may be loaded and off loaded from truck, train or ship without direct handling of the hazardous materials as packaged and stuffed into this shipping container. These links in the chain might be further identified as primary and secondary hazardous materials loading and unloading operations. Just as we know that the ends of the transport chain are site dependent factors in the system, we also know that the specific routes selected for transport from site "A" to site "B" are significant factors in the system. The transportation system can be broken down into many components. The extent of this breakdown is limited only by the time and imagination of the analyst. A risk assessment can be made of each component of the system, and these judgment calls merged to evaluate the risk presented by the entire system. The acceptability of this risk may then be further modified because of economics, environmental factors, social needs, etc. Occasionally there is an emergency condition that requires a fast judgment call (risk assessment) of an entire system. Shipments made as a response to such a judgment call are usually quite limited as to the number of shipments, the route, or time period over which they may be made. Based on the limited data available to make risk assessments,

it is easy to question the need to spend large amounts of time and money for an analysis with results of unknown reliability. Perhaps the best answer to this question is that without an analysis of the problem, including data reliability, we may never be able to improve on our results and their reliability.

HAZARDOUS MATERIALS TRANSPORTATION SYSTEM



Mr. ANDERSON. There is another question, Doctor, that I should have asked a moment ago on the Three Mile Island and South Carolina incident. If the trucks or shipments had not been overweight, would the states have been notified of the shipment in the first place, because you said that that was the only reason the DOT got into the action, because they were overweight?

If they had not been overweight, there would not have even been notification to the State of South Carolina about the shipment?

Dr. PALMER. Not by DOT. Now, the receipt of the material and the bill of lading must show the type of material that is to be put into the material dump. At that point then, because it was of questionable origin as shown through the NRC regulation, the Governor would have had an opportunity to refuse shipment.

Mr. ANDERSON. Why, because they were going to dump it there or because they were going to pass through?

Dr. PALMER. Because South Carolina contained the repository for this material.

Mr. ANDERSON. Well, suppose it did not and suppose it was just going through South Carolina on the way to some other place where they were going to dispose of it. There would be no notification to the State of South Carolina about the shipment at all, had it not been overweight?

Dr. PALMER. That is correct.

Mr. SANTMAN. Mr. Chairman, our working associates at the Nuclear Regulatory Commission have advised us that for any future shipments out of Three Mile Island notification will go not only to the state of destination, but to each State through which the material is to pass.

There is a fairly elaborate State liaison officer arrangement that the Nuclear Regulatory Commission maintains under the Atomic Energy Act, and we have been advised by them that they will utilize that network for all future shipments.

Mr. ANDERSON. That sounds fine for the shipment of things starting at Three Mile Island, but suppose it starts somewhere else. It seems to me that any material that goes through a State, that State ought to know about it. Why Three Mile Island, specifically, anymore than a similar substance that might originate in some other place and go through some other States?

If we are going to depend upon the localities and the States to do a job in this, it would seem to me that somehow they must be notified. Apparently, they are not notified today.

Mr. SANTMAN. No, they are not.

Mr. ANDERSON. Any further questions or comments?

[No response.]

Mr. ANDERSON. If not, thank you very, very much, Dr. Palmer and Mr. Santman, for an excellent presentation.

Our next witness is Mr. Elwood T. Driver, the Vice Chairman of the National Transportation Safety Board, accompanied by Ludwig Benner, Chief of the Hazardous Materials Division, and Martyn Clarke, the Director of the Bureau of Technology.

Mr. Driver, we do have your prepared statement. You may read it or extemporize, however you wish.

TESTIMONY OF ELWOOD T. DRIVER, VICE CHAIRMAN, NATIONAL TRANSPORTATION SAFETY BOARD, ACCOMPANIED BY LUDWIG BENNER, JR., CHIEF, HAZARDOUS MATERIALS DIVISION; AND MARTYN V. CLARKE, DIRECTOR, BUREAU OF TECHNOLOGY

Mr. DRIVER. Good morning, Mr. Chairman and members of the committee. Before I begin my statement, I would like to introduce the members of the Board's staff with me today. On my right is Martyn V Clarke, Director of our Bureau of Technology, and on my left is Ludwig Benner, Jr., Chief of our Hazardous Materials Division.

I also have with me in support Mr. Roy Anderson, who is the Director of Evaluation and Safety Objectives, who is sitting behind me, and Mr. Bud Laynor, who is with the Vehicle Factors Division, and Mr. James Danaher, Operational Factors Division.

We have these extra people because of the duality of your committee today. You have some aviation people here and are also interested in surface-type transportation.

I appreciate the opportunity to appear today on behalf of the National Transportation Safety Board to discuss with you our views on the status of the administration of the Hazardous Materials Transportation Act of 1974.

In 1974, the Congress passed the Hazardous Materials Transportation Act. The stated policy of this act was to provide improved authority for the Secretary of Transportation to " * * * protect the Nation adequately against the risks to life and property which are inherent in the transportation of hazardous materials in commerce."

The Congress recognized that hazardous materials must be moved in each of the transportation modes while recognizing the public's right to be protected against unreasonable risks during the transportation of these hazardous materials. These are the reasons that the act was developed using a risk concept.

These are the cogent reasons that the Secretary of Transportation is directed by the act to identify unreasonable risks and establish a program to adequately control these risks.

The Safety Board has based its evaluations of safeguards, procedures, and performance by the MTB upon these mandates established in the 1974 act.

In the Board's hazardous materials activities, we watch for indications of the existence of unreasonable risks. The clearest indications of such risks are usually found during our accident investigations.

There are other indicators such as State rulemaking or legislative activities in this field, continuing losses of a particular commodity, or our analyses of hazardous materials emergencies.

Whenever such risks are found, we recommend actions to bring them under control. We develop the Board's hazardous materials safety agenda in this manner.

Last year, the Board testified several times before the Department of Transportation hazardous materials safety program. We were especially concerned about five major areas in which the Materials Transportation Bureau has been deficient in carrying out its assigned responsibilities.

At that time, the Board testified about MTB's failure to: (1) Develop safety analysis guidelines essential to the identification of risks in the transportation of hazardous materials; (2) develop for all hazardous materials incidents a central data system designed to support comprehensive program planning, analysis, and implementation; (3) institute the registration of highway bulk carriers of high risk hazardous materials as an initial step toward registration of high risk bulk carriers in all transportation modes; (4) control the exemption procedures for the hazardous materials transportation industry to reduce the risks of unproven transportation methods; and (5) assume a leadership role in the development of new techniques for supporting local emergency response efforts of law enforcement, fire service, and other emergency response agencies.

The concerns addressed during our testimony last year have not been completely resolved. However, we are pleased to report that during the past year, the Secretary of DOT has taken positive actions which we believe offer hope for making substantial improvement in reducing the risks associated with the transportation of hazardous materials.

On April 7, 1978, the Secretary of Transportation launched a special Hazardous Materials Task Force to evaluate the DOT's hazardous materials programs.

In September 1978, the task force made and the Secretary of Transportation approved six recommendations relating to the need for reassessment of positions taken by the Materials Transportation Bureau concerning the transportation of hazardous materials.

These recommendations address four of the five concerns about which we testified last year. Only the need to publish safety analysis guidelines to identify accident risks was not included in the report.

However, within the last month, we became aware that the MTB staff is presently drafting safety analysis guidelines for exemptions, and this is very, very encouraging.

We viewed the report and subsequent actions by the DOT Standing Committee on Hazardous Materials, a committee formed to provide a focal point for execution of all hazardous materials programs in the DOT, as positive actions to redirect DOT policies and resources.

The fact that administrations within the DOT in addition to the Materials Transportation Bureau are charged with carrying out the recommendations provides hope for objective evaluations.

I do not wish to imply that the Safety Board is completely satisfied that the actions now being taken by the DOT are all sufficient and properly directed.

However, DOT's top management has demonstrated a positive change in the proper direction. We are pleased to see, for the first time, actions being taken which can address adequately the safety concerns and that can bring marked safety improvement to the transportation of hazardous materials.

The continuing concern of this committee, of the House Committee on Government Operations, and of several other Congressional bodies has been instrumental in causing the Secretary to mandate these needed changes in administering the 1974 act.

Examples of improved DOT actions can be seen in the Coast Guard's development of an emergency response network and in the Research and Special Programs Administration's efforts to develop a new reporting system.

The Coast Guard was assigned the task of developing a plan for a National Hazardous Materials Response Center on September 28, 1978, by the Secretary of Transportation. Work has already been accomplished on this project.

While we concurred with the DOT about the importance of this project, we became concerned that its development was progressing without consultation with emergency response organizations which would be the users of the system.

Analysis of the response system plans and inquiries of fire service, law enforcement, civil defense, and other emergency response organizations revealed that the initial development phase for the response system had not been coordinated with potential users of the system.

The Coast Guard's uncoordinated development effort failed to identify the needs of the users with a consequent failure to meet its primary intended objective—to support local emergency response personnel in the control of transportation hazardous materials emergencies.

However, during March 1979, the Safety Board held meetings with the National Governors' Association, the International Association of Fire Chiefs, and many other organizations concerned about various aspects of emergency response to hazardous materials incidents.

These organizations reviewed the emergency response concept developed by the Coast Guard, identified support needs which an effective response system must fulfill, identified concerns which need to be resolved, and developed recommendations for changes in the system structure.

For example, the system conceived by the Coast Guard would not provide information sufficient to make prompt emergency control decisions nor is the program structured to interact timely with local emergency response agencies.

The information developed at our March meeting was transmitted to the Coast Guard. At a meeting held on April 2, 1979, between the Coast Guard and Safety Board staff, the Coast Guard indicated that the concerns of the emergency response organizations would be evaluated and that a meeting would be conducted with these organizations to further explore their emergency response needs.

We will continue to closely monitor the development of this response center as it evolves and will seek needed changes where we believe the proposed system will not meet the needs of local and State emergency response personnel.

DOT's Transportation Systems Center has recently begun a comprehensive examination of the Department's hazardous materials information needs.

MTB has also recently contracted for the gathering of information about selected transportation hazardous materials accidents and the adequacy of emergency response actions.

These activities should provide much needed data about emergency response actions necessary to identify successful methods of handling and should provide an understanding about actions which should be improved.

This new data can be used to improve the guidance provided to emergency response personnel, to improve packaging and shipping regulations, and to improve training programs and training aids concerning emergency response actions.

In the aviation field, hazardous materials safety problems received worldwide attention after the crash of a Pan Am Boeing 707 cargo plane carrying 16,000 pounds of hazardous materials at Boston, Mass., in November 1973.

In that accident, nitric acid was improperly packed and stowed for transportation, leaked in flight, and started a fire which led to the crash.

That attention resulted in numerous actions to reduce risks posed by the carriage of hazardous materials by air. Probably the most significant steps were the Air Line Pilots' Association safe transportation of people, or "STOP" program.

The air carriers greatly increased surveillance of shipments by their freight-receiving dock personnel, and by the Congress enactment of the Hazardous Materials Transportation Act, Public Law 93-633.

The ALPA program had the effect of: (1) Forcing air shippers' attention on the noncompliance problems which were so widespread at that time; (2) engaging thousands of additional pilots in the compliance monitoring process, and (3) supporting or forcing carriers' efforts to improve surveillance of shipments tendered for carriage.

Direct communications with shippers of pharmaceutical radioactive material resulted in safer packaging and shipping practices.

The carriers' increased surveillance of freight tendered to them at receiving docks has kept numerous hazardous materials shipments which do not comply with U.S. regulations from entering the air transportation system.

A representative of one major carrier reported that during the early stages of this increased surveillance effort, about 30 percent of such shipments did not comply with regulations and were rejected for this reason.

The Congress consideration and passage of the Hazardous Materials Transportation Act heightened the public's awareness of hazardous materials risks in air transportation. This left no doubt about the Congress concerns, and its desires to control such risks adequately.

The MTB and Federal Aviation Administration were generally responsive to Board recommendations about air carriage of hazardous materials.

To our knowledge, the most significant current problem is the carriage of passenger baggage containing hazardous materials.

We continue to learn of occasional problems with leaking samples carried in salesmen's or technicians' luggage. Recently, a foreign carrier experienced a fire in flight which originated in a passenger's backpack in the cargo bin on a passenger flight. Resolving this problem is difficult, but MTB and FAA appear to be taking

reasonable steps to control it with their training and signing activities.

With the shifting of rulemaking responsibilities to MTB, the FAA last year reduced its headquarters' hazardous materials program staff from three professionals to one. Whether the FAA's reduction in hazardous materials staff will affect air safety remains to be seen.

Mr. Chairman, this concludes my statement. I would be happy to answer any questions you might have about these matters.

Mr. ANDERSON. At this time, we will recess for about 15 minutes while we go vote.

[Short recess.]

Mr. ANDERSON. The subcommittee will be in order.

First, I want to thank you, Mr. Driver, Mr. Benner, and Mr. Clarke, for your presentation.

What is the size of the NTSB staff which deals with hazardous materials?

Mr. DRIVER. The number is three, sir, three professionals. One-third of that staff is to my left.

Mr. ANDERSON. So there are three professional members, and that is it.

Are there any full-time aviation specialists on the staff?

Mr. DRIVER. Of those three, do you mean, sir?

Mr. ANDERSON. Yes.

[Mr. Driver conferring with staff.]

Mr. ANDERSON. I suppose the answer is no?

Mr. CLARKE. Well, of the three, Mr. Chairman, none of them are specifically trained in aviation, per se. They are all trained in the hazardous materials field. But our air safety investigators who investigate the aviation accidents all have a general familiarity with the problems they might be presented with during the investigation of an accident.

Mr. ANDERSON. So anyway, the answer to are there any full-time aviation specialists on the staff, there really is none.

Are there any staff members who are qualified to deal with the technical aspects of the problem?

Mr. CLARKE. The answer is yes, and those would be the three professionals that Mr. Driver referred to.

Mr. ANDERSON. They would be qualified to deal with the technical aspects of an aviation problem?

Mr. CLARKE. As it relates to hazardous materials, we believe so, yes, sir.

Mr. ANDERSON. Does the NTSB have any recommendations pending with the DOT or the FAA on the transportation of hazardous materials by air?

Mr. DRIVER. I am quite sure that—let me check—[conferring with staff]—there are none pending.

Mr. ANDERSON. Do you believe that the present program for inspection of shipments of hazardous materials by air is adequate, and what changes would you recommend, if any?

Mr. DRIVER. Well, at the present time, I think the carriers are implementing most of the inspections of the materials carried aboard their aircraft, which leads me to believe that if they are doing that, they probably would need some help from either our

own inspectors—and when I say “our own,” I am talking about Federal inspectors—or a beefed up staff of people that do that.

Mr. BENNER. That is correct, sir. In my judgment, the private sector's effort is adequate. I think the concern, if there is one, is the possible degradation of that effort as the successful record continues.

Mr. ANDERSON. I thought, as we developed earlier with the previous witnesses, that they only do it on an occasional basis. I think they have half of the number—it was 6,500 out of 13,000 actual—and much of this was the result of the honor system.

I know when I went on last night, they just took my bag and shoved it in. I could have walked off the plane, and there was no way of their knowing that I was with the bag—

Mr. DRIVER. You are absolutely right, Mr. Chairman. I think the system functions very much the way that the BMCS runs their system. It is sort of a selective enforcement, to identify that which looks rather peculiar and inspect that one, or let us inspect at such frequencies and odd times that it encourages people to obey the law.

Unless you have 100-percent inspection, that is about the only thing you can do. I personally believe that the inspections are not frequent enough, and it is a function of manpower and resources, the same problem that the BMCS has, or any enforcement agency has, for that matter.

Mr. ANDERSON. Have you evaluated the training programs for FAA personnel who deal with the hazardous materials?

Mr. DRIVER. No, sir.

Mr. ANDERSON. Have you ever evaluated the training programs for employees of shippers and air carriers who deal with hazardous materials?

Mr. DRIVER. Yes, sir, we have, and I yield to Mr. Benner on the left, who has details about that.

Mr. BENNER. Mr. Chairman, during the investigation of the Pan American crash at Boston, that issue was explored and there were a large number of problems that were identified during that examination.

I believe all of the problems that were identified were attacked successfully by the air carrier associations and the individual air carriers themselves, sir.

Mr. ANDERSON. How do you mean “attacked successfully”?

Mr. BENNER. By the development of new training programs, the institution of requirements for employees to take their training programs, allocating time to the employees to take training and recurrent training programs; in many cases, the appointment of an official in the organization to supervise the hazardous materials control program, and a variety of steps of that type, sir.

This was in the private sector.

Mr. ANDERSON. Do you have any views on whether the FAA headquarters' staffing for hazardous materials is adequate?

Mr. DRIVER. It would be rather presumptuous, I think, at this time to actually make a statement on that. I say that for this reason, Mr. Chairman. We are watching the new program that is underway right now. As a part of that new program, they are

taking on additional duties and additional responsibilities and additional efforts in the area of hazardous materials safety.

I think it is attendant to such taking on of responsibilities, it is also an attendant requirement to have more manpower to do the job. Exactly how much more manpower is needed, I cannot address, but I would say that as they take on additional responsibility in this area, and more projects to increase the safety during the transportation of hazardous materials, they are going to need more people.

Mr. BENNER. Mr. Chairman, I guess what it boils down to is this. There have been a number of problems that were attacked very vigorously following the 1973 crash, and there was a heightened awareness on the part of all parties.

Subsequent to that, the record that has evolved has reduced the demand for new programs. The programs that were established then did require extra manpower to get them off the ground.

Now, whether we have reached the point of requiring additional manpower to make sure that the program keeps going or not is a judgment call, and we do not have enough data at this time to make that judgment, sir.

Mr. ANDERSON. And we depend upon you for that judgment. For example, a little earlier, when we had the Administrator of the Research and Special Programs Administration of DOT, at that time—and my figures are probably wrong—he said they had, I think, 18 full-time inspectors in the field, and 109 part time. And I got to thinking, I could name more than 18 pretty important airports in the country, which means that you do not even have enough full-time inspectors to go around the major airports in the Nation, and we are depending on 109 part-time to do the work.

Then they said, well, the full-time had had the basic and the advanced training, but the part-time were taking it. And then, the thing that kind of also worries is that they have reduced the top administrative level from four to one, if I am correct. It gives me the impression that we are leaving it very, very much to the voluntary effort of the carriers and the cargo carriers themselves. And you are the ones who have to tell us if it is bad or it is good—at least, that is my thinking of what your role is.

Mr. BENNER. Given the limited resources, sir, we do try to maintain contact with the people in the business and the inspectors to the extent of the time available. Those contacts have not given us any reason to get alarmed at this point. We will continue to maintain those contacts, and if we see any indication at all that it requires attention, we will begin to focus attention on it.

At this time, those contacts have not given us any cause for alarm.

Mr. ANDERSON. During the past year, have there been any accidents investigated by the NTSB in which hazardous materials were involved?

Mr. DRIVER. Oh, yes, quite a few. Yes, we have. Would you like some details on some of those; is that your next question?

Mr. ANDERSON. Yes, you might tell us——

Mr. BENNER. In all modes, there have been a number of investigations. For example, the most recent one is the Crestview, Fla., accident, where there was a hazardous materials specialist present.

Mr. ANDERSON. What was the incident?

Mr. BENNER. It was a railroad derailment.

Mr. ANDERSON. A railroad derailment. So obviously, it was not hazardous material-caused. That, then, would not have been reported as a hazardous material incident, then, according to the testimony a moment ago. You only report those hazardous materials incidents if the accident was caused by hazardous materials. So this would fall in the category of a nonhazardous material accident; is that right?

Mr. BENNER. Mr. Chairman, the distinction is between the cause of the injuries, as differentiated from the cause of the accident.

Mr. ANDERSON. I see.

Mr. BENNER. If the hazardous materials caused the injuries, then it would be included—

Mr. ANDERSON. Then it is listed as a hazardous materials accident.

Mr. DRIVER. Even though it is a railroad accident, it is also reported as a hazardous material accident.

Mr. ANDERSON. Even though the cause of the accident was not in any way related to the hazardous material; just because somebody is injured.

Mr. DRIVER. That is my understanding; that is correct. I think Dr. Palmer gave the indication of a truckdriver who was driving a truck that had an accident. In that case, they had to make a decision as to whether or not the driver was killed by the accident or by the hazardous materials, and if they figured he died as a result of the hazardous materials carried aboard, then it is that type of incident. Of course, it would also be carried as a highway accident.

Mr. ANDERSON. Are there any changes you would recommend in the current program for regulating the shipment of hazardous materials by air?

Mr. DRIVER. At the present time, we do not have any such recommendations formally.

Mr. CLARKE. I am not aware of any need at this time, Mr. Chairman, for any additional changes in the regulations. We believe the regulations at the moment are adequate.

I think we probably share your concern that with deregulation here and the burgeoning of the part 135 operators that the possibility of some new things developing in the future relative to this area, but we do not have any data at this point to make any judgment in this area.

Mr. ANDERSON. Mr. Stangeland?

Mr. DRIVER. Mr. Chairman, in the last part of my statement, I mentioned our concern over the baggage that is carried aboard aircraft as a possible source of problems to us in the future. We do not at this time have any recommendations as to what to do about it, because we really do not know what type of legislative action to take. But we think it will pose some problems to us in the future.

Mr. STANGELAND. Thank you, Mr. Chairman.

Mr. DRIVER. I will just follow that up. What types of hazardous materials do you suspect are being carried on aircraft in baggage?

Mr. DRIVER. Well, one is some kind of combustible that caused a backpack to catch on fire. We do not know exactly what it was. It

could have been matches, it could have been part of a backpack, it could have been a hand-warming kit. We have no idea what that was.

But salesmen sell everything, and salesmen do travel, and salesmen do carry samples. And if he is a salesman for a pharmaceutical lab, or if he is a salesman for—du Pont, for example, makes explosives and so forth. He could be carrying that aboard.

I myself, for example, carried a piece of a missile on a flight once that had to go, and I did carry it.

Mr. STANGELAND. Well, won't these things show up in that X-ray machine, or do they show up, then, as apparently a safe thing as far as a hijacking, and so they pass by?

Mr. DRIVER. I do not know the full particulars about how those things work, but usually, they show up the outline, and probably not what it is made of. And if the outline looks rather suspicious, then another check can be made.

Mr. STANGELAND. You state that the Department of Transportation has taken positive actions to address the five major deficiencies identified by the Board last year.

In your opinion, has the Department requested sufficient resources in terms of personnel and funding for fiscal year 1980 to implement a program to correct these deficiencies?

Mr. DRIVER. I do not know, sir. When we say that they are taking positive action, we are making reference to the six recommendations put out by the Secretary, in which he addressed four of the five concerns that we had specifically, and they were responded to, and there is a status report that has been submitted by Dr. Palmer, in the form of the monthly report of the standing committee on hazardous materials, in which he indicates that recommendation 1 has been accomplished, for example, that a standing committee be established, and recommendation 3, that a centralized hazardous materials information system be established, and he gives us a status report on that one.

I can submit this for the record, sir.

Mr. STANGELAND. That would be fine.

[The following was received for the record:]

QUARTERLY REPORT OF THE DEPARTMENTAL
STANDING COMMITTEE ON HAZARDOUS MATERIALS

April, 1979

STATUS OF IMPLEMENTING TASK FORCE RECOMMENDATIONS

Recommendation 1: "That a Standing Committee on hazardous materials be established..."

Accomplished.

Recommendation 2: "That an implementation plan be developed to establish a National Hazardous Materials Response Center by expanding the existing U.S. Coast Guard National Response Center."

The Coast Guard has initiated the expansion of the existing Flag Plot/National Response Center facilities to accommodate two additional consoles and the telecommunications terminal for the Hazard Assessment Computer System. With construction 40% complete, action is pending for GSA approval of additional telephone equipment. Action was also initiated to install a hotline between the National Response Center and CHEMTREC. Initiatives during the next quarter will include plans to increase the staffing to handle the additional workload.

The Coast Guard is continuing to work with the Manufacturing Chemists Association, the Association of American Railroads, and AT&T to ensure that the industry's proposed Hazardous Materials Emergency Response (HMER) System will be compatible with the National Response Center operations.

Recommendation 3: "That a centralized hazardous materials information system be established within the Department to collect and analyze hazardous materials program information."

Work is underway on the development of the requirements for a DOT-wide hazardous materials information system. Initial analyses have been completed of the 20 separate forms now in use by the various DOT agencies for collecting freight accident statistics that usually contain hazardous material related data. In addition, RSPA has conducted three staff studies on the general background of multi-mode freight movement in the last 25 years to help put the hazardous material problem in proper context.

The first round of DOT interviews has begun to obtain the perceived requirements of the various elements directly involved in hazardous materials issues. By July 1979, this process is expected to result in (1) a preliminary requirements draft, (2) a proposed program plan, and (3) a documented description of present data sources and system elements. From these documents and other reviews will be developed a general design for a hazardous materials information system which can provide information for each modal administration within DOT.

Recommendation 4: "That a study be conducted to determine if the civil and criminal penalties assessed ... are consistent ... and are assessed equitably by the various operating administrations."

The contractor has been selected to perform the required study and is expected to begin gathering information from the operating administrations in early May. A draft report which will include recommendations for enforcement guidelines and criteria is due in late November.

Recommendation 5: (a) "That training program be designed to familiarize part-time and volunteer emergency services personnel with the methods for handling hazardous materials accidents ..." and (b) "... that the current Departmental emergency action guide be expanded..."

(a) RSPA has engaged a contractor to develop a home study course based on the first four segments of the existing DOT/NFPA course on "Handling Hazardous Materials Emergencies." The course is expected to be available in September.

Other new training materials include a special 8-hour course on handling pipeline accidents which was delivered to RSPA in April and an 8-hour session on radioactive materials accidents to be available in June. Both are structured as add-on sessions to the basic DOT/NFPA 20-hour course.

(b) The drafts of the newly revised Emergency Action Guide have been circulated to approximately 40 representatives of government, industry, and emergency services agencies for review of technical accuracy and display. Their comments are due by June 1 and the final document by July 1. The revision will allow users to access information in the guide using either the name of any of the 1,600 most common hazardous materials or its assigned 4-digit number.

Recommendation 6: (a) "That the Department continue its efforts to make the Federal Water Pollution Control Act, the Resource Conservation and Recovery Act, and the Toxic Substances Control Act lists of hazardous 'wastes and substances' and DOT regulations defining hazardous 'materials,' compatible..." and (b) "... continue regulatory efforts and studies in the areas of the transportation of liquefied gases, hazard information number systems ..."

Notices of proposed rulemaking have been issued concerning the transportation of materials subject to the Federal Water Pollution Control Act and the Resource Conservation and Recovery Act. The closing date for public comment on the former is June 5, 1979, and the latter, June 1, 1979. On March 8, a notice of proposed rulemaking was issued concerning the transportation of cryogenic liquids and a public hearing was held on April 17. It is expected that a notice of proposed rulemaking will be issued concerning a hazardous materials identification numbering system for an improved emergency response capability by mid-May. RSPA is continuing work on other regulatory proposals pertaining to improved hazardous materials communications, such as the identification of unodorized liquefied petroleum gas in highway and rail tank vehicles. Efforts to publish performance-oriented standards rather than specification design standards are continuing. One proposal under development will set forth performance-oriented standards for fabrication of a high-pressure compressed gas cylinder constructed of aluminum.

Mr. STANGELAND. I guess the point of my question—and maybe it is an inappropriate question for you—you issue recommendations based on your assessment of accidents, but you in no way assess the ability of the Department to follow up those recommendations, then?

Mr. DRIVER. That is true, sir. In fact, it might be presumptuous on our part, and we might be preempting action by the modal agencies if we did do that; if we elected, say, not to notify Federal agency "X" to take action because we felt they could not do the job, they might very well have the capability and the resources to do so, and it would be robbing the public of a little bit of safety if we elected to do so.

Mr. STANGELAND. It is pointed out here that Public Law 93-633 requires that you evaluate the adequacy of safeguards and procedures concerning the transportation of hazardous materials and the performance of other Government agencies charged with assuring the safe transportation of such materials.

Mr. DRIVER. Yes, sir, and we have conducted evaluations of that type. I think the last one we conducted was an evaluation of certain aspects of the National Highway Traffic Safety Administration, which was done at the specific request of the Congress.

Mr. STANGELAND. What is your response, then—and I expect what happens is you issue recommendations, and apparently the ability of the agency that those recommendations are issued to, feels they do not have the ability to respond—and I would ask what is your response to allegations that economic factors are never considered by the NTSB before issuing those recommendations?

Mr. DRIVER. That is not true, sir. We do not have the staff, nor do we perform in-depth cost benefit or safety analyses of the type that the Federal agencies conduct. I conducted those types in my other job. It takes a heck of a lot of time and a lot of effort, and a lot of money.

Mr. STANGELAND. I guess, then, the point is that the allegations are made, but they are not justified. Is that what you would be saying—the allegations by the Department of Transportation that you do not consider economic factors, that allegation is made, but that is beyond your control.

Mr. DRIVER. That is halfway, sir.

Mr. STANGELAND. What is the other half?

Mr. DRIVER. The allegation is made that we do not do it. We do perform an informal type of cost benefit analysis. We have some idea, for example, of the manner in which a recommendation could be followed through.

A concrete example would be the head shields that we recommended, the type for railroad tank cars. We had a darned good idea what that cost, because we had a tank car headshield installed outside of our building as a demonstration at the time we had our en banc hearings.

In other cases, we might have some idea of the relative cost of implementing a standard with a piece of equipment, but we do not want to be so presumptuous as to say, "Well, we think it is going to cost \$500," and not make the recommendation, when it might well

be within the capability of the agency and well within the state of the art that the agency knows about to do it for \$150.

Mr. STANGELAND. I have one more question, and then I would submit the balance for written comment.

What does the Board consider to be the single most important problem regarding the transportation of hazardous materials? I guess it is kind of a three-part question. What is the single most important problem, and then, what action is the Department taking to deal with the problem, and do you think the Department is doing enough?

Mr. DRIVER. For the past several months, especially since I have been on the Board, the Board has been directing its efforts toward the safe transportation of hazardous materials by way of rail, probably because of the fact that so much of it is released at one time when a tank car goes as opposed to a release on a highway.

Also combined with this is the fact that for the most part, it appears that the railroads have been deteriorating in their track maintenance and so forth, and this adds to the problem of hazardous materials spills. So that is where we have been directing most of our efforts.

Very recently, though, we have been focusing some more effort on the transportation of these materials by highway, by truck mode. The quantities are smaller, but in many cases, they are a lot closer to the public, because they use the same highways that the public uses. Whereas, in many cases, we have been very, very fortunate. When an incident or an accident does occur at the railroads, many times it is out in the boondocks, and the release of gas or whatever is released is not that near the major population centers. But this very easily could happen, and in such cases, there would be a real catastrophe.

Mr. STANGELAND. Thank you.

Mr. ANDERSON. Mr. Fary?

Mr. FARY. Thank you, Mr. Chairman.

Mr. Driver, in your testimony, you discuss the need to register highway bulk carriers of high risk hazardous materials. What do you mean by a "high risk hazardous material"? What are some of the examples, and does the DOT's present regulatory scheme differentiate between high risk hazardous materials and other hazardous materials—that is, is liquified natural gas regulated in a different manner than paint, and should it be so?

Mr. DRIVER. The answer is yes, to your last one. We think it should be regulated very strictly.

When I use the term "high risk," I am speaking particularly of materials like LNG, which is the term you used for liquified natural gas.

The reason we think it is a very high risk is because it is high energy source, and there is a high potential for damage by inadvertent release of this material—not so much in terms of toxicity, but in terms of damage from the heat and fire and explosion.

I would also include in that anhydrous ammonia, for example, which is a very dangerous material, or some of the oxides of nitrogen, which are carried quite a bit on land and by railway systems.

I tried to answer your question. I think I missed one, though.

Mr. FARY. I think you just about covered it. The main thing was the registration, the differentiation of the high risk hazardous in comparison to the lower grade hazardous.

MR. DRIVER'S SUBMISSION FOR THE RECORD

Mr. DRIVER. Before trying to give any definition of acceptable risk, I would like to indicate the context for my answer, and would point out that this answer represents my personal view. The acceptability of a risk is a personal conclusion that individuals make about various activities. These conclusions vary from activity to activity and vary with time.

One's conclusions about the acceptability of a given risk seem to be based on acquiring awareness of the existence of a particular risk, one's perception of the risk's relevance to one's own or others' lives, and one's perception of the trade-offs between the benefits of the activity and the accompanying threat.

In that sense, I agree with the definition just read, that a decision on the acceptability or unacceptability of risks is a judgement call. I also agree that this call is made numerous times in the development—and operation—of a transportation system. However, I cannot agree that only a consensus analysis of the actual safety of the system is usually possible. Before any transportation system component is built, the engineers and builders who have produced the component have made many risk acceptance decisions in their choice of designs, materials of construction and manufacturing controls. In many instances, these individual judgement calls are made intuitively or on the basis of superficial safety analyses. Sometimes, no effort is made to look for these risks. Importantly, the groups of individuals who will be exposed to the risk introduced by this equipment usually are not aware of these decisions, nor do they have a direct voice in making or controlling them.

The individuals or groups at risk have often relied on the government to assure that such decisions do not impose unreasonable risks. Government involvement thus is an attempt to control the individual risk acceptance decisions when the consequences of the individual decisions may have adverse effects on a large or unaware segment of our society. A government role in this risk acceptance process has evolved for many activities such as transportation, drugs, foods and consumer products. That role is to establish and administer "safety" regulations that will control the risks "adequately."

In the hazardous materials transportation field, the Congress delegated this part technical, part value judgement call to the Secretary of Transportation when it passed Section 104 of P.L. 93-633, the Hazardous Materials Transportation Act of 1974. That section begins "Upon a finding by the Secretary, in his discretion, that the transportation of a particular quantity and form of material in commerce may pose an unreasonable risk to health and safety or property. . . ." If the Secretary, upon learning of a particularly hazardous material transportation activity or risk and evaluating the trade-off between the benefits of the activity and the accompanying threat, makes a determination that a risk is unacceptable, he will prescribe and enforce regulations to control that risk.

In this context, an acceptable hazardous materials transportation risk is a risk which a) the Secretary of Transportation has identified, evaluated and acted on; b) individuals who design, operate, maintain or use the transportation system have decided to accept, either with or without full knowledge of the risks; or c) which, through a lengthy history of operation, the public has tacitly accepted or influenced through its actions.

Individuals will continue to make their own decisions about the acceptability of a given risk based on information they have about that risk. As long as individuals have differing perceptions about a risk, they will differ about its acceptability. For risks affecting many individuals and about which their divergent opinions have become the subject of disagreements, some mechanism is needed for reaching a decision on the "public" acceptability of these risks. A need to identify risks which are likely to become "publicly" unacceptable before the losses trigger public concern and undermine confidence in the transport system is also important. Both needs, in my view, have to be met by the Secretary in administering P.L. 93-633.

Mr. DRIVER. Incidentally, Mr. Fary, you mentioned LNG. To us, it poses different problems, because it is also a cryogenic. Your LPG is hardly cryogenic, boiling about minus 44° F but you have got this LNG, which is very, very cold. It is a very potent material, and it has not been transported very much by way of highway

system. It has been primarily by sea so far. Usually, it is stored pretty close to where it comes in; it is used for peak shaving, and so they stick it in big tanks, which are relatively safe, the big thermal-insulated tanks. But when they start transporting it, there is a requirement to keep it cold, so they will not lose it, and also to get it delivered.

Mr. ANDERSON. Would the gentleman yield at that point?

Mr. FARY. Yes, I yield.

Mr. ANDERSON. It is my understanding that the LNG facility at Chula Vista, in southern California, gets all of its LNG from tank, and it is brought down from somewhere in the Bakersfield area, and the truck tanks go by constantly, all the time, filling up the LNG facility, but none of the LNG for the Chula Vista plant comes in by water.

Mr. DRIVER. Then I stand corrected, sir. I know about the one here in Maryland and the one up on the east coast, and those are the two I am most familiar with.

Mr. ANDERSON. We have an LNG controversy in my area at the Port of Los Angeles, Long Beach, and the uprising was so great that they are talking about rebuilding someplace else. But one of the things pointed out during the hearings was that constantly when you are driving on the highway, you are passing or being passed by a truck tanker that has LNG that is going, I assume, from the Bakersfield area all the way down to San Diego and unloading. So it is on the highways.

Mr. DRIVER. That is right. I think the State of California is about the most advanced State I know of in the use of LNG. Some 8 years ago, they were the leaders in developing natural gas—

Mr. ANDERSON. I am glad you limited that.

It was just pointed out here, on LNG trucking, it says:

Each LNG truck working out of the Distri-Gas terminal at Everett, Mass., carries 40 cubic meters of LNG in a vacuum-insulated tank at minus 260 degrees Fahrenheit. More than 90 such truckloads may come out of the Everett terminal in a single day.

So we have more than 90 truckloads each day that may come out of the Everett terminal in Massachusetts. So it is not just California that is involved.

We are doing a lot of it by truck, I know that.

Thank you.

I yield back to you, Mr. Fary.

Mr. FARY. Thank you, Mr. Chairman.

Mr. DRIVER, the National Academy of Sciences issued a bulletin called "The First National Symposium on Transportation Systems Safety."

Mr. DRIVER. I am aware of it, sir.

Mr. FARY. In there, they define an acceptable risk. I just wondered whether or not you would agree with their definition.

They say:

The definition of an acceptable risk, or the reverse of this, an unacceptable risk, is usually arrived at by the consensus of a group, panel, or a committee of persons knowledgeable in the subject under consideration. This is a judgment call that is made numerous times in the development of a safe system for transportation * * *.

Are you familiar with that?

It is a judgment call that consists of many engineering factors that can be documented and verified on a factual basis. However, this aspect of the system is then merged with operational factors that involve people and thus, only a consensus, analysis of the actual safety of the system is usually possible.

Do you agree with that definition?

Mr. DRIVER. I would need some time to think about that one, sir. This is the first time I have heard it spelled out that way. I have heard acceptable and unacceptable risk described in many ways, some quantitatively, where they put a number on it, some in which it is a pure judgment call, as you indicate.

I do know that the acceptable risk goes up and down according to who is the person under risk. For example, in the military, you carry things with you, and you take a very high risk because of the job requirements of what you have to do. In other cases, that risk would be absolutely zero. You would not stand for it at all.

Mr. FARY. Well, for the sake of the record and to save time, Mr. Driver, could you give us a more detailed definition?

Mr. DRIVER. I would like to take a look at it and read it, yes.

Mr. FARY. Very good.

Mr. DRIVER. I am familiar with the risk analysis.

Mr. FARY. Thank you very much. I yield back my time, Mr. Chairman.

Mr. ANDERSON. Which mode has the worst safety record in the area of hazardous materials transportation?

Mr. DRIVER. Let us look at it different ways. By casualty count, it would be the highway mode.

Mr. ANDERSON. Which one, now? Casualties would be more by trucking, then?

Mr. DRIVER. That is correct, highway. I think that is a function of the fact that we have so many vehicles carrying relatively small amounts. I think the limit is 3,000, 4,000, 5,000 gallons. With the railroads, you have the big 10,000-, 15,000-, 20,000-gallon tankers.

But you have a lot of these little trucks running around that do carry hazardous materials, quite a bit of it, but in smaller quantities.

Anything else?

Mr. BENNER. Did that answer your question, sir?

Mr. ANDERSON. Yes. My next question was why, and you are getting into that, so I will not ask that, unless you have something more to say.

What can be done to improve the program? Is additional money for the program at least part of the solution?

Mr. DRIVER. The Board would like to see the program that MTB and DOT have started really implemented and get going. It is only at that time that we could make some determination as to what additional resources are needed.

You see, Mr. Chairman, the MTB and DOT have just now started responding to our recommendations. Now, the manner in which they implement it and the extent that they implement it, we are not too sure how that will go. An extensive implementation will require more people than just partial implementation. I just really cannot answer that at the present time. I just cannot answer the question at the present time.

Mr. ANDERSON. I do not know how to ask my next question. For one who flies constantly, it seems like I am always getting off a

"Red Eye" or something. I would not want to show any thing but an attitude of calm and confidence in our system, and so on.

But after reading the particular report of the Senate committee and other witnesses and testimony that we are receiving, I have the impression that everyone somewhat feels that well, everything is okay, we are doing enough, what we are asking for in this budget is sufficient, and everything is just fine.

I think the question I wanted to ask with that preface is, are we waiting for a disaster to happen before we really do something on this, or are we really doing it, and am I overconcerned?

Mr. DRIVER. The Board is not waiting. It is for that reason that we have put out 216 total recommendations pertaining to the handling and safe transportation of hazardous materials to include all modes. These have been put out since the late sixties, or early sixties.

Mr. ANDERSON. Are the recommendations being followed?

Mr. DRIVER. Well, we still have 69 that are open of those 216.

Mr. ANDERSON. Are those 69 crucial ones? Have they taken care of the crucial ones, and these are detail questions that there might be some doubt about, or are these important recommendations you have made?

Mr. DRIVER. The five things that I indicated were our primary concerns are the ones that we are really concerned about. A lot of these other recommendations concern specific corrections for specific types of accidents. They are still open, and I grant that, there are 69 of them—

Mr. ANDERSON. Out of how many?

Mr. DRIVER. Two hundred and sixteen. Add 23 to that 69, though, sir; those are under review. I think the difference is about 124.

Mr. ANDERSON. That is 124 that they have not—

Mr. DRIVER. It is 124 that they have taken care of.

Mr. ANDERSON. No; 124 that they have not.

Mr. DRIVER. No; 124 that are taken care of.

Mr. ANDERSON. Yes, that is right, yes; it is 92 that they have not, and 124 that they have.

Mr. DRIVER. That is correct, sir.

Mr. ANDERSON. For the record, I would like to have you submit to us—I suppose we might as well have the full 216—but itemized, I would like to have you identify the 69 that they have not, that are under review, as well as the 23.

Now, I did not understand the difference between the 23 and the 69. The 63 and the 29, that is 92, have not been complied with, and of those 92, 69 are being reviewed, you say; is that reviewed by you as to whether they should be requested or not, or what?

Mr. DRIVER. Sixty-nine are open; they have not been answered to our satisfaction. And 23 are under review by the agency addressed.

Mr. ANDERSON. So 23 are under review and 69 have not been met.

Mr. DRIVER. That is correct.

Mr. ANDERSON. I would like to have those submitted for the record, so we can know what it is that you have asked for that has not been complied with today.

Mr. DRIVER. We can give you a rather detailed review of each one of those, sir.

Mr. ANDERSON. We would like to have that for the record, yes.
[The following was received for the record.]

OPEN RECOMMENDATIONS
HAZARDOUS MATERIALS TRANSPORTATION

NTSB DESIGNATION	MODE OF TRANSPORTATION	TOTAL RECOMMENDATIONS	OPEN RECOMMENDATIONS ADDRESSEE RESPONSE RECEIVED	OPEN UNDER REVIEW BY ADDRESSEE	PERCENT OPEN RECOMMENDATIONS
A	Aviation	20	1	0	5.00
H	Highway	47	9	2	19.15
I, HM	Intermodal	34	21	9	61.76
M	Marine	33	16	1	48.48
R	Railroad	84	15	12	17.86
		218	62	24	28.44

TOTAL OPEN
RECOMMENDATION
86

AS OF FRIDAY MAY 11, 1979

ATTACHMENT III
PAGE 100

2403

RECOMMENDATION	ADDRESSEE	ADDRESSEE
NUMBER	RESPONSE DATE	
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A-76-026	14 MAR 29	FAA

MODE

AVIATION

LOG NUMBER 0536
 SOURCE ACCIDENT
 REPORT NO
 NOTATION AD 1209C
 ADATE 73 NOV 03
 ALOC BOSTON
 ASTATE MA

RECNO ABSTRACT

A-74-020 ON FEBRUARY 11, 1974, THE NATIONAL TRANSPORTATION SAFETY
 BOARD CONCLUDED ITS PUBLIC HEARING INTO THE PAN AMERICAN
 A-74-021 WORLD AIRWAYS ACCIDENT WHICH OCCURRED ON NOVEMBER 3, 1973.
 A-74-022 THE AIRCRAFT WAS A JET-REIHTEN CARRYING NEARLY 16,000
 A-74-023 POUNDS OF RESTRICTED CARGO.
 A-74-024
 A-74-025
 A-74-026

RECNO A-74-C26
 FILE TYPE RECOMMENDATION
 I DATE 74 MAR 34
 MODE AVIATION
 PRIORITY
 DUE DATE 74 JUN 25
 STATUS OPEN - ACCEPTABLE ACTION
 FOLLOWUP DATE 78 OCT 30
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

INSTITUTE RULEMAKING TO REQUIRE THAT AIR CARRIERS NOTIFY THE SHIPPER AND FAA WHEN A SHIPMENT, OR ITS DOCUMENTATION, DEVIATES IN ANY MANNER FROM FEDERAL ON AIR CARRIER REGULATIONS. FURTHER, REQUIRE THAT WHEN DEFICIENT SHIPMENTS ARE DETECTED BY THE AIR CARRIER, THE CARRIER NOT REMOVE UNTIL THE DEFICIENCY IS REMEDIED, OR THE TRANSPORT CONTROLLED. THE DEFICIENT PACKAGES-- WITH PRESCRIBED LABELS AND CONTROLS-- IS AUTHORIZED BY THE COGNIZANT FEDERAL AGENCY. THE DEFICIENCIES SHOULD BE ENTERED ON THE SHIPPING DOCUMENTS. A COPY OF WHICH SHOULD BE RETAINED BY THE CARRIER AND BE MADE AVAILABLE TO THE COGNIZANT FEDERAL AGENCY.

RESPONSE

FAA LTR-- THE RECOMMENDATION THAT AIR CARRIERS NOTIFY THE SHIPPER AND FAA WHEN A SHIPMENT, OR ITS DOCUMENTATION, DEVIATES IN ANY MANNER FROM FEDERAL ON AIR CARRIER REGULATIONS. FURTHER, REQUIRE THAT WHEN DEFICIENT SHIPMENTS ARE DETECTED BY THE AIR CARRIER, THE CARRIER NOT REMOVE UNTIL THE DEFICIENCY IS REMEDIED, OR THE TRANSPORT CONTROLLED. THE DEFICIENT PACKAGES-- WITH PRESCRIBED LABELS AND CONTROLS-- IS AUTHORIZED BY THE COGNIZANT FEDERAL AGENCY. THE DEFICIENCIES SHOULD BE ENTERED ON THE SHIPPING DOCUMENTS. A COPY OF WHICH SHOULD BE RETAINED BY THE CARRIER AND BE MADE AVAILABLE TO THE COGNIZANT FEDERAL AGENCY.

FAA LTR-- THE RECOMMENDATION THAT AIR CARRIERS NOTIFY THE SHIPPER AND FAA WHEN A SHIPMENT, OR ITS DOCUMENTATION, DEVIATES IN ANY MANNER FROM FEDERAL ON AIR CARRIER REGULATIONS. FURTHER, REQUIRE THAT WHEN DEFICIENT SHIPMENTS ARE DETECTED BY THE AIR CARRIER, THE CARRIER NOT REMOVE UNTIL THE DEFICIENCY IS REMEDIED, OR THE TRANSPORT CONTROLLED. THE DEFICIENT PACKAGES-- WITH PRESCRIBED LABELS AND CONTROLS-- IS AUTHORIZED BY THE COGNIZANT FEDERAL AGENCY. THE DEFICIENCIES SHOULD BE ENTERED ON THE SHIPPING DOCUMENTS. A COPY OF WHICH SHOULD BE RETAINED BY THE CARRIER AND BE MADE AVAILABLE TO THE COGNIZANT FEDERAL AGENCY.

LOG NUMBER H-0019
 SOURCE SPECIAL STUDY
 REPORT NO STS-71-1
 NOTATION NO 562 J
 ADATE 71 JAN 27
 ALDC
 ASTATE

RECNO

H-71-027
 H-71-028
 H-71-029
 H-71-030
 H-71-031
 H-71-032

ABSTRACT

THE MOVEMENT OF DANGEROUS GOODS THROUGH TRANSPORTATION CHANNEL HAS BEEN THE OBJECT OF CONCERN BY PRIVATE INDUSTRIES AND GOVERNMENT REPRESENTATIVES FOR ALMOST A CENTURY. THEIR MOVEMENT CREATES RISKS, OVER WHICH PRIVATE AND PUBLIC CONTROL EFFORTS HAVE BEEN EXERCISED IN VARIOUS WAYS. A MAJOR CONTROL EFFORT HAS BEEN THE DEVELOPMENT OF FEDERAL REGULATIONS PRESCRIBING CONDITIONS UNDER WHICH THESE GOODS MAY BE OFFERED FOR TRANSPORTATION AND MOVED BY THE CARRIER.

RECNO
FILE TYPE
IDATE
MODE
PRIORITY
DUE DATE
NSTATUS
FOLLOW DATE
BUREAU
DIVISION
MONITOR DATE

71 APR 27
OPEN = ACCEPTABLE ACTION

RECUS

THE SECRETARY OF THE DEPARTMENT OF TRANSPORTATION INITIATE THE DEVELOPMENT AND ADOPTION OF A RISK-BASED FRAMEWORK FOR THE EVALUATION AND PLANNING OF DANGEROUS GOODS TRANSPORTATION SAFETY REGULATIONS OR PROGRAMS IN THE DEPARTMENT, BY A PROJECT LEADING TO DEVELOPMENT OF THE ANALYTICAL METHODS FOR RISK IDENTIFICATION AND EVALUATION REQUIRED FOR ITS IMPLEMENTATION THROUGH A DESIGNATED ORGANIZATION WITHIN THE DEPARTMENT.

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RECNO
FILE TYPE
IDATE
MODE
PRIORITY
DUE DATE
NSTATUS
FOLLOW DATE
BUREAU
DIVISION
MONITOR DATE

71 APR 27
OPEN = UNACCEPTABLE ACTION

RECUS

THE MODAL ADMINISTRATORS IN THE DEPARTMENT OF TRANSPORTATION REQUIRE APPLICATION OF SUCH A FRAMEWORK AS IT DEVELOPS AND USE OF RISK-BASED ANALYTICAL METHODS IN THE

RESPONSE

ASSISTANT SECRETARY FOR SAFETY AND CONSUMER AFFAIRS LETTER THE REQUEST FOR PROPOSALS (RFP) IS INDEED IN RESPONSE TO THE RECOMMENDATIONS OF OUR SPECIAL STUDY, "RISK CONCEPTS IN HAZARDOUS GOODS TRANSPORTATION REGULATIONS." PROPOSALS IN RESPONSE TO THAT RFP ARE BEING EVALUATED. THE PROJECT IS BEING EVALUATED BY THE OFFICE OF HAZARDOUS MATERIALS. THE FIRST STEP IN UTILIZING THE RISK CONCEPT MUST BE THE DEVELOPMENT OF METHODOLOGY WHICH IS RELEVANT TO THE TRANSPORTATION OF HAZARDOUS MATERIALS AND RELATED REGULATIONS. WE EXPECT TO APPLY THE RESULTS WITHIN THE DEPARTMENT AND TO MAKE THE CONTRACT REPORT READILY AVAILABLE TO THE PUBLIC AS WELL AS WITHIN THE GOVERNMENT. WITH REGARD TO THE OTHER ASPECT OF THE NTSB RECOMMENDATION, I BELIEVE THAT IT WOULD BE MORE MEANINGFUL TO REPORT ON SIGNIFICANT ACCIDENTS IN THE APPLICATION OF RISK-BASED METHODS, THAN IT WOULD BE TO REPORT AT SIX-MONTH OR MORE FREQUENT PERIODIC INTERVALS. IN ANY EVENT THE METHODS MUST BE DEVELOPED BEFORE WE CAN APPLY THEM. PLEASE REST ASSURED THAT WE WILL KEEP YOU INFORMED OF PROGRESS MADE IN DEVELOPMENT AND APPLICATION OF RISK-BASED METHODOLOGY.

RESPONSE

WE WILL GIVE CAREFUL CONSIDERATION TO THE RECOMMENDATIONS AS PERTAIN TO THE DEVELOPMENT OF REGULATIONS ON A MODAL BASIS. THAT WE WILL COOPERATE FULLY WITH SECRETARY IN

FORMULATION OF THE DANGEROUS GOODS REGULATORY PROGRAMS, INCLUDING SPECIAL PERMITS, IN EACH MODE, FOR BOTH INTRAMODAL AND INTERMODAL SHIPMENTS AT THE EARLIEST POSSIBLE DATE. IT APPEARS THAT RISK-BASED METHODS SHOULD BE USED FIRST ON BULK SHIPMENTS.

RECNO M-71-0289
FILE TYPE RECOMMENDATION
DATE 71 JAN 27
MODE HIGHWAY
PRIORITY
DUE DATE
OPEN DATE 71 APR 27
ACTION ACCEPTABLE ACTION
FOLLOW UP DATE
BUREAU
DIVISION
ACTION DATE

RECUR

THE SECRETARY CONSIDER THE FORMATION OF AN ADVISORY GROUP OF 8 PERSONS TOGETHER UNDER THE AUSPICES OF AN ORGANIZATION SUCH AS THE NATIONAL ACADEMY OF SCIENCES, SERVED BY A GROUP OF 16 PERSONS, THE JOINT VIEW OF ALL PARTICIPATING AGENCIES, AND THE POPULATION ALONG PATHWAYS OF MOVEMENT, TO ASSESS THE DEPARTMENT OF TRANSPORTATION IN THE DEVELOPMENT OF THE RISK IDENTIFICATION AND RISK EVALUATION ASPECTS OF THE RISK-BASED FRAMEWORK AND ANALYTICAL METHODS.

CONSIDERATION OF THOSE RECOMMENDATIONS APPLICABLE TO INTERMODAL TRANSPORTATION OF HAZARDOUS COMMODITIES. FMAA COMENDS THE BOARD ON ITS EFFORTS TO DEVELOP A FRAMEWORK FOR ANALYZING THE INTRICATE PROBLEMS CREATED BY THE MOVEMENT OF COMMODITIES THROUGH THE TRANSPORTATION SYSTEMS. 4-25-71 FMAA VERY CONCERNED ABOUT THE TIME ABOUT RAIL MOVEMENTS OF HAZARDOUS COMMODITIES AND ARE PRESENTLY REVISITING SEVERAL APPLICATIONS AND ARE ASKED FOR RESEARCH FUNDING IN FY 72. FMAA REQUESTS THAT THE MATERIAL TRANSPORTATION RESEARCH SUBCOMMITTEE FOR HAZARDOUS SECRETARY FOR SAFETY AND CONSUMER AFFAIRS LETTER THE REQUEST FOR PROPOSAL (RFP) IS INDEED IN RESPONSE TO THE RECOMMENDATIONS IN YOUR SPECIFICALLY. RISK CONCEPTS IN DANGEROUS GOODS TRANSPORTATION REGULATIONS. PROPOSALS IN RESPONSE TO THAT RFP ARE BEING EVALUATED. THE PROJECT IS BEING MANAGED BY THE OFFICE OF HAZARDOUS MATERIALS. THE FIRST STEP IN UTILIZING THE RISK-BASED MATERIALS, THE DEVELOPMENT OF METHODOLOGY WHICH IS NECESSARY TO BE THE TRANSPORTATION OF HAZARDOUS MATERIALS AND RELATED REGULATIONS. WE EXPECT TO APPLY THE RESULTS WITHIN THE DEPARTMENT AND TO MAKE THE CONTRACT RESULTS READILY AVAILABLE TO THE PUBLIC AS WELL AS WITHIN THE GOVERNMENT. I BELIEVE THAT IT WOULD BE MORE MEANINGFUL TO REPORT ON SIGNIFICANT ACCOMPLISHMENTS IN THE APPLICATION OF RISK-BASED METHODS, THAN IT COULD BE TO REPORT ON OR MORE FREQUENT PERIODIC INTERVALS. IN ANY EVENT, THE METHODS MUST BE DEVELOPED BEFORE WE CAN APPLY THEM. PLEASE REST ASSURED THAT WE WILL KEEP YOU INFORMED OF PROGRESS MADE IN DEVELOPMENT AND APPLICATION OF RISK-BASED METHODOLOGY.

RESPONSE

FMAA WILL GIVE CAREFUL CONSIDERATION TO THE RECOMMENDATIONS AS PERTAIN TO THE DEVELOPMENT OF REGULATIONS ON A MODAL BASIS. FMAA WILL COOPERATE FULLY WITH SECRETARY IN CONSIDERATION OF THOSE RECOMMENDATIONS APPLICABLE TO INTERMODAL TRANSPORTATION OF HAZARDOUS COMMODITIES. FMAA COMENDS THE BOARD ON ITS EFFORTS TO DEVELOP A FRAMEWORK FOR ANALYZING THE INTRICATE PROBLEMS CREATED BY THE MOVEMENT OF COMMODITIES THROUGH THE TRANSPORTATION SYSTEMS.

THE USE OF EXISTING ADVISORY GROUPS SHOULD BE CONSIDERED, WHERE THEY INCLUDE THE POINT OF VIEW OF ALL MAJOR SEGMENTS OF THE POPULATION AT-RISK.

RECNU H-71-030
FILE TYPE RECOMMENDATION
IDATE 71 JAN 27
MODE HIGHWAY
PRIORITY
DUE DATE 71 APR 27
STATUS OPEN - UNACCEPTABLE ACTION
FOLLOWUP DATE
BUREAU
DIVISION
MONITOR DATE

REC8UB

TECHNICAL ADVISORS REPRESENTING THE POINT OF VIEW OF A PARTIALITY, OR OTHER PARTIES (INCLUDING ACADEMIC INSTITUTIONS AND NON-FEDERAL PUBLIC AGENCIES) HAVING A CLEAR AND CONTINUING INTEREST IN DANGEROUS GOODS TRANSPORTATION SAFETY, ARE REQUIRED TO HAVE EXPERIENCE OR CAPABILITIES IN SYSTEMS SAFETY ANALYSIS TECHNIQUES OR BE IN TRAINING IN SUCH TECHNIQUES IN ORDER TO SERVE ON SUCH ADVISORY GROUPS.

4-55-11PRA-VERY CONCERNED FOR SOME TIME ABOUT RAIL MOVEMENTS OF HAZARDOUS COMMODITIES AND ARE PRESENTLY REWRITING SEVERAL APPLICABLE REGULATIONS. HAVE ASKED FOR RESEARCH FUNDS IN FY 71 AND 72 BUDGETS FOR HAZARDOUS MATERIAL TRANSPORTATION RESEARCH. 5/1/72 ASSISTANT THE SECRETARY FOR PROPERTY AND CONSUMER AFFAIRS LETTER TO REQUEST FOR PROPOSED HAZARDOUS SPECIFIC INDOOR RESPONSE TO THE RECOMMENDATIONS TRANSPORTATION REGULATIONS. PROPOSALS IN DANGEROUS GOODS TRANSPORTATION REGULATIONS. PROJECTS IN RESPONSE TO THAT RFP ARE BEING EVALUATED. THE PROJECTS ARE BEING MANAGED BY THE OFFICE OF HAZARDOUS MATERIALS. THE FIRST STEP IN UTILIZING THE RISK CONCEPT MUST BE THE DEVELOPMENT OF METHODOLOGY WHICH IS RELEVANT TO TRANSPORTATION OF HAZARDOUS MATERIALS AND RELATED REGULATIONS. WE EXPECT TO APPLY THE RESULTS WITHIN THE DEPARTMENT AND TO MAKE THE CONTACT REPORT READILY AVAILABLE TO THE PUBLIC AS WELL AS WITHIN THE GOVERNMENT. I BELIEVE THAT IT WOULD BE MORE MEANINGFUL TO REPORT ON SIGNIFICANT ACCOMPLISHMENTS IN THE APPLICATION OF RISK-BASED METHODS, THAN IT WOULD BE TO REPORT AT SIX MONTH OR MORE FREQUENT PERIODIC INTERVALS. IN ANY EVENT THE METHODS MUST BE DEVELOPED BEFORE WE CAN APPLY THEM. PLEASE REST ASSURED THAT WE WILL KEEP YOU INFORMED OF PROGRESS MADE IN DEVELOPMENT AND APPLICATION OF RISK-BASED METHODOLOGY.

RESPONSE

PHMA WILL GIVE CAREFUL CONSIDERATION TO THE RECOMMENDATIONS AS PERTAIN TO THE DEVELOPMENT OF REGULATIONS ON A MODAL BASIS. PHMA WILL COOPERATE FULLY WITH SECRETARY IN CONSIDERATION OF THOSE RECOMMENDATIONS APPLICABLE TO INTERMODAL TRANSPORTATION OF HAZARDOUS COMMODITIES. PHMA CONSIDERS THE BOARD ON ITS REPORTS TO DEVELOP A FRAMEWORK FOR ANALYZING THE INTRICATE PROBLEMS CREATED BY THE MOVEMENT OF COMMODITIES THROUGH THE TRANSPORTATION SYSTEMS. 4-55-11PRA-VERY CONCERNED FOR SOME TIME ABOUT RAIL MOVEMENTS OF HAZARDOUS COMMODITIES AND ARE PRESENTLY REWRITING SEVERAL APPLICABLE REGULATIONS. HAVE ASKED FOR RESEARCH FUNDS IN FY 71 AND 72 BUDGETS FOR HAZARDOUS MATERIAL TRANSPORTATION RESEARCH. 5/1/72 ASSISTANT

SECRETARY FOR SAFETY AND CONSUMER AFFAIRS IN LETTERS REQUEST FOR PROPOSAL (RFP), IS NEEDED IN ORDER TO BE RECOMMENDED FOR YOUR SPECIAL STUDY, "RISK CONCEPTS IN DANGEROUS GOODS TRANSPORTATION REGULATION," PROPOSALS IN RESPONSE TO THAT RFP ARE BEING EVALUATED. THE PROJECT IS BEING MANAGED BY THE OFFICE OF HAZARDOUS MATERIALS. THE FIRST STEPS IN UTILIZING THE RISK CONCEPT MUST BE THE DEVELOPMENT OF METHODOLOGY WHICH IS RELEVANT TO THE TRANSPORTATION OF HAZARDOUS MATERIALS AND RELATED REGULATION. WE EXPECT TO APPLY THE RESULTS WITHIN THE CONTRACT AND TO MAKE THE CONTRACT REPORT HEAVILY AVAILABLE TO THE PUBLIC AS WELL AS WITHIN THE GOVERNMENT. I HAVE REQUESTED THAT THE OTHER AGENCIES OF THE AHS RECOMMENDATION, BE REQUESTED TO ACCEPT RESPONSIBILITY FOR THE DEVELOPMENT OF METHODOLOGY IN ORDER TO ACCOMPLISH THE GOALS OF THE CONTRACT. WE ARE CURRENTLY IN THE PROCESS OF DEVELOPING A CONTRACT REQUEST ASKED THAT ALL AGENCIES BE INFORMED OF PROGRESS MADE IN DEVELOPMENT AND APPLICATION OF RISK-BASED METHODOLOGY.

RECNU	H-71-1031
FILE TYPE	RECOMMENDATION
DATE	71 JAN 27
MODE	HIGHWAY
PRIORITY	
DUE DATE	71 APR 27
STATUS	OPEN - ACCEPTABLE ACTION
FOLLOW DATE	
BUREAU	
DIVISION	
MONITOR DATE	

RESULTS

[illegible]

RESPONSE

FINALLY, GIVE CAREFUL CONSIDERATION TO THE RECOMMENDATIONS AS A WHOLE. TO THE DEVELOPMENT OF REGULATIONS IN A RURAL AREA, RISK ANALYSIS WILL COOPERATE FULLY WITH THE CONCEPT OF CONSENSUS. THE CONCEPT OF CONSENSUS IS THE CONCOMITANCE OF THOSE TRANSPORTATION REGULATIONS TO THE LOCAL TRANSPORTATION SITUATION. RISK ANALYSIS IS A CHECK ON THE CONCEPT OF CONSENSUS. CONCEPTS OF RISK ANALYSIS ARE BASED ON THE FACTORS DEVELOPED BY THE RISK ANALYST. THE ANALYST'S CONCEPTS ARE CREATED BY THE MOVEMENT OF CONCEPTS THROUGH THE TRANSPORTATION SYSTEMS. CONCEPTS ARE NOT THE SAME AS REGULATIONS. REGULATIONS ARE VERY CONCERNED FOR SOME TIME, BUT RAIL REGULATIONS ARE CONCERNED FOR A LONG TIME. REGULATIONS ARE MAKING SEVERAL APPLICATIONS AND REGULATIONS ARE CURRENTLY BEING APPLIED TO THE TRANSPORTATION SYSTEMS. RESEARCH FUNDING IN FY 1970 AND 72 BUDGETS FOR HAZARDOUS MATERIAL TRANSPORTATION RESEARCH. 50% ASSISTANT SECRETARY FOR SAFETY AND CONSUMER AFFAIRS. LETTER TO THE SECRETARY FOR SAFETY AND CONSUMER AFFAIRS. REQUEST FOR PROPOSAL (RFP). REQUESTED IN RESPONSE TO THE RECOMMENDATIONS FOR YOUR SPECIAL STUDY. RISK CONCEPTS IN HAZARDOUS GOODS TRANSPORTATION REGULATIONS. PROPOSALS IN RESPONSE TO THAT REQUEST ARE BEING EVALUATED. THE REQUEST IS

BEING MAINTAINED BY THE OFFICE OF HAZARDOUS MATERIALS. THE
 FIRST STEP IN UTILIZING THE RISK CONCEPT MUST BE THE
 DEVELOPMENT OF METHODOLOGY WHICH IS RELEVANT TO
 TRANSCRIPTION OF HAZARDOUS MATERIALS AND RELATED
 REGULATIONS. WE EXPECT TO APPLY THE RESULTS WITHIN THE
 DEPARTMENT AND TO MAKE THE CONTRACT REPORT READILY
 AVAILABLE TO THE PUBLIC AS WELL AS WITHIN THE GOVERNMENT.
 WITH REGARD TO THE OTHER ASPECT OF THE RISK REGULATION,
 I BELIEVE THAT IT WOULD BE MORE MEANINGFUL TO REPORT ON
 SIGNIFICANT ACCIDENTS IN THE APPLICATION OF
 RISK-BASED METHODS, THAN IT WOULD BE TO REPORT AT SIX-MONTH
 OR MORE FREQUENT ERGONOMIC INTERVALS. IN ANY EVENT, THE
 TESTS MUST BE DEVELOPED BEFORE WE CAN APPLY THEM. PLEASE
 MAKE A DEVELOPMENT AND APPLICATION OF RISK-BASED
 METHODOLOGY.

LOG NUMBER
SOURCE
REPORT NO
NOTATION NO
ADATE
ALOC
ASTATE

M-0026
ACCIDENT
MAR-71-7
66
71 APR 02
SERWICK
ME

ABSTRACT

RECNO

M-11065
M-11066
M-11067
M-11068
M-11069

ON APRIL 2, 1971, AT BERNICK, MAINE, A HOSE USED FOR TRANSFER OF A BULK LIQUID CHEMICAL CARGO FROM A MOTOR VEHICLE TO A TANNERY STORAGE TANK WAS CORRECTLY ATTACHED TO A FILL LINE LEADING TO AN INDOOR TANK. WHEN THE TRANSFER BEGAN, THE CARGO MIXED WITH THE LIQUID CHEMICAL STORED IN THE INDOOR TANK, RESULTING IN A CHEMICAL REACTION WHICH GENERATED TOXIC GASES. SIX TANNERY WORKERS DIED FROM INHALATION OF THESE GASES. THE NATIONAL TRANSPORTATION SAFETY BOARD OF THE FEDERAL GOVERNMENT HAS DETERMINED THE CAUSE OF THIS ACCIDENT WAS THE FAILURE OF THE TANNERY TO OBTAIN INFORMATION FROM THE DRIVER OF THE CARGO FROM THE VEHICLE TO OBTAIN THE CORRECT TYPE OF TANK. THE VEHICLE HAD A PLATE STORAGE TANK. THE LIKELIHOOD OF THIS FAILURE WAS INCREASED BY THE TANNERY'S LACK OF TRAINING IN INFORMATION VALIDATION AND BY PROCEDURES FOLLOWED DURING SUCH EXCHANGES AND BY THE ABSENCE OF MARKINGS, DIVERS, OR OTHER FEATURES OF THE VEHICLE OR TANNERY PROBLEM WHICH WOULD HAVE PERMITTED SUCH VALIDATION TO BE MADE UNILATERALLY BY EITHER PARTY.

RECNU
FILE TYPE
RECOMMENDATION
DATE 7 OCT 19
MODE HIGH-AY
PRIORITY
DUE DATE 72 JAN 08
STATUS OPEN - UNACCEPTABLE ACTION
FOLLOW DATE
BUREAU
DIVISION
MONITOR DATE

RECSUR

THE DEPARTMENT OF TRANSPORTATION, WITH THE PARTICIPATION OF THE DEPARTMENT OF LABOR AND, IF REQUIRED, THE INTERSTATE COMMERCE COMMISSION, CONDUCT A COMPREHENSIVE INVESTIGATION INTO THE RISKS ASSOCIATED WITH THE DELIVERY OF BULK LIQUID CARGUES FROM MOTOR CARRIER VEHICLES, AND INITIATE THE IMPLEMENTATION OF RISK-REDUCTION MEASURES.

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RESPONSE

82374 MMA LETTER UPDATES STATUS OF ACTION ON THE RECOMMENDATION AS OF JULY 1974. SMCS HAS FOUND THAT RISKS ASSOCIATED WITH THE DELIVERY OF BULK LIQUIDS FROM CARGO TANKS INCLUDES NUMEROUS FACTORS INCLUDING VALVES, DELIVERY HOSE INTEGRITY, EMERGENCY CONTROLS, ETC. THESE FACTORS, AS THEY RELATE TO CARGO TANKS ARE CONSTANTLY BEING REVISED AND WHEN NECESSARY REVISED AND UPDATED. RECENT RULEMAKING IN THIS AREA INCLUDES: MM-135 RELATING TO CRYOGENIC LIQUIDS, MM-66 RELATING TO PO-331 CARGO TANKS, AND MM-110 RELATING TO EMERGENCY CONTROLS ON OLDER HO-330 CARGO TANKS. THE ONGOING NATURE OF REGULATORY WORK IN THIS AREA ELIMINATES THE NEED FOR A SPECIAL STUDY AS INITIATED BY NISS.

LOG NUMBER	H=0039	ARSTRACT
SOURCE	ACCIDENT	
REPORT NO	HAR=72-5	
NOTATION NO	940	
ADATE	71 JUN 08	
ALOC	XACD	
ASTATE	GA	
RECNO		

AN AUTOMOBILE CROSSED OVER THE CENTERLINE OF A TWO-LANE HIGHWAY COLLIDED WITH A TRACTOR-SEMI TRAILER TRANSPORTING 35,000 POUNDS OF EXPLOSIVES. THE AUTOMOBILE DRIVER WAS KILLED IN THE COLLISION, AND FIRE BROKE OUT IMMEDIATELY IN THE CARGO EXPLODED. TWO FIREMEN, A WRECKER DRIVER, AND TWO BYSTANDERS DIED AS A RESULT OF THE EXPLOSION. FIFTY-THREE PEOPLE WERE INJURED, AND PROPERTY DAMAGES ESTIMATED AT OVER ONE MILLION DOLLARS. THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE PROBABLE CAUSE OF THE ACCIDENT WAS THAT THE AUTOMOBILE CROSSED OVER INTO THE TRACTOR-SEMI TRAILER AND COLLIDED WITH THE ONCOMING TRUCK. THE TRUCK DRIVER, CONTINUING CUES WERE: (1) FIRE WITHIN THE TRUCK, (2) FUEL LOSS FROM THE AUTOMOBILE, AND (3) LOCALIZED LEAKAGE FROM THE TRUCK'S DIESEL TANKS. THE NITROGEN-CHARGED OVERPRESSURE VALVE CAUSED DETONATION OF THE EXPLOSIVES, KILLING THE DRIVER. THE TRUCKS TOOK THE FATALITY AND INJURIES WERE NOT THE TRUCKS TOOK THE SYSTEM TO ADVISE ANYONE WITHIN THE DANGER ZONE. CARGO EXPLODED, (2) THE FAILURE TO NOTIFY EMERGENCY SERVICE PERSONNEL PROPERLY AND ACCURATELY OF THE HAZARD INVOLVED, (3) THE DESIGN OF THE FIREMEN TO TRY AND CONTAIN THE HAZARDOUS FIRE, AND (4) BYSTANDERS' DISREGARD FOR LACK OF UNDERSTANDING OF THE TRUCK DRIVER'S MARKINGS.

RECNO H-72-036
 FILE TYPE RECOMMENDATION
 DATE 72 DEC 07
 MODE HIGHWAY
 PRIORITY
 DUE DATE
 STATUS
 FOLLOW DATE
 BUREAU
 DIVISION
 MONITOR DATE

73 MAR 07
 OPEN - UNACCEPTABLE ACTION

RECSUB

STUDY WARNING SYSTEM DEFICIENCIES DEMONSTRATED IN THIS ACCIDENT THE PROPOSAL FOR A HAZARDOUS INFORMATION SYSTEM ISSUED BY OHM ON JUNE 19, 1972 SHOULD BE CAREFULLY REVIEWED TO INSURE THAT WARNINGS OF IMPENDING DANGER AND ADVICE ARE GIVEN IN AN UNDERSTANDABLE MANNER TO THE GENERAL PUBLIC AS WELL AS TO EMERGENCY PERSONNEL. THE CAPABILITY OF THE SYSTEM TO HANDLE A DISTANCE SHOULD BE EQUAL TO THE RANGE OF HAZARDOUS MATERIALS. THE SYSTEM SHOULD NOT RELY ON THE PHYSICAL CONDITION OF THE DRIVER. HOWEVER, THE SYSTEM SHOULD FUNCTION UNDER ALL WEATHER CONDITIONS AND THE RANGE OF HAZARDOUS MATERIALS SHOULD BE SPECIFIED BY REGULATIONS.

RESPONSE

OFFICE OF HAZARDOUS MATERIALS LETTER IS OF THE OPINION THAT THE RECOMMENDATION IS NOT PRACTICAL AND THAT REQUIRED AREAS COULD NOT BE CLEARLY UNDER NORMAL TRANSPORTATION CONDITIONS. JUNE 29, 1973 AN ENTRY IN THE FEDERAL REGISTER ANNOUNCED THAT THE HAZARDOUS MATERIAL REGULATIONS BOARD HAS 1. TERMINATED ITS PROPOSAL TO ADOPT A HAZARD INFORMATION (HI) SYSTEM; 2. PUBLISHED A SET OF PROPOSED CRITERIA FOR EVALUATION OF WARNING SYSTEMS AND REQUESTED PUBLIC COMMENT THEREON; AND 3. ACCEPTED THE PRINCIPLE THAT THE PUBLIC AS WELL AS FIREMEN AND POLICEMEN NEED TO BE ADEQUATELY WARNED OF HAZARDOUS MATERIALS DANGERS IN ACCIDENTS, AND LISTED THIS AS A CRITERION OF THE NPM.

LOG NUMBER
SOURCE
ACCIDENT
REPORT NO
109735
NOTATION NO
DATE
22 MAR 68
ALOC
LYNCHBURG
ASTATE
VA

ABSTRACT

THIS REPORT DESCRIBES AND ANALYZES THE DISTURBANCE
FACTORS OF THE (Lynchburg) CARBON LUTHERAN CHURCH
PRESSURE ON THE ROUTE OF THE LUTHERAN CHURCH
9, 1972, AFTER OVERSIGHTING THE VEHICLE TO THE
AND STRUCK A ROCK EXHAUST, WHICH CAUSED THE
AND PERMITTED THE ROADSIDE TO ESCAPE. MEN
FUTURE INTENTED TO BRINGS, INCLUDING THE
WERE KILLED, AND FIVE OTHERS WERE INJURED.

RECNO

HA33-020
HA33-021
HA33-022
HA33-023
HA33-024
HA33-025
HA33-026
HA33-027
HA33-028
HA33-029

RECNO H-73-021
 FILE TYPE RECOMMENDATION
 IDATE 73 JUL 30
 MODE HIGHWAY
 PRIORITY
 DUE DATE 73 OCT 30
 NSTATUS OPEN - ACCEPTABLE ACTION
 FOLLOWUP DATE
 BUREAU
 DIVISION
 MONITOR DATE

RECSUS

THE OFFICE OF HAZARDOUS MATERIALS STUDY THE WARNING SYSTEM DEFICIENCIES DEMONSTRATED IN THIS ACCIDENT. THE PROPOSAL FOR A HAZARDOUS MATERIAL INFORMATION SYSTEM ISSUED BY OMM ON JUNE 6, 1972 SHOULD BE CAREFULLY REVIEWED TO INSURE THAT WARNINGS OF IMPENDING DANGER AND ADVICE ARE GIVEN IN AN UNDERSTANDABLE MANNER TO THE GENERAL PUBLIC AS WELL AS TO EMERGENCY PERSONNEL. THE CAPABILITY OF THE SYSTEM TO WARN THOSE AT A DISTANCE SHOULD BE EQUAL TO THE RANGE OF THE HAZARD AND SHOULD NOT RELY ON THE PHYSICAL CONDITION OF THE DRIVER. THE SYSTEM SHOULD FUNCTION UNDER ALL WEATHER CONDITIONS AND THE RANGE OF WARNING SHOULD BE SPECIFIED BY REGULATION. (THIS RECOMMENDATION WAS PREVIOUSLY PUBLISHED IN THE BOARD'S REPORT NISB-HAR-72-5, AUTOMOBILE/TRUCK COLLISION FOLLOWED BY FIRE AND EXPLOSION OF DYNAMIC CARGO, U. S. HIGHWAY 78 NEAR MACO, GEORGIA ON JUNE 4, 1971).

RESPONSE

AN ENTRY IN THE FEDERAL REGISTER ANNOUNCED THAT THE HAZARDOUS MATERIALS REGULATIONS BOARD HAS 1. TERMINATED ITS PROPOSAL TO ADAPT HAZARD INFORMATION (HI) SYSTEMS. 2. PUBLISHED A SET OF PROPOSED CRITERIA FOR EVALUATION OF WARNING SYSTEMS AND REQUESTED PUBLIC COMMENT THEREON. AND 3. ACCEPTED THE PRINCIPLE THAT THE PUBLIC AS WELL AS FIREMEN AND POLICEMEN NEED TO BE ADEQUATELY WARNED OF HAZARDOUS MATERIALS DANGERS IN ACCIDENTS, AND LISTED THIS AS A CRITERION OF THE NRPB.

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LOG NUMBER
SOURCE
REPORT NO
NOTATION NO
DATE
ALOC
STATE

RECNO ABSTRACT

THIS REPORT DECIDES AND ANALYZES A SERIES OF COLLISIONS WHICH OCCURRED IN THE NORTH OAKLAND AND SOUTH OAKLAND AREAS OF THE CITY OF OAKLAND, CALIFORNIA, ON SEPTEMBER 21, 1972. A SUMMARY OF THE FACTS OF EACH COLLISION, THE ANALYSIS OF THE COLLISIONS, AND THE CONCLUSIONS OF THE INVESTIGATION ARE SET FORTH IN CHAPTERS 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 8

RECNO
FILE TYPE
DATE
MODE
PRIORITY
REQ DATE
STATUS
MILEAGE
DIVISION
MUNICIPALITY DATE

W73637
REGISTRATION
73 NOV 15
HIGHWAY
70 FEB 15
OPEN - ACCEPTABLE ACTION

RECSUB

THE BUREAU OF MOTOR CARRIER SAFETY OF THE FEDERAL HIGHWAY
ADMINISTRATION (FHWA) STUDY THE EXISTING REGULATIONS AND
REQUIREMENTS IN 49 CFR 178.337, REGARDING LPG CARGO TANKS,
FOR THE PURPOSE OF INSTITUTING MORE EXPLICIT RULE-MAKING
TOWARD REDUCING THE LIKELIHOOD OF LEAKAGE AND SUBSEQUENT
CATASTROPHIC FAILURE OF SUCH CARGO TANKS IN A VARIETY OF
FORESEEABLE TYPES OF ACCIDENT CHARGES.

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RESPONSE

FHWA LETTER STATES THAT RULE MAKING PROCESSES HAD ALREADY
BEEN INITIATED. A NOTICE OF PROPOSED RULE MAKING PUBLISHED
IN THE FEDERAL REGISTER 8/27/73 COVERED MC 330 TANKS
RETROFIT WITH ENERGY DISCHARGE CONTROLS WHICH WOULD BRING
CLOSER MC 330 TANKS UP TO LEVEL OF MC 331 TANKS REGARDING
DISCHARGE CONTROLS. ON 10/2/73 A FINAL RULE WAS PUBLISHED
REQUIRING ADDITIONAL EMERGENCY DISCHARGE CONTROLS ON MC 331
TANKS MANUFACTURED AFTER 3/31/77. WITH REGARD TO NEED FOR
SAFETY DEVICES AT OTHER LOCATIONS ON TANK TRUCKS FURTHER
STUDY IS NEEDED BEFORE REGULATORY ACTION COULD BE TAKEN.
8/23/74 FHWA LETTER REPORTS THAT A FINAL RULE ON MC 330
TANKS IS IN THE COORDINATION PROCESS AND WILL BE SENT TO
THE FEDERAL REGISTER ABOUT SEPTEMBER 1974. THE RULE SENT TO
TANKS TOOK EFFECT 3/31/77. AFTER COORDINATION THROUGH
ALTERNATIVE MEANS DISCLOSED TO ALL INTERESTED PARTIES.
ADVANCED NOTICE PROPOSED RULE MAKING AND SOLICIT
COMMENTS FROM INTERESTED PARTIES.

ABSTRACT

RECNO

H-77-033
H-77-034

[illegible]

RECNO H#77-033
 FILE TYPE RECOMMENDATION
 IDATE 78 JAN 10
 MODE HIGHWAY
 PRIORITY CLASS II
 DUE DATE 78 APR 10
 STATUS OPEN - AWAIT REPLY
 FOLLOW DATE
 BUREAU
 DIVISION
 MONITOR DATE

RESPONSE

RECNO
 FILE TYPE
 IDATE
 MODE
 PRIORITY
 DUE DATE
 STATUS
 FOLLOW DATE
 BUREAU
 DIVISION
 MONITOR DATE

INITIATE STUDIES OF THOSE RAILROAD/HIGHWAY GRADE CROSSINGS IN OKLAHOMA ARE USED BY HIGH-SPEED TRAINS AS WELL AS VEHICLES TRANSPORTING OIL, GAS, AND OTHER HAZARDOUS MATERIALS TO ESTABLISH WHETHER SUCH JOINT USE IS SAFE IN VIEW OF EXISTING CROSSING CHARACTERISTICS AND PROTECTION.

RECNO H#77-034
 FILE TYPE RECOMMENDATION
 IDATE 78 JAN 10
 MODE HIGHWAY
 PRIORITY CLASS II
 DUE DATE 78 APR 10
 STATUS OPEN - AWAIT REPLY
 FOLLOW DATE
 BUREAU
 DIVISION
 MONITOR DATE

RESPONSE

RECNO
 FILE TYPE
 IDATE
 MODE
 PRIORITY
 DUE DATE
 STATUS
 FOLLOW DATE
 BUREAU
 DIVISION
 MONITOR DATE

ENLARGE ITS GRADE CROSSING SAFETY CRITERIA TO INCLUDE USE BY T CARRYING FLAMMABLE OIL AND GAS, AND OTHER HAZARDOUS MATERIALS.

RECOMMENDATION NUMBER	ADDRESSEE RESPONSE DATE	ADDRESSEE
1-76-001		DOT
1-76-002		DOT
1-76-003		DOT
1-76-004		DOT
1-76-005		DOT
1-76-006		DOT
1-76-007		DOT
1-76-008		DOT
1-76-009		DOT
1-76-010		DOT
1-76-011		DOT
1-76-012		DOT
1-76-013		DOT
1-76-014		DOT
1-76-015		DOT
1-76-016		DOT
1-76-017		DOT
1-76-018		DOT
1-76-019		DOT
1-76-020		DOT
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1-76-037		DOT
1-76-038		DOT
1-76-039		DOT
1-76-040		DOT
1-76-041		DOT
1-76-042		DOT
1-76-043		DOT
1-76-044		DOT
1-76-045		DOT
1-76-046		DOT
1-76-047		DOT
1-76-048		DOT
1-76-049		DOT
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1-76-066		DOT
1-76-067		DOT
1-76-068		DOT
1-76-069		DOT
1-76-070		DOT
1-76-071		DOT
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1-76-076		DOT
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1-76-081		DOT
1-76-082		DOT
1-76-083		DOT
1-76-084		DOT
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1-76-092		DOT
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1-76-095		DOT
1-76-096		DOT
1-76-097		DOT
1-76-098		DOT
1-76-099		DOT
1-76-100		DOT

MODE	RECOMMENDATION	ADDRESSEE	ADDRESSEE
HAZARDOUS MATERIALS	NUMBER	RESPONSE DATE	
	HA-75-001		DOT
	HA-75-002		DOT

LOG NUMBER 1-0011
 SOURCE ACCIDENT
 REPORT NO 14978-1
 NOTATION NO 74716 06
 ADATE 74716 06
 ALOC KEATCHEE
 ASATE WA

RECNO ABSTRACT

I-75-001: AT 1210 P.M. ON AUGUST 6, 1974, A SHIPMENT OF
 MONOMETHYLAMINE ATTRAITE SOLUTION (PM) EXPLODED DURING
 ROUTINE SPLICING OPERATIONS IN BURLINGTON, VERMONT.
 I-75-002: APPLE YARD IN KEATCHEE, WASHINGTON. THE PROHIBITED
 I-75-003: TRANSPORTED IN TANK CAR OUPX 14009, OPERATED BY
 OUPXAT DE MEMOURS & COMPANY, UNDER OUT SPECIAL PERMIT.
 5737 TWO PERSONS DIED, 113 WERE INJURED, AND ESTIMATED
 LOSSES EXCEEDED \$7,500,000.

RECNO I-76-001
 FILE TYPE RECOMMENDATION
 DATE 76 MAR 03
 MODE INTERMODAL
 PRIORITY CLASS II
 DUE DATE 76 JUN 01
 STATUS OPEN - ACCEPTABLE ACTION
 FOLLOWUP DATE
 BUREAU
 DIVISION
 MONITOR DATE

REC8US

REQUIRE APPLICANTS SUBMITTING PROPOSALS FOR TRANSPORTATION OF DETONATING MATERIALS TO MAKE AN EXAMINATION OF THE TRANSPORTATION CONDITIONS FOR DETONATION RISKS AND DESCRIBE WHAT THEY FOUND.

RESPONSE

6/1/76 - LETTER FROM MTB STATING CURRENT PRACTICES WILL PART OF THE PROBLEM. A MORE DETAILED PROGRAM OF DETONABLE MATERIAL ACCOUNTABILITY WILL BE ESTABLISHED. GOODS TRANSPORTATION INFORMATION RELATIVE TO THE SIZES OF

RECNO I-76-002
 FILE TYPE RECOMMENDATION
 DATE 76 MAR 03
 MODE INTERMODAL
 PRIORITY CLASS II
 DUE DATE 76 JUN 01
 STATUS OPEN - ACCEPTABLE ACTION
 FOLLOWUP DATE
 BUREAU
 DIVISION
 MONITOR DATE

REC8US

PUBLISH GUIDELINES DESCRIBING METHODS AVAILABLE FOR CONDUCTING SAFETY ANALYSES THAT WOULD FACILITATE THE DISCOVERY OF DETONATION RISKS AND STANDARDS TO BE MET IN PREPARING THE PROPOSAL.

RESPONSE

6/1/76 - LETTER FROM MTB STATING MANY SYSTEMS AVAILABLE - NO ONE BEST. MTB IS CONTINUING STUDY, MUST BE EVALUATED BEFORE RULEMAKING.

RECNO I-76-003
 FILE TYPE RECOMMENDATION
 DATE 76 MAR 03
 MODE INTERMODAL
 PRIORITY CLASS II
 DUE DATE 76 JUN 01
 STATUS OPEN - ACCEPTABLE ACTION
 FOLLOWUP DATE
 BUREAU
 DIVISION
 MONITOR DATE

REC8US

ATEND 49 CFR 173 TO ESTABLISH APPROPRIATE EXPLOSIVES

RESPONSE

6/1/76 - LETTER FROM MTB STATING MTB WILL CONTINUE

CLASSIFICATION, DEFINITIONS AND TEST PROCEDURES THAT
ADDRESSES EVERY KNOWN WAY IN WHICH DETONABLE MATERIALS
COULD EXPLODE ACCIDENTALLY IN TRANSPORTATION.

RECNU I-76-004
FILE TYPE RECOMMENDATION
IDATE 76 MAR 03
MODE INTERMODAL
PRIORITY CLASS III
DUE DATE 76 JUN 01
NSTATUS OPEN - UNACCEPTABLE ACTION
FOLLOWUP DATE 76 OCT 27
BUREAU
DIVISION
MONITOR DATE

RECNU

ESTABLISH REGULATIONS FOR QUALITY SPECIFICATIONS AND
QUALITY CONTROL PROCEDURES IN THE MANUFACTURE,
PACKAGING, AND LOADING OF DETONABLE HAZARDOUS MATERIALS.

.....

REVIEW OF CLASSIFICATION SYSTEM, WILL REFINES SAFETY
ANALYSIS METHODOLOGY, MUCH RESEARCH AND DEVELOPMENT ON
THE SUBJECT.

RESPONSE

6/1/76 - LETTER FROM MTS STATING EXISTING REGULATIONS
SHOULD COVER RECOMMENDATION, PRODUCT QUALITY CONTROL IS
COVERED BY THE ACT ONLY IN TRANSPORTATION, 11/12/76 -
LETTER FROM MTS TO CHAIRMAN TODD AGREEING THAT AN
EDUCATIONAL PROGRAM REGARDING QUALITY CONTROL IS
NECESSARY (RESPONSE TO 10/27/76 LETTER FROM MTS83)
4/27/77 - MTS/MTS QUARTERLY MEETING, MTS BELIEVES AN
EDUCATIONAL PROGRAM TO BROADEN THE AWARENESS OF THE
MANUFACTURER, SHIPPER, OR CARRIER TO INCLUDE THE
PRODUCTIVE OF PRODUCT QUALITY CONTROL WOULD BE FAR MORE
PRODUCTIVE THAN PROMULGATING A NEW SET OF REGULATIONS.
IN THE MEETING, MTS/MTS OFFERED THE SAMPLE VEHICLES
THAT MTS HAS PLISHED TO EMPHASIZE THE NEED OF FURTHER
AWARENESS OF THE PUBLIC ON PRODUCT QUALITY CONTROL.

LOG NUMBER I-0014
 SOURCE OTHER
 REPORT NO 1898A
 NOTATION NO 75 OCT 20
 ADATC
 ALOC
 ASTATE

ABSTRACT

ON JANUARY 1, 1984, AT DUNRETH, INDIANA, THREE PERSONS WERE KILLED AND SEVERAL OTHERS WERE INJURED WHEN A TRUCK CARRIED A LOAD OF HAZARDOUS MATERIALS ROLLED OUT OF A TRAILER. THE NATIONAL TRANSPORTATION SAFETY BOARD RECOMMENDED IMPROVING THE TRAINING METHODS AVAILABLE TO LOCAL EMERGENCY ORGANIZATIONS, SO THAT THEY COULD BE BETTER PREPARED TO HANDLE FUTURE HAZARDOUS MATERIALS EMERGENCIES. NUMEROUS ACTIONS HAVE BEEN TAKEN SINCE THAT RECOMMENDATION, BUT CASUALTIES AMONG EMERGENCY PERSONNEL CONTINUE. EXISTING ACCIDENT DATA GATHERING SYSTEMS ARE NOT ROUTINELY USED TO ENHANCE HAZARDOUS MATERIALS EMERGENCY TRAINING AT RAILROADS. HOWEVER, NO PROCEDURE EXISTS FOR GATHERING THE SAFETY LESSONS LEARNED, CONVERTING THEM INTO IMPROVED TRAINING, AND THEN PROVIDING THAT TRAINING TO THE EMERGENCY SERVICE PERSONNEL WHO MUST BE PREPARED TO COPE WITH FUTURE INCIDENTS. TO REDUCE THE VULNERABILITY OF FIREMEN AND OTHER EMERGENCY PERSONNEL IN FUTURE HAZARDOUS MATERIALS EMERGENCIES, A PROCEDURE SHOULD BE ESTABLISHED SO THAT NEEDED INFORMATION WILL BE AVAILABLE TO UPGRADE TRAINING PROGRAMS.

RECNU

I-76-009
 I-76-010
 I-76-011

PROGRAMS FOR LAW-ENFORCEMENT AND FIREFIGHTING
PERSONNEL.

RECNO I-76-011
RECOMMENDATION
FILE TYPE 76 OCT 20
MODE INTER-MODAL
PRIORITY CLASS II
DUE DATE 77 JAN 19
STATUS OPEN - UNACCEPTABLE ACTION
FOLLOWUP DATE 78 MAY 01
BUREAU
DIVISION
MONITOR DATE

RECUSR
DEVELOP A PROCEDURE TO USE THE EMERGENCY RESPONSE INFORMATION ON DEALING WITH EMERGENCIES TO REVIEW PERIODICALLY THE QUALITY OF ADVICE WHICH DOT PROVIDES TO AGENCIES WITH REGARD TO HAZARDOUS MATERIALS TRANSPORTATION EMERGENCIES. PERIODICALLY REVIEW THE OPERATIONAL EXPERIENCE IN DEALING WITH HAZARDOUS MATERIALS EMERGENCIES TO ASSURE THAT THE PRACTICES RECOMMENDED ARE APPROPRIATE.

SEEK IT. THE QUANTITY OF INFORMATION AVAILABLE TO THE BUREAU IS NOT SUFFICIENT TO JUSTIFY A MAJOR DIVERSION OF AGENCY RESOURCES INTO A FORMAL PROGRAM OF ADVICE TO EMERGENCY RESPONSE AGENCIES ACHROSS THE UNITED STATES. 2/24/78 - NTSB LETTER TO DOT ADVISING THEM THAT NTSB IS CONSIDERING CLOSING ITS FILES ON THESE RECOMMENDATIONS WITH ACTION BY DOT CLASSIFIED AS UNACCEPTABLE. NTSB WANTED TO OFFER DOT THE OPPORTUNITY TO REEVALUATE THE DEPARTMENT'S POSITION ON THIS IMPORTANT MATTER. 3/13/78 - DOT LETTER IN RESPONSE TO NTSB LETTER OF 2/24/78 ADVISING THAT THE ACTING DIRECTOR OF THE RESEARCH AND SPECIAL PROGRAMS DIRECTORATE AND THE ACTING DIRECTOR OF THE MATERIALS TRANSPORTATION BUREAU HAVE BEEN ASKED TO REEVALUATE THE BUREAU'S EARLIER RESPONSE AND TO MONITOR NTSB REQUEST FOR A MEETING TO DISCUSS THE MATTER.

RESPONSE

3/11/77 - LETTER FROM NTSB STATING THAT THIS RECOMMENDATION IS REFUSED. THE INFORMATION AVAILABLE TO THE BUREAU ON EMERGENCY RESPONSE ACTIONS DOES NOT REQUIRE A FORMAL INTERNAL REVIEW PROCESS. A FORMAL INTERNAL REVIEW PROCESS WILL BE RECONSIDERED AT SUCH TIME AS CONDITIONS WARRANT. 2/24/78 - NTSB LETTER TO DOT ADVISING THAT NTSB IS CONSIDERING CLOSING ITS FILES ON THESE RECOMMENDATIONS WITH ACTION BY DOT CLASSIFIED AS UNACCEPTABLE. NTSB WANTED TO OFFER DOT THE OPPORTUNITY TO REEVALUATE THE DEPARTMENT'S POSITION ON THIS IMPORTANT MATTER. 3/13/78 - LETTER FROM DOT IN RESPONSE TO NTSB LETTER OF 2/24/78. THE ACTING DIRECTOR OF THE RESEARCH AND SPECIAL PROGRAMS DIRECTORATE AND THE ACTING DIRECTOR OF THE MATERIALS TRANSPORTATION BUREAU HAVE BEEN ASKED TO REEVALUATE THE BUREAU'S EARLIER RESPONSE AND TO MONITOR NTSB REQUEST FOR A MEETING TO DISCUSS THE MATTER.

RECNO I-77-001
FILE TYPE RECOMMENDATION
DATE 77 APR 25
MODE INTER-LOCAL
PRIORITY 7
ORIGIN 7
DATE 7 JUL 86
STATUS OPEN - ACCEPTABLE ACTION
FOLLOWUP DATE
BUREAU
DIVISION
MONTHLY DATE

RECSUB
DEVELOP GUIDELINES FOR LOCAL AND STATE AGENCIES TO USE
IN DESIGNATING AND PERIODICALLY REVIEWING ROUTES FOR
THE TRANSPORTATION OF HAZARDOUS MATERIALS AS A MEANS OF
REDUCING INJURY AND DAMAGE FROM ACCIDENTS INVOLVING
HAZARDOUS MATERIALS IN THEIR JURISDICTIONS.

RESPONSE
LETTERS FROM PHAI DISCUSSES 49 CFR 392.9 REGARDING MOTOR
CARRIERS TO AVOID HEAVILY POPULATED AREAS, TUNNELS,
NARROW STREETS, ETC. WHEN TRANSPORTING HAZARDOUS
MATERIALS. ENCLOSED COPY OF A SUMMARY OF HIGHWAY
FACILITIES WHERE HAZARDOUS MATERIALS ARE RESTRICTED.
DISCUSSES COMPLICATIONS FROM NEW YORK CITY CASE IN WHICH
THE CITY WILL NOT ALLOW RADIOACTIVE MATERIAL TO BE
TRANSPORTED THROUGH THE CITY. MAY 8, 1978 - LETTER FROM
PHAI TRANSMITTED COPY OF MTB INCONSISTENCY RULING NO. 1
FROM NEW YORK CITY HEARING. RULING FOUND FEDERAL
PREEMPTION OVER LOCAL LAWS NOT TO BE ASSERTED. HOWEVER,
DECISION QUESTIONS PRUDENCE OF HAZARDOUS MATERIALS
ROUTINGS OR TRAFFIC DIVERSIONS MADE SOLELY BY LOCAL
AUTHORITIES. MTB WILL INITIATE RULEMAKING ACTION WITHIN
60 DAYS ON THIS MATTER. PHAI WILL COOPERATE WITH MTB AND
WILL EXPLORE POSSIBLE DEVELOPMENT OF GUIDELINES IN
RELATIONSHIP TO NATIONAL PROBLEM.

LOG NUMBER 1-0016
 SOURCE ACCIDENT
 REPORT NO 2191
 NOTATION NO 77 MAR 31
 ADATE ROCKINGHAM
 ALOC NC
 ABYTE

ABSTRACT

AT 7121 A.M. ON MARCH 31, 1977, 29 CARS OF A SEABOARD COAST LINE (SCL) TRAIN DERAILED IN A RURAL AREA NEAR ROCKINGHAM, NORTH CAROLINA. TWO DERAILED PLACARS WERE EACH CARRYING TWO 4000 GALLON STEEL CYLINDERS CONTAINING HIGHLY TOXIC URANIUM HEXAFLUORIDE. ALL CYLINDERS BROKE AWAY FROM THE PLACARS DURING THE DERAILMENT AND WERE SCATTERED AMONG THE WRECKAGE. THE DERAILMENT ALSO CAUSED A FIRE INVOLVING A LOAD OF AMMONIUM NITRATE. ONE PERSON WAS INJURED AS A RESULT OF THE ACCIDENT, AND PROPERTY DAMAGE WAS ESTIMATED TO BE \$750,000.

RECNO

1-77-008
 1-77-009

RECNU
FILE TYPE
DATE
MODE
PRIORITY
DUE DATE
STATUS
FOLLOW DATE
BUREAU
DIVISION
MONITOR DATE

I-77-003
RECOMMENDATION
77 NOV 01
INTER-MODAL
CLASS II
78 JAN 31
OPEN - UNACCEPTABLE ACTION

REC8UB

DEVELOP AND DISSEMINATE GUIDELINES FOR EMERGENCY RESPONSE PROCEDURES IN TRANSPORTATION ACCIDENTS INVOLVING RADIOACTIVE MATERIALS THAT WILL COORDINATE ONSCENE LEADERSHIP DURING ALL STAGES OF THE EMERGENCY AND IDENTIFY THE RESPONSIBILITIES OF THE RESPONDING FEDERAL, STATE, AND LOCAL AGENCIES IN REDUCING INJURY AND DAMAGE IN SUCH EMERGENCIES.

RESPONSE

LETTER FROM SECRETARY DOT TRANSMITTING COPY OF, PR DATED WEDNESDAY, DECEMBER 22, 1975, "RADIOLOGICAL EMERGENCIES" -GSA OUTLINES RESPONSIBILITIES OF VARIOUS FEDERAL AGENCIES FOR PLANNING FOR INCIDENTS INVOLVING RADIOACTIVE MATERIALS AND COPY OF "GUIDE AND EXAMPLE PLAN FOR DEVELOPMENT OF STATE EMERGENCY RESPONSE PLAN". DOT FULLY ENDORSES BOTH RECOMMENDATIONS AND SUBMITS THE FEDERAL REGISTER PUBLICATION ON MEASURES DESIGNED TO ACHIEVE THE OBJECTIVES OF THE RECOMMENDATION.

REC8UB

ESTABLISH PROCEDURES TO MINIMIZE THE TIME REQUIRED TO IDENTIFY RADIATION DANGERS AT ACCIDENT SITES WHEN RADIOACTIVE MATERIALS ARE INVOLVED.

RESPONSE

RECNU
FILE TYPE
DATE
MODE
PRIORITY
DUE DATE
STATUS
FOLLOW DATE
BUREAU
DIVISION
MONITOR DATE

I-77-003
RECOMMENDATION
77 NOV 01
INTER-MODAL
CLASS II
78 JAN 31
OPEN - AWAIT REPLY

LOG NUMBER I-0021
 SOURCE OTHER
 REPORT NO
 NOTATION NO 2239
 ADAYE 78 JAN 17
 ALUC
 ASTATE

ABSTRACT

I-78-001
 INTERNATIONAL TRADE IN HAZARDOUS MATERIALS BY THE UNITED STATES IS A MULTI-BILLION DOLLAR ACTIVITY AFFECTING ALL TRANSPORTATION MODES. IN SHIPPING THESE MATERIALS U.S. MANUFACTURERS AND CARRIERS MUST COMPLY WITH U.S. DEPARTMENT OF TRANSPORTATION (DOT) REGULATIONS AS WELL AS RULES OF OTHER COUNTRIES IN WHICH THE GOODS MOVE. THE NAME AND REFERENCE NUMBER USED FOR A COMMODITY FREQUENTLY DIFFERS AMONG THESE REGULATIONS. TO INSURE THE SAFE SHIPMENT OF HAZARDOUS MATERIALS UNDER U.S. REGULATIONS, THE DOT SHOULD PUBLISH A COMPLETE HAZARDOUS MATERIALS LIST THAT CROSS-REFERENCES COMMODITY DESCRIPTIONS AND CODE NUMBERS IN DOT AND INTERNATIONAL REGULATIONS. THE LIST COULD PROVIDE VALUABLE SAFETY BENEFITS. MANUFACTURERS COULD CORRECTLY DESCRIBE SHIPMENTS, DEVELOPMENT OF SAFETY CASES FOR RISK ANALYSIS, AND IMPROVED SAFETY PROCEDURES THROUGH LOSS ANALYSIS OF COMMODITY STATISTICS. REFERENCE NUMBERS COULD AID IN CHECKING SHIPMENTS FOR COMPLIANCE WHEN THEY ARE TENDERED TO CARRIERS.

RECNO I-78-001
 FILE TYPE RECOMMENDATION
 IDATE 78 JAN 17
 MODE INTERPOL
 PRIORITY
 CLASS II
 DUE DATE
 DUE DATE
 NOTATION OPEN - UNACCEPTABLE ACTION
 SCHEDULE
 SCHEDULE DATE
 DIVISION
 DIVISION
 MONITOR DATE

REC308

DEVELOP, PUBLISH, AND MAINTAIN AN OFFICIAL LIST OF
 REGULATED HAZARDOUS MATERIALS THAT CROSS-REFERENCES ALL
 U.S., U.N., ICDA, AND IATA COMMODITY DESCRIPTIONS AND
 REFERENCE NUMBERS. THE LIST SHOULD BE ARRANGED FOR
 CONVENIENT USE BY ALL PERSONS ENGAGED IN THE EXPORT OR
 IMPORT OF HAZARDOUS MATERIALS.

RESPONSE

4/25/78 - LETTER FROM MTB STATING MTB AGREES WITH THE
 RECOMMENDATION. MTB PROPOSES REDEFINING THE ICDA LIST
 SOON TO BE PUBLISHED RATHER THAN THE IATA AS ICDA SPEAKS
 FOR THE INTERNATIONAL COMUNITY OF GOVERNMENTS AND IATA
 DOES NOT. A REGULATORY PROJECT HAS BEEN INITIATED BY
 MTB TO REDUCE A CROSS-REFERENCE LISTING OF U.N., ICDA,
 AND ICDA DESCRIPTIONS THAT WILL BE AUTHORIZED FOR USE
 WITHIN THE U.S. FOR INTERNATIONAL SHIPMENTS.

LOG NUMBER 1-0022
SOURCE SPECIAL STUDY
REPORT NO HZM-78-1
NOTATION NO 22418
ADATE 76 AUG 31
ALUC GADSDEN
ASTATE AL

RECHQ ABSTRACT

1-78-002 THE NTSB CONDUCTED A SPECIAL INVESTIGATION INTO SELECTED
1-78-003 SAFEGUARDS AGAINST BULK GASOLINE DELIVERY RISKS AT
1-78-004 AUTOMOTIVE SERVICE STATIONS. THIS INVESTIGATION WAS
BASED ON A CRITICAL REVIEW OF A FIRE AND EXPLOSION NEAR
GROUSE, ALABAMA ON AUGUST 31, 1976, WHICH KILLED 3
PERSONS AND INJURED 28 PERSONS. THE SAFETY BOARD'S
FINDINGS AND RECOMMENDATIONS ARE:
1. THE NTSB SHOULD CONDUCT A SPECIAL INVESTIGATION
2. NEBERT SHOULD OVERSEE ALL BULK GASOLINE DELIVERY FIRE
3. AND EMPLOYERS OF THE INVESTIGATION DISCLOSED THREE AREAS
4. IN WHICH RISKS OF FIRE AND EXPLOSIONS AT SERVICE
5. STATIONS WITH ABOVEGROUND STORAGE TANKS MAY BE REDUCED.

RECNO I-78-002
 FILE TYPE RECOMMENDATION
 IDATE 78 MAR 09
 MODE INTER-MODAL
 PRIORITY CLASS II
 DUE DATE 78 JUN 07
 NSTATUS OPEN - A*AIT REPLY
 POLLUN DATE
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

ESTABLISH A PROGRAM WITH THE NATIONAL FIRE PROTECTION ASSOCIATION TO PROVIDE OFFICIALS ACTING UNDER SECTIONS 1050 AND 1060 OF NFPA CODE NO. 30 WITH GUIDELINES FOR IDENTIFYING "RECOGNIZED HAZARDS" AT SERVICE STATION FACILITIES, SO THAT THIS CODE IS APPLIED MORE UNIFORMLY WITHIN THE STATES.

RESPONSE

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RECNO I-78-003
 FILE TYPE RECOMMENDATION
 IDATE 78 MAR 09
 MODE INTER-MODAL
 PRIORITY CLASS II
 DUE DATE 78 JUN 07
 NSTATUS OPEN - A*AIT REPLY
 POLLUN DATE
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

DEVELOP A PROCEDURE FOR IDENTIFYING AND REVIEWING THE "RECOGNIZED HAZARDS" AT ALL GASOLINE SERVICE STATIONS IN WHICH VARIANCES FROM NFPA CODE NO. 30 HAVE BEEN AUTHORIZED TO DETERMINE WHICH SERVICE STATIONS IN A STATE CONSTITUTE AN UNUSUAL SAFETY RISK.

RESPONSE

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RECNO
 FILE TYPE
 IDATE
 MODE
 PRIORITY
 DUE DATE
 NSTATUS
 FOLLOW DATE
 BUREAU
 DIVISION
 MONITOR DATE

I-78-004
 RECOMMENDATION
 75 MAR 09
 INTERMODAL
 CLASS II
 OPEN - AWAIT REPLY

RECDSUB

DEVELOP A PROGRAM TO INFORM LOCAL FIREFIGHTERS OF THE
 USUAL RISKS THAT EXIST AT SERVICE STATIONS WHERE THE
 CODE HAS BEEN RELAXED, SO THAT FIREFIGHTERS MAY RESPOND
 IN THE SHORTEST POSSIBLE WAY TO EMERGENCIES AT SUCH
 FACILITIES.

RESPONSE

.....

LOG NUMBER I-0023
 SOURCE SPECIAL STUDY
 REPORT HZM-78-1
 NOTATION NO 22414
 ADATE 76 AUG 31
 ALOC SAUSDEN
 ASSTATE AL

ABSTRACT

RECNO

I-78-005

THE NTSB CONDUCTED A SPECIAL INVESTIGATION INTO SELECTED HAZARDOUS BULK OILS DELIVERED BY TANK VEHICLES TO AUTOMOTIVE SERVICE STATIONS. THIS INVESTIGATION WAS BASED ON A CRITICAL REVIEW OF A FIRE AND EXPLOSION NEAR GARDEN ALABAMA, ON AUGUST 31, 1976, WHICH KILLED 3 PERSONS AND INJURED 24 PERSONS. THE SAFETY BOARD'S FINDINGS ARE REPORTED IN ITS SPECIAL INVESTIGATION REPORT, "AN OVERVIEW OF A BULK GASOLINE DELIVERY FIRE AND EXPLOSION." THE INVESTIGATION SHOWED THAT RISKS ENCOUNTERED DURING DELIVERY OF GASOLINE AT SERVICE STATIONS WITH ABOVEGROUND STORAGE TANKS CAN BE REDUCED BY INSPECTING PERIODICALLY HAZARDOUS MATERIALS SAFETY EQUIPMENT ON TANK VEHICLES.

RECNO 1-78-005
 FILE TYPE RECOMMENDATION
 DATE 78 MAY 09
 MODE INTERPOLAL
 PRIORITY CLASS II
 DUE DATE 78 JUN 07
 MATYU8 OPEN - ANAT REPLY
 FOLLOWUP DATE 78 MAY 30
 BUREAU
 DIVISION
 MONITOR DATE

REC808

RESPONS

STUDY WAYS IN WHICH STATES MIGHT ASSURE PERIODIC
 INSPECTION OF REQUIRED HAZARDOUS MATERIALS SAFETY
 EQUIPMENT ON TANK VEHICLES WHICH TRANSPORT HAZARDOUS
 MATERIALS WITHIN A SINGLE STATE, AND REPORT ITS FINDINGS
 TO THE SAFETY BOARD WITHIN A REASONABLE TIME.

ABSTRACT

[illegible]

RECORD

I-78-006	.	.	.
I-78-007	.	.	.

LOG NUMBER I-0026
 SOURCE OTHER
 REPORT NO SEC-78-2
 NOTATION NO 2337A
 ADAPTE 78 APR 06
 ALDC
 ASTATE

ABSTRACT

RECNU

I-74-008

ON APRIL 6, 1978, THE NATIONAL TRANSPORTATION SAFETY BOARD CONCLUDED A 3-DAY PUBLIC HEARING ON RAILROAD DERAILMENTS AND THE CARRIAGE OF HAZARDOUS MATERIALS. THE HEARING WAS PROMPTED BY THE INCREASING NUMBER OF DERAILMENTS NATIONWIDE, ESPECIALLY THOSE INVOLVING THE RELEASE OF HAZARDOUS MATERIALS FROM RAIL TANK CARS. FORTY-NINE WITNESSES FROM THE JOURNAL TANK CARS, TANK CAR BUILDERS AND OPERATORS, RAILROAD INDUSTRY, TANK CAR BUILDERS AND OPERATORS, SHIPPERS, FREIGHT AND LOCAL OFFICIALS, FIREFIGHTERS, EMERGENCY RESPONDERS AND LOCAL OFFICIALS TESTIFIED. THE BOARD CONCLUDED THAT THE CURRENT LEVEL OF SAFETY IN THE RAIL TANK CARS IS NOT ADEQUATE TO PROTECT THE PUBLIC FROM THE RELEASE OF HAZARDOUS MATERIALS FROM RAIL TANK CARS. THE BOARD RECOMMENDED THAT THE RAIL TANK CARS BE DESIGNED AND DEVELOPED TO PROVIDE THE BENEFIT OF AN ACCURATE SAFETY ASSESSMENT.

RECNU
 FILE TYPE
 IDATE
 MODE
 PRIORITY
 DUE DATE
 STATUS
 FOLLOW DATE
 BUREAU
 DIVISION
 MONITOR DATE

I-78-Q08
 RECOMMENDATION
 78 JUN 29
 INTERMODAL
 CLASS II
 78 SEP 27
 OPEN - AWAIT REPLY

REC8UR

RESPONSE

DEVELOP, FOR USE BY THE ASSOCIATION OF AMERICAN
 RAILROADS, TANK CAR BUILDERS, AND SHIPPERS, PROCEDURES
 AND METHODS THAT WILL ASSURE THAT THE BEST AVAILABLE
 SAFETY ANALYSIS TECHNOLOGY IS APPLIED TO IDENTIFY AND
 CONTROL RISKS INVOLVED IN TANK CAR TRANSPORTATION OF
 HAZARDOUS MATERIALS.

RECNO 1-78-009
FILE TYPE RECOMMENDATION
IDATE 78 JUN 29
MODE INTERMODAL
PRIORITY CLASS II
DUE DATE 78 SEP 27
NSTATUS OPEN - ACCEPTABLE ACTION
FOLLOW DATE 78 NOV 06
BUREAU
DIVISION
MONITOR DATE

RECUSUR

DEVELOP AND IMPLEMENT A SAFETY PLAN FOR UTILIZING THE
BEST AVAILABLE SCIENTIFIC ANALYSIS TECHNOLOGY TO DETERMINE
REGULATORY ACTIONS NECESSARY TO MAINTAIN CONTROL
HAZARDOUS MATERIALS TRANSPORTATION RISKS.

RECNO 1-78-010
FILE TYPE RECOMMENDATION
IDATE 78 JUN 29
MODE INTERMODAL
PRIORITY CLASS II
DUE DATE 78 SEP 27
NSTATUS OPEN - ACCEPTABLE ACTION
FOLLOW DATE 79 MAR 29
BUREAU
DIVISION
MONITOR DATE

RECUS3

SUPPLY THE LEADERSHIP REQUIRED TO ESTABLISH AN ADEQUATE
NATION-WIDE HAZARDOUS MATERIALS EMERGENCY RESPONSE
NETWORK ABLE TO MEET ALL FACTS OF HAZARDOUS MATERIALS
EMERGENCY RESPONSE NEEDS, USING EXISTING STATE AND
PRIVATE RESOURCES WHENEVER POSSIBLE.

RESPONSE

MTB LETTER1 MTB IS CONDUCTING A REVIEW OF ALL KNOWN
TECHNOLOGY IN THE FIELD OF RISK ANALYSIS. MTB IS IN THE
PROCESS OF DEVELOPING A WORK PLAN FOR SAFETY ANALYSIS IN
THE REGULATORY AND EXEMPTION PROCESSES. MTB ALSO IS
WORKING WITH A NUMBER OF CONTRACT STUDIES IN THE AREA OF
RISK ANALYSIS.

RESPONSE

THE SECRETARY HAS DIRECTED THE COMMANDANT OF THE COAST
GUARD TO DEVELOP AN IMPLEMENTATION PLAN FOR EXPANDING
THE PRESENT DEPARTMENTAL EMERGENCY RESPONSE CENTER AND
INTEGRATING IT WITH EXISTING PRIVATE INDUSTRY EMERGENCY
RESPONSE SYSTEMS. THERE IS A NEED FOR A NATIONAL EMERGENCY
RESPONSE COMMUNICATIONS NETWORK INVOLVING ALL LEVELS OF
GOVERNMENT AS WELL AS EXISTING INDUSTRY MECHANISMS TO
MITIGATE THE EFFECTS OF AN INCIDENT. THE DEPARTMENT
BELIEVES THAT THE COAST GUARD'S NATIONAL RESPONSE CENTER
(NRC) PROVIDES THE APPROPRIATE MECHANISM FOR A SINGLE
TELEPHONE NUMBER RESPONSE SYSTEM. SUCH A RESPONSE
SYSTEM WOULD COMPLEMENT RATHER THAN REPLACE CHEMTREC.
WHEREAS NOTIFYING CHEMTREC IS STRICTLY VOLUNTARY,
CONSIDERATION WILL BE GIVEN TO MANDATING NOTIFICATION
TO THE NATIONAL RESPONSE CENTER OF A HAZARDOUS MATERIALS
INCIDENT THROUGH REGULATION. THE TASK REMAINING IS TO
MAKE THESE RESOURCES PROMPTLY AVAILABLE IN A SIMPLE WAY TO
THE EMERGENCY PERSONNEL FIRST ON THE SCENE.

RECNO I-78-011
FILE TYPE RECOMMENDATION
DATE 7 JUN 29
PRIORITY INTERMEDIATE
DUE DATE 7 SEP 27
CLASS II
STATUS OPEN - UNACCEPTABLE ACTION
FOLLOW-UP DATE 79 MAR 29
BUREAU
DIVISION
MONITOR DATE

RECSUB

ENCOURAGE STATES TO UPGRADE HAZARDOUS MATERIALS
EMERGENCY HANDLING CAPABILITIES, INCLUDING STATE OR
REGIONAL ONE-CALL NOTIFICATION SYSTEMS THAT WILL SERVE
THE NEEDS OF LOCAL PUBLIC SAFETY OFFICIALS IN
SIGNIFICANT HAZARDOUS MATERIALS TRANSPORTATION
EMERGENCIES, AND SUPPORT DEVELOPMENT OF GUIDELINES BY
WHICH STATES CAN EVALUATE THEIR PROGRAMS.

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RESPONSE

THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), UNDER
CONTRACT TO THE DEPARTMENT, HAS COMPLETED THE
DEVELOPMENT OF A 20-HOUR, SELF-STANDING COURSE
CONSISTING OF SLIDES, TAPES, INSTRUCTOR'S GUIDE AND
STUDENT WORKBOOKS FOR TRAINING OF ALL TYPES OF EMERGENCY
SERVICES PERSONNEL. A PRINCIPAL AIM OF THE COURSE IS TO
ENABLE SUCH PERSONNEL TO CORRECTLY ASSESS AND
EFFICIENTLY DEAL WITH HAZARDOUS MATERIALS TRANSPORT
INCIDENTS. THE COURSE PROVIDES EACH STUDENT WITH A
GENERAL BACKGROUND IN HAZARDOUS MATERIALS TRANS. HE ARE
NOW DEVELOPING ADD-ON SESSIONS TO PROVIDE INDEPTH TRAINING
ON PARTICULAR MATERIALS. THE DEPARTMENT HAS PROVIDED A
COMPLEMENTARY COURSE PACKAGE TO EACH STATE GOVERNOR AND
THE MAJOR OF THE DISTRICT OF COLUMBIA AND HAS ENCOURAGED
THEIR SUPPORT OF ITS APPROACH. THE DEPARTMENT RECOGNIZES
AND ENCOURAGES THE DEVELOPMENT OF LOCAL HAZARDOUS
MATERIALS RESPONSE TEAMS AND STATEWIDE COMMUNICATIONS
NETWORKS.

RECNO I-78-012
FILE TYPE RECOMMENDATION
DATE 7 JUN 29
PRIORITY INTERMEDIATE
DUE DATE 7 SEP 27
CLASS II
STATUS OPEN - ACCEPTABLE ACTION
FOLLOW-UP DATE 79 MAR 29
BUREAU
DIVISION
MONITOR DATE

RECSUB

INCORPORATE REQUIREMENTS IMPOSED ON SHIPPERS AND
CARRIERS BY ENVIRONMENTAL PROTECTION AGENCY HAZARDOUS
MATERIALS REGULATIONS IN 49 CFR 100-179, TO ASSURE THAT
THESE REGULATIONS ARE COMPLETE AND DO NOT CONTAIN
CONTRADICTIONS OR GAPS.

RESPONSE

DOT HAS COMMITTED ITSELF TO WORKING CLOSELY WITH EPA
TO INSURE COMPATIBLE REGULATIONS. ONE OF THE HAZARDOUS
MATERIALS TASK FORCE RECOMMENDATIONS WAS FOR EPA TO
INSURE THAT DOT AND EPA HAVE LISTS OF HAZARDOUS SUBSTANCES
AND WASTES BE AS COMPATIBLE AS POSSIBLE.

LOG NUMBER 1-00264
 SOURCE OTHER
 REPORT NO SER#78-2
 NOTATION NO 2377A
 ADATTE 78 APR 06
 ALUC
 ASTATE

RECNO ABSTRACT

I-75-013

ON APRIL 6, 1978, THE NATIONAL TRANSPORTATION SAFETY BOARD CONCLUDED A 3-DAY ENRANC HEARING ON RAILROAD DERAILMENTS AND THE CARRIAGE OF HAZARDOUS MATERIALS. THE HEARING WAS PROMPTED BY THE INCREASING NUMBER OF DERAILMENTS NATIONWIDE, ESPECIALLY THOSE INVOLVING THE RELEASE OF HAZARDOUS MATERIALS FROM DOT 112A/114A "JUNCO" TANK CARS. FORTY-NINE WITNESSES FROM THE RAILROAD INDUSTRY, TANK CAR BUILDERS AND OPERATORS, SHIPPERS, STATE AND LOCAL OFFICIALS, FREIGHTERS, LABOR REPRESENTATIVES, AND THE PUBLIC TESTIFIED AT THE HEARING. THE EVIDENCE INDICATED THAT RECENT EPA REGULATIONS COVERING 271 ENVIRONMENTALLY HAZARDOUS SUBSTANCES WERE NOT ADEQUATELY COVERED IN DEPARTMENT OF TRANSPORTATION (DOT) HAZARDOUS MATERIALS REGULATIONS.

RECNU
 FILE TYPE
 I-78C13
 RECOMMENDATION
 78 JUN 29
 DATE
 MODE
 INTERNAL
 PRIORITY
 CLASS II
 DUE DATE
 78 SEP 27
 STATUS
 OPEN - ACCEPTABLE ACTION
 FOLLOW-UP DATE
 79 JAN 22
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

ASSIST THE U.S. DEPARTMENT OF TRANSPORTATION IN ASSURING
 THAT HAZARDOUS MATERIALS REGULATIONS ISSUED BY DOT ARE
 IN AGREEMENT WITH EPA'S HAZARDOUS MATERIALS REGULATION.

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RESPONSE

EPA JTRI HAS CONCURS IN THE RECOMMENDATION. IT WILL EN-
 HANCE THE EFFECTIVENESS OF BOTH DOT AND EPA REGULATORY
 PROGRAMS. EPA AND DOT HAVE BEEN WORKING FOR SEVERAL
 MONTHS IN A COOPERATIVE EFFORT TO AMEND 49 CFR 11 AND
 172 TO REQUIRE SHIPPERS TO IDENTIFY SUBSTANCES DESIGNATED
 IN 49 CFR 118. EPA IS ALSO REVISING 40 CFR 117
 ON REPORTING REQUIREMENTS FOR HAZARDOUS MATERIALS DIS-
 CHARGES.

LOG NUMBER 1-0027
 SOURCE OTHER
 REPORT NO
 NOTATION NO 2408
 ADATE
 ALUC
 ASTATE

RECNO

ABSTRACT

178-013 DURING ITS INVESTIGATIONS OF SEVERAL RECENT TAXI CAR
 178-014 DERAILMENTS, THE NATIONAL TRANSPORTATION SAFETY BOARD
 178-015 FOUND THAT ASSISTANCE PROVIDED TO LOCAL PUBLIC SAFETY
 178-016 OFFICIALS DURING WRECKAGE-RESCUE OPERATIONS
 INVOLVING HAZARDOUS MATERIALS NEEDS TO BE IMPROVED.
 SAFETY PROCEDURES ARE NEEDED FOR WRECKAGE REMOVAL,
 PRODUCT TRANSFER, AND REPAIRING OF DAMAGED HAZARDOUS
 MATERIALS CARS.

RECNU
I-78-018
FILE TYPE RECOMMENDATION
IDATE 78 AUG 30
MODE INTERMODAL
PRIORITY CLASS I
DUE DATE 78 NOV 26
NSTATUS OPEN - AAIT REPLY
FOLLOWUP DATE 79 FEB 13
BUREAU
DIVISION
MONITOR DATE

RECSUR

RESPONSE

COMPLETE DEVELOPMENT AND DOCUMENTATION OF SAFETY
PROCEDURES FOR IDENTIFYING AND ASSESSING HAZARDOUS
MATERIALS DANGERS, AND FOR COORDINATING "RECKAGE"
CLEANING OPERATIONS WITH LOCAL PUBLIC SAFETY OFFICIALS.

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RECNU
I-79-015
FILE TYPE RECOMMENDATION
IDATE 78 AUG 30
MODE INTERMODAL
PRIORITY CLASS I
DUE DATE 78 NOV 26
NSTATUS OPEN - AAIT REPLY
FOLLOWUP DATE 79 FEB 13
BUREAU
DIVISION
MONITOR DATE

RECSUR

RESPONSE

DISSEMINATE THESE SAFETY PROCEDURES, AS SOON AS THEY
ARE DEVELOPED, TO ALL RAILROAD PERSONNEL, AND
COORDINATE WITH RAILROAD PERSONNEL, A "RECKAGE-CLEANING"
CONTINGENT PERSONNEL, SPECIAL RESERVE, AND "RECKAGE TEAM"
PERSONNEL, AND PUBLIC SAFETY OFFICIALS IN THE
COMMUNITIES THROUGH WHICH RAILROADS OPERATE.

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RECNU
I-78-016
FILE TYPE RECOMMENDATION
IDATE 78 AUG 30
MODE INTERMODAL
PRIORITY CLASS II
DUE DATE 78 NOV 26
NSTATUS OPEN - AAIT REPLY
FOLLOWUP DATE 79 FEB 13
BUREAU
DIVISION
MONITOR DATE

RECSUR

RESPONSE

ESTABLISH A PROCEDURE FOR REGULAR REVIEWS OF SELECTED
RAILROAD WRECKAGE CLEARING OPERATIONS SO THAT THESE
SAFETY PROCEDURES CAN BE UPGRADED PROPERLY AS NEW
SAFETY CONCERNS ARE IDENTIFIED.

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LOG NUMBER 1-0013
 SOURCE ACCIDENT
 REPORT NO. RRR-76-8
 NOTATION NO. 1849
 DATE 75 SEP 01
 ALOC DES MOINES
 ASSTITE IA

ABSTRACT

AT 4:00 P.M. ON SEPTEMBER 1, 1975, CHICAGO, ROCK
 ISLAND AND PACIFIC RAILROAD (ROCK ISLAND) TRAIN NO.
 81431 DERAILED WHILE DESCENDING A 1-PERCENT GRADE
 ON A 1-DEGREE CURVE ON THE MAIN LINE AT MP 77.9 AT
 THE FOOT OF A FACING POINT SWITCH NEAR DES MOINES,
 IOWA. CARS 24 THROUGH 40 WERE DERAILED. CARS 24
 THROUGH 34 CONTAINED LIQUEFIED PETROLEUM GAS (LPG).
 DURING THE DERAILMENT, SOME CARS WERE PUNCTURED AND
 LPG ESCAPED AND IGNITED. ALL HAZARDOUS MATERIAL IN
 CARS 25 THROUGH 34 WAS LOST, AND 3 PERSONS WERE
 INJURED.

RECNO 1-74-008
 FILE TYPE RECOMMENDATION
 IDATE 74 AUG 24
 MODE INTERMODAL
 PRIORITY CLASS 11
 DUE DATE 74 NOV 22
 NSTATUS OPEN - UNACCEPTABLE ACTION
 FOLLOW DATE
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

RESPONSE

ESTABLISH COMMUNICATION WITH ALL FIRE SERVICES AND
 DISSEMINATE TO THEM SPECIFIC PROCEDURES FOR THE SAFE
 HANDLING OF RAILROAD TRANSPORTATION EMERGENCIES WHICH
 INVOLVE HAZARDOUS MATERIALS.

LETTER FROM THE SECRETARY OF COMMERCE STATING THAT
 THROUGH THE NFPA'S NATIONAL ACADEMY FOR FIRE
 PREVENTION AND CONTROL, THEY WILL PROVIDE FOR DELIVERY
 OF TRAINING COURSES TO EMERGENCY SERVICE PERSONNEL.

RECD 1-74-407
 FILE TYPE RECOMMENDATION
 DATE 76 AUG 24
 MODE INTERMEDIAL
 PRIORITY CLASS II
 DUE DATE 76 NOV 22
 STATUS OPEN - UNACCEPTABLE ACTION
 FOLLOW DATE
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

DEVELOP FIREFIGHTING PROCEDURES WHICH ASSURE SAFETY
 AND MINIMIZE THE DURATION OF FIRE DAMAGED IN ACCIDENTS
 INVOLVING LPG AND OTHER COMPRESSED FLAMMABLE GASES IN
 TANK CARS.

RESPONSE

LETTER FROM THE SECRETARY OF COMMERCE STATING THAT
 THE IFPCA HAS BEEN WORKING WITH THE DEPARTMENT OF
 TRANSPORTATION. THEY HAVE A PROJECT TO DEVELOP AND
 TEST A HAZARDOUS MATERIALS TRAINING COURSE FOR THE
 FIRE SERVICE AND OTHER EMERGENCY PERSONNEL.

LOG NUMBER I-0010
 SOURCE OTHER
 REPORT NO 1053
 NOTATION NO 75 SEP 25
 ADATE
 ALUC
 ASTATE

ABSTRACT

RECHD

HM-75-001
 HM-75-002

THE NATIONAL TRANSPORTATION SAFETY BOARD HAS REVIEWED THE FEDERAL TRANSPORTATION BUREAU'S (FTB) HAZARDOUS MATERIAL REGULATIONS. PROPOSED EXEMPTION PROCEDURES, NOTICE 75-7, PUBLISHED IN THE FEDERAL REGISTER ON AUGUST 4, 1975. THESE PROCEDURES WOULD BE USED IN APPLICATIONS FOR THE PROCESSING OF APPLICATIONS FOR EXEMPTIONS FROM THE FTB REGULATIONS GOVERNING THE TRANSPORTATION OF HAZARDOUS MATERIALS WHICH, EXCEPT FOR BULK TRANSPORTATION BY WATER AND CERTAIN FIRST SUPPLIES, GOVERN THE MOVEMENT OF SUCH MATERIALS BY ANY MODE OF TRANSPORT. THE SAFETY BOARD HAS CONCLUDED THAT THE PROPOSED EXEMPTION PROCEDURES DO NOT FULFILL THE INTENT OF SECTION 107 OF THE HAZARDOUS MATERIALS TRANSPORTATION ACT AND CALLS FOR A SAFETY ANALYSIS AS PRESCRIBED BY THE REGULATIONS TO JUSTIFY THE GRANT OF SUCH EXEMPTION. THE INFORMATION REQUIRED BY THE PROPOSED 107 (1) THROUGH (5), (6), (7), AND (9) WILL NOT RESULT IN A CLEAR PRESENTATION OF SPECIFIC SAFETY CONCERNS AND DOES NOT CONSTITUTE A SAFETY ANALYSIS. IF THE SAFETY CONCERNS ARE NOT CLEARLY ELUCIDATED, THE FTB WILL NOT HAVE THE INFORMATION REQUIRED TO ESTABLISH THE ORDER REGULATORY SAFEGUARDS IN EACH CASE, AND SOME RISKS THAT NEED TO BE CONTROLLED MAY BE OVERLOOKED.

RECNO
FILE TYPE
IDATE
MODE
PRIORITY
DUE DATE
STATUS
FOLLOW DATE
BUREAU
DIVISION
NOTATION DATE

HM-75-001
RECOMMENDATION
75 SEP 25
HAZARDOUS MATERIALS
CLASS I
75 DEC 24
OPEN - ACCEPTABLE ACTION

RECSUB

PRESCRIBE THE CONTENT AND FORM FOR A SAFETY ANALYSIS STATEMENT TO ACCOMPANY APPLICATIONS FOR EXEMPTIONS TO THE MATERIALS TRANSPORTATION BUREAU'S REGULATIONS.

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RECNO
FILE TYPE
IDATE
MODE
PRIORITY
DUE DATE
STATUS
FOLLOW DATE
BUREAU
DIVISION
NOTATION DATE

HM-75-002
RECOMMENDATION
75 SEP 25
HAZARDOUS MATERIALS
CLASS I
75 DEC 24
OPEN - ACCEPTABLE ACTION

RECSUB

REVISE PROPOSED 49 CFR 107.5(a)(9) TO REQUIRE SUBMISSION OF A SAFETY ANALYSIS STATEMENT, IN THE FORM PRESCRIBED BY THE SECRETARY OF TRANSPORTATION, TO SUPPORT THE APPLICANT'S BELIEF THAT HIS PROPOSED EXEMPTION WILL ACHIEVE THE LEVEL OF SAFETY SPECIFIED IN 49 CFR 107.5(a)(9)(i) AND (ii).
G FLAMMABLE OIL AND GAS, AND OTHER HAZARDOUS

RESPONSE

6/1976 - OCM NEWSLETTER STATES THAT MTB WILL UNDERTAKE TASK TO FORMALIZE FORMAT AND METHODOLOGY OF SAFETY ANALYSIS. 3/1/77 - LETTER FROM MTB OFFICE OF HAZARDOUS MATERIALS OPERATIONS STATING THAT THEY DO NOT FEEL IN A POSITION TO QUOTE MODIFY THE REGULATIONS AS YET. ENCLOSED WAS A COPY OF A SAFETY ANALYSIS REQUESTED OF A COMPANY. AFTER GATHERING A FEW MORE OF THESE ANALYSES, MTB WILL SET IN A DEFENSIBLE POSITION TO REQUIRE PRECISE FORMS OF ANALYSES WHICH ARE FEASIBLE.

RESPONSE

10/18/75 LETTER FROM MTB IN REFERENCE TO MTB PROVIDED HAZARDOUS MATERIALS EXEMPTION PROCEDURES THAT WERE PUBLISHED IN THE FEDERAL REGISTER ON 8/4/74, UNDER DOCKET #A-127. NOTICE 75-7. MTB'S RESPONSE WAS INCLUDED IN THE PREAMBLE OF THE FINAL RULE AND MTB RESPONSE TO THE RECOMMENDATION SPECIFICALLY BEGINS AT PAGE 21 OF THE PREAMBLE. SECTION 107.403(b)(2)-(7) AND (9) COVERS SAFETY ANALYSIS STATEMENT REQUIREMENT.

MODE	RECOMMENDATION	ADDRESS	RESPONSE DATE	ADDRESS
***	NUMBER	***	***	***
***	*****	***	***	***
MARINE				
	M-78-017		72 NOV 07	USCG
	M-78-02		76 JAN 05	USCG
	M-78-027		76 JAN 28	USCG
	M-78-009		76 JUN 02	USCG
	M-78-004		78 AUG 11	USCG
	M-78-005		78 AUG 11	USCG
	M-78-006		78 AUG 11	USCG
	M-78-008		78 AUG 11	USCG
	M-78-009		78 OCT 31	USCG
	M-78-035		78 OCT 31	USCG
	M-78-036		79 JAN 46	USCG
	M-78-056		79 JAN 46	USCG
	M-78-057		79 JAN 46	USCG
	M-78-058		79 JAN 46	USCG
	M-78-059		79 JAN 46	USCG
	M-78-060		79 JAN 46	USCG
	M-78-061		79 JAN 46	USCG

NATIONAL FIRE PROTECTION ASSOCIATION

LOG NUMBER
SOURCE
REPORT NO
NOTATION NO
ADATE
ALOC
ASTATE

ABSTRACT

THE PURPOSE OF THIS SPECIAL STUDY IS TO ANALYZE DATA ON MACHINE CASUALTIES INVOLVING THE TRANSPORTATION OF HAZARDOUS MATERIALS TO DETERMINE WHETHER ADDITIONAL SAFETY MEASURES ARE NEEDED TO ASSURE AN ACCEPTABLE LEVEL OF RISK.

M72-008
M72-009
M72-010
M72-011
M72-012
M72-013
M72-014
M72-015
M72-016
M72-017

LOG NUMBER
SOURCE
REPORT NO
NOTATION NO
ADATE
ALOC
ASTATE

#0038
ACCIDENT
PAR7745
1324
72 MAY 68
ST. LAWRENCE RIVER

ABSTRACT

RECNO

M74-020
M74-021
M74-022
M74-023
M74-024

ON MAY 31, 1972, OPERATIONS TO CLEAN THE CARGO TANKS WERE
STARTED ON THE M/V VENUS, ANCHORED IN THE ST. LAWRENCE
RIVER. THE WORKING OF THE TANKS COMMENCED AT 1800.
SHORTLY AFTER MIDNIGHT ON MAY 31, THE CHIEF OF THE
INSTRUCTED THE THIRD MATE TO SUPERVISE THE SPRAYING
OF THE TANKS. AT APPROXIMATELY 0030, AN EXPLOSION
OCCURRED IN THE NO. 1 CENTER TANK, WITHIN A MINUTE, A
SECOND AND MORE SEVERE EXPLOSION CAUSED EXTENSIVE
STRUCTURAL DAMAGE IN THE NO. 1 PORT AND CENTER TANKS.
THE MASTER OF THE VENUS WAS KILLED AS A RESULT OF THE
SECOND EXPLOSION.

RECMU
 FILE TYPE
 RECOMMENDATION
 IDATE 74 AUG 16
 MODE MARINE
 PRIORITY
 DUE DATE 74 NOV 18
 NSTATUS OPEN - ACCEPTABLE ACTION
 FOLLOWUP DATE
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

REQUIRE THAT ALL HAZARDOUS GASES FORCED OUT OF CARGO
 TANKS DURING GAS-FREING OPERATIONS SHALL BE DUCTED TO
 THE SAFEST AREAS AVAILABLE, PREFERABLY OVER THE ODDNATED
 SIDE OF THE SHIP. IN ADDITION, A FLAME SCREEN SHOULD BE
 REQUIRED IN THE DUCT OR AT THE TANK OPENING.

RESPONSE

COAST GUARD DOES NOT HAVE THE TYPE OF INFORMATION
 AVAILABLE TO IMPLEMENT THIS RECOMMENDATION. A TASK GROUP
 HAS BEEN ASSIGNED TO GATHER DATA ON STANDARDS PRACTICE,
 ETC., EVALUATE, THEN PROPOSE THE REGULATION TO RESPOND
 TO THE RECOMMENDATION AS DEEMED APPROPRIATE.

LOG NUMBER M-0006
 ACCIDENT
 REPORT NO 745-75-5
 NOTATION NO 1647
 DATE 73 OCT 03
 ALLOC GULF OF MEXICO
 ABYATE

REC'D ABSTRACT

M-75-019 ON OCTOBER 3, 1973, THE TANKSHIP TEXACO NORTH DAKOTA,
 ENROUTE FROM TAPPA, FLORIDA, TO PORT ARTHUR, TEXAS, IN
 HALLST, SUFFERED AN EXPLOSION IN THE WEST BAY AREA,
 RESULTING IN SEVERE STRUCTURAL DAMAGE AND THE LOSS OF
 MAIN PROPULSION AND AUXILIARY POWER. THREE CREWMEMBERS
 LOST THEIR LIVES AND THREE OTHERS WERE INJURED.
 *
 *
 M-75-026
 M-75-027

RECNU
 FILE TYPE
 IDATE
 MODE
 PRIORITY
 DUE DATE
 STATUS
 FOLLOW DATE
 BUREAU
 DIVISION
 MONTH DATE

M-75-C27
 RECOMMENDATION
 75 OCT 10
 MARINE
 CLASS III
 76 JAN 04
 OPEN - ACCEPTABLE ACTION

RECSUB

ISSUE REGULATIONS TO REQUIRE ADEQUATE MANAGEMENT AND
 SHIPBOARD SUPERVISION DURING THE TRANSPORTATION AND
 HANDLING OF HAZARDOUS CARGOES ON TANKSHIPS.

RESPONSE

USCG LTR. THE COAST GUARD WILL ISSUE MARINE OCCUPATIONAL
 SAFETY AND HEALTH STANDARDS FOR TANK VESSELS. THESE
 REGULATIONS WILL REQUIRE ADEQUATE MANAGEMENT AND
 SHIPBOARD SUPERVISION DURING THE TRANSPORTATION AND
 HANDLING OF HAZARDOUS CARGOES ON TANKSHIPS.

LOG NUMBER M-0087
 SOURCE ACCIDENT
 REPORT NO. PAS-75-6
 NOTATION NO. 1720
 DATE 73 JUN 02
 ALLOC. NE YORK HARBOUR
 ASTATE NY

ABSTRACT

ON 2 JUNE 1973, THE SSC V. SEA WICH LOST STEERING CONTROL IN NEW YORK HARBOR. THE SHIP MOVED OUT OF THE CHANNEL AND STRUCK AND PENETRATED THE ANCHORED BELGIAN TANKSHIP SS ESCO BRUSSELS WICH WAS LOADED WITH CRUDE OIL. THE 31,000 BARRELS OF OIL FROM THREE SUBTERRANEAN TANKS IGTIED AND THE RESULTING FIRE CAULDED BOTH SHIPS. THE MASTER AND TWO CREWMEN DIED ABOARD THE SEA WICH. THE MASTER AND TEN CREWMEN DIED ABOARD THE BRUSSELS AFTER BRANNDING SHIP. ONE CREWMEMBER DIED ABOARD SHIP, AND ONE CREWMEMBER IS MISSING. SOME NEARBY REACHES WERE POLLUTED, AND DAMAGE TO THE SHIPS AND CARGO AMOUNTED TO ABOUT \$22 MILLION.

RECORD

M76-001
 M76-002
 M76-003
 M76-004
 M76-005
 M76-006
 M76-007
 M76-008
 M76-009
 M76-010

REC'D
FILE TYPE
ICATE
MODE
PRIORITY
DUE DATE
STATUS
FOLLOW DATE
BUREAU
DIVISION
MONITOR DATE

M-75-009
RECOMMENDATION
76 MAR 02
AXINE
CLASS II
76 MAY 31
OPEN - ACCEPTABLE ACTION

EXPEDITE IMPLEMENTATION OF THE SAFETY BOARD'S 1972
RECOMMENDATION TO PREPARE EMERGENCY CONTINGENCY PLANS
TO RESPOND TO CATASTROPHIC ACCIDENTS INVOLVING HAZARDOUS
MATERIALS FOR THOSE MATERIALS WHICH CARRY LARGE
QUANTITIES OF THESE MATERIALS. THE CONTINGENCY PLAN
FOR NEW YORK HARBOR SHOULD BE GIVEN PRIORITY.

RECSUB

RESPONSE

THE COAST GUARD PROMULGATED THE NATIONAL DISASTER
PREPAREDNESS PLAN ON 3 APR 73. THIS PLAN REQUIRED
DISTRICT COMMANDERS, COPIES AND COM'S TO COORDINATE
AND PROMOTE THE DEVELOPMENT OF CONTINGENCY PLANS ON A
LOCAL BASIS. THESE PLANS ARE BEING DEVELOPED NATIONWIDE.
EMERGENCY CONTINGENCY PLANS WILL VARY FROM PORT TO PORT
DUE TO TOPOGRAPHY, CLIMATOLOGY, COMMODITIES HANDLED,
TRAFFIC DENSITY AND OTHER NUMEROUS VARIABLES.
THE PORT OF NEW YORK HAS CONTINGENCY PLANS FOR LNG
AND LPG VESSELS. A COMMANDANT'S INSTRUCTION IS BEING
PREPARED WHICH REEMPHASIZES THE REQUIREMENTS OF THE
NATIONAL DISASTER PREPAREDNESS PLAN AND PROVIDES THE
FURTHER GUIDANCE TO DISTRICT COMMANDERS ON DEVELOPMENT
OF CONTINGENCY PLANS FOR ALL VESSELS. IT IS ANTICIPATED
THAT NEW YORK HARBOR WILL HAVE CONTINGENCY PLANS FOR
CATASTROPHIC ACCIDENTS INVOLVING ALL HAZARDOUS MATERIALS
IN THE NEAR FUTURE. 6/17/76 LSCG LTR THE COMMANDANT'S
INSTRUCTION SPOKE TO IN CUN RESPONSE ON 2 JUN 76 HAS
BEEN PROMULGATED. THIS INSTRUCTION REEMPHASIZES THE
REQUIREMENTS FOR DISTRICT COMMANDERS AND COPIES TO
ASSURE THAT PORTS WITHIN THEIR JURISDICTION HAVE
CURRENT AND EFFECTIVE CONTINGENCY PLANS. 2/18/77 USCG
LTR CONTINGENCY PLANS FOR ACCIDENTS INVOLVING
HAZARDOUS MATERIALS ARE PRESENTLY IN VARIOUS STAGES OF
DEVELOPMENT. THE COAST GUARD FIELD UNITS, NEW YORK IS
CURRENTLY DEVELOPING THEIR PLAN.

LOG NUMBER M-0063
 SOURCE ACCIDENT
 REPORT NO MAR-78-2
 NOTATION NO 2261A
 ADATE 75 NOV 13
 ALOC GREENVILLE
 ASTATE MS

ABSTRACT

RECNO

M-78-003 ON NOVEMBER 13, 1975, THE TANK BARGE B-924 CAUGHT FIRE
 M-78-004 IN ONE OF ITS CARGO TANKS AND EXPLODED WHILE BEING
 M-78-005 REPAIRED AT THE BREIT TUNING COMPANY'S REPAIR FACILITY
 M-78-006 IN GREENVILLE, MISSISSIPPI. THE EXPLOSION BLEW THE BOW
 M-78-007 AWAY FROM THE VESSEL WITH SUCH FORCE THAT LARGE
 M-78-008 SECTIONS OF DECK WERE DEPOSITED UP TO 500 YARDS AWAY,
 AND INTERNAL BULKHEADS, SHELL PLATING, AND STRENGTH
 MEMBERS IN PROXIMITY WERE SEVERELY DISTORTED. A
 SECONDARY FIRE ENGULFED THE FORWARD PORTION OF THE
 B-924. THE FIRE, FUELED BY CARGO RESIDUES IN THE B-924,
 REQUIRED OVER 1 1/2 HOURS OF INTENSIVE FIGHTING TO
 EXTINGUISH. THE FIRE AND EXPLOSION KILLED FOUR PERSONS
 AND INJURED TWO OTHERS. THE ADJACENT BARGE B-928 WAS
 DAMAGED SLIGHTLY.

RECNO
M-78-004
FILE TYPE
RECOMMENDATION
DATE
78 MAR 04
MODE
MARINE
PRIORITY
CLASS II
DUE DATE
78 JUN 02
STATUS
OPEN - ACCEPTABLE ACTION
FOLLOW DATE
78 OCT 04
BUREAU
DIVISION
MONITOR DATE

RECSUB

PROMULGATE REGULATIONS TO ESTABLISH SPECIFIC PROCEDURES
FOR THE ISSUING, TRANSMITTING, AND POSTING MARINE
CREWLIST CERTIFICATES.

RESPONSE

USCG LTR1 NARA STANDARD 304 CONTAINS THE PROCEDURES FOR
ISSUING, TRANSMITTING AND POSTING MARINE CREWLIST
CERTIFICATES. THIS STANDARD IS PRESENTLY BELIEVED TO
BE THE MOST GUARD REPRESENTATION OF THE COMPTON
MODIFIED STANDARD WILL CONTAIN SPECIFIC PROCEDURES
DELIVERING CERTIFICATES TO BE COMPLETED AND ISSUED
THE MARINE CREWLIST PRIOR TO ANY HOT WORK CERTIFICATE TO
BE PRESENTED TO OWNER OR REPRESENTATIVE WITH
SIGNATURE FOR RECEIPT. IT IS THE RESPONSIBILITY OF THE
OWNER, REPAIRER OR REPRESENTATIVE TO POST THE
CERTIFICATE. MARINE CREWLISTS MUST SIGN A MEMORANDUM OF
AGREEMENT AT TIME OF ITS CERTIFICATION THAT HE WILL
PERFORM IN ACCORDANCE WITH NARA-306. USCG IS REVIEWING
ALL REGULATIONS CONCERNING THIS SUBJECT AND WILL ISSUE
AN NARA THAT WILL REQUIRE SPECIFIC PROCEDURES FOR
ISSUING, TRANSMITTING, AND POSTING CERTIFICATES.

RECNO
M-78-005
FILE TYPE
RECOMMENDATION
DATE
78 MAR 04
MODE
MARINE
PRIORITY
CLASS II
DUE DATE
78 JUN 02
STATUS
OPEN - ACCEPTABLE ACTION
FOLLOW DATE
78 OCT 04
BUREAU
DIVISION
MONITOR DATE

RECSUB

PROMULGATE REGULATIONS TO ESTABLISH SPECIFIC CRITERIA
WHICH MUST BE MET BEFORE PERSONNEL ENTER AND REAR
VESSELS.

RESPONSE

USCG LTR1 AN NARA ENTRY INTO CARGO TANKS, COOPERATIONS,
AND SUPERVISION WAS RECD FROM USCGT ISSUED. A
COMPLETE VESSEL RECD OF
REGULATIONS
REGARDING VESSEL RECD AND TANK ENTRY
SCHEDULED FOR COMPLETION IN SEPTEMBER, 1978. USCGT
TO THIS RECD, REGULATORY ACTION WILL BE INITIATED.

RECNO M-78-006
 FILE TYPE RECOMMENDATION
 DATE 78 MAR 04
 MODE MARINE
 PRIORITY CLASS II
 DUE DATE 78 JUN 02
 STATUS OPEN - ACCEPTABLE ACTION
 FOLLOW DATE 78 OCT 04
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

ESTABLISH CRITERIA FOR THE QUALIFICATION OF INDIVIDUALS
 DESIGNATED OR UTILIZED AS A FIRE MATCH ON VESSELS BEING
 REPAIRED.

RESPONSE

USCG LTR1 THE COAST GUARD IN CONSULTATION WITH OMSA
 WILL DETERMINE STANDARDS THAT SHOULD BE ESTABLISHED FOR
 FIRE MATCH PERSONNEL.

RECNO M-78-008
 FILE TYPE RECOMMENDATION
 DATE 78 MAR 04
 MODE MARINE
 PRIORITY CLASS II
 DUE DATE 78 JUN 02
 STATUS OPEN - UNACCEPTABLE ACTION
 FOLLOW DATE 78 OCT 04
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

INITIATE CONTINGENCY PLANS FOR RESPONDING TO MAJOR
 MARINE CASUALTIES IN THE GREENVILLE, MISSISSIPPI, AREA.
 SUCH PLANS SHOULD REQUIRE THAT EMERGENCY COMMUNICATIONS
 ARE ESTABLISHED, THAT APPROPRIATE TRAINING BE PROVIDED,
 AND THAT FIREFIGHTING RESOURCES BE COORDINATED.

RESPONSE

USCG LTR1 USCG CAPTAINS OF THE PORT HAVE SYSTEMATIC
 CONTINGENCY PLANS WHICH INCLUDE IDENTIFICATION OF LOCAL
 POINTS OF CONTACT FOR RESCUE AGENTS. THE USCG LACKS
 AUTHORITY TO REQUEST LOCAL GOVERNMENTS TO ESTABLISH
 AGENCY COMMUNICATIONS OR TRAINING PROGRAMS OR TO
 COORDINATE RESCUE COOPERATION IS ENCOURAGED BUT IS
 DEPENDENT UPON VOLUNTARY IMPLEMENTATION.

ABSTRACT

600-8700

ON NOVEMBER 13, 1975, THE TANK WAGES 0-9944 CAUGHT FIRE
IN A COVE OF THE LAKE. TANKS 0-9944, 0-9945, 0-9946, 0-9947,
0-9948, 0-9949, 0-9950, 0-9951, 0-9952, 0-9953, 0-9954, 0-9955,
0-9956, 0-9957, 0-9958, 0-9959, 0-9960, 0-9961, 0-9962, 0-9963,
0-9964, 0-9965, 0-9966, 0-9967, 0-9968, 0-9969, 0-9970, 0-9971,
0-9972, 0-9973, 0-9974, 0-9975, 0-9976, 0-9977, 0-9978, 0-9979,
0-9980, 0-9981, 0-9982, 0-9983, 0-9984, 0-9985, 0-9986, 0-9987,
0-9988, 0-9989, 0-9990, 0-9991, 0-9992, 0-9993, 0-9994, 0-9995,
0-9996, 0-9997, 0-9998, 0-9999, 1-0000, 1-0001, 1-0002, 1-0003,
1-0004, 1-0005, 1-0006, 1-0007, 1-0008, 1-0009, 1-0010, 1-0011,
1-0012, 1-0013, 1-0014, 1-0015, 1-0016, 1-0017, 1-0018, 1-0019,
1-0020, 1-0021, 1-0022, 1-0023, 1-0024, 1-0025, 1-0026, 1-0027,
1-0028, 1-0029, 1-0030, 1-0031, 1-0032, 1-0033, 1-0034, 1-0035,
1-0036, 1-0037, 1-0038, 1-0039, 1-0040, 1-0041, 1-0042, 1-0043,
1-0044, 1-0045, 1-0046, 1-0047, 1-0048, 1-0049, 1-0050, 1-0051,
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1-0100, 1-0101, 1-0102, 1-0103, 1-0104, 1-0105, 1-0106, 1-0107,
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1-0124, 1-0125, 1-0126, 1-0127, 1-0128, 1-0129, 1-0130, 1-0131,
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1-0172, 1-0173, 1-0174, 1-0175, 1-0176, 1-0177, 1-0178, 1-0179,
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1-0420, 1-0421, 1-0422, 1-0423, 1-0424, 1-0425, 1-0426, 1-0427,
1-0428, 1-0429, 1-0430, 1-0431, 1-0432, 1-0433, 1-0434, 1-0435,
1-0436, 1-0437, 1-0438, 1-0439, 1-0440, 1-0441, 1-044

RECNO M78-009
 FILE TYPE RECOMMENDATION
 IDATE 78 MAR 04
 CODE MARINE
 PRIORITY CLASS II
 DUE DATE 78 JUN 02
 NSTATUS OPEN - AWAIT REPLY
 FOLLOW DATE
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

REVISE NFPA STANDARD NO. 306, "CONTROL OF GAS HAZARDS ON VESSELS TO BE REPAIRED," TO INCLUDE (1) SPECIFIC QUANTITATIVE PARAMETERS WITH REGARD TO FLAMMABILITY HAZARDS WHICH MUST BE MET BEFORE PERSONNEL ENTER AND REPAIR VESSELS; (2) RECOMMENDED TESTING TECHNIQUES TO BE USED WHEN INSPECTING VESSELS TO BE REPAIRED; AND (3) AN APPENDIX CONTAINING ALL FEDERAL REGULATIONS THAT PERTAIN TO THE DUTIES AND RESPONSIBILITIES OF MARINE CHEMISTS.

RESPONSE

.....

LOG NUMBER
SOURCE NUMBER
REPORT NO
ACTION NO
DATE
ALDO
ASTATE

MOORE
ACCIDENT
KAY-78-4
236
PILGRIM CO
PHILADELPHIA
PA

ABSTRACT

MECHU

ON APRIL 9, 1978, THE TANKER AT ELIS (GREEN) WAS DISCHARGING CRUDE OIL. EXPLOSION, KILLED
ATLANTIC COAST GUARD VESSEL, PHILADELPHIA, PENNSYLVANIA. THE
DELAWARE RIVER. PHILADELPHIA, PENNSYLVANIA. THE
WAS DESTROYED. THE CRUISE AND OTHER VISITORS
KILLED FOUR CRUISE AND ONE VISITOR. ARE VISITORS
PREVIOUS DEAD. THE TANKER S/S BELIEVER (LIBERTY) AT
THE NEXT REPORT AS SLIGHTLY DAMAGED, AND SUBORDINATE
WAS HERE FOLLOWED WITH OIL CRUISE, AND THE ACCIDENT
TANKER WAS ESTIMATED TO BE 2.5 MILLION THE SUNKEN HULK
DE THE ELIS OBTAINED USE OF THE BERTH FOR 19 DAYS.

RECNO N78-035
 FILE TYPE RECOMMENDATION
 IDATE 78 JUN 05
 MODE MARINE
 PRIORITY CLASS II
 DUE DATE 78 SEP 03
 STATUS OPEN - UNACCEPTABLE ACTION
 FOLLOW-UP DATE 79 JAN 23
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

IMPLEMENT COMMUNICATIONS PRACTICES TO INSURE THAT
 PILOTS, SHIP OPERATING AGENTS, TERMINAL OPERATORS, AND
 PORT FIREFIGHTING AUTHORITIES ARE INFORMED OF
 POTENTIALLY HAZARDOUS SHIP MOVEMENTS.

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RESPONSE

USCG LTR THE USCG IS MODIFYING REGULATIONS TO OBTAIN
 MORE RELEVANT INFORMATION ON VESSEL MOVEMENTS,
 ESPECIALLY THOSE CARRYING HAZARDOUS CARGOES AND THOSE
 EXPERIENCING HAZARDOUS CONDITIONS. ON JUNE 15, 1978, AN
 NRM WAS PUBLISHED CONCERNING NOTIFICATION OF ARRIVAL,
 DEPARTURE, HAZARDOUS CONDITIONS AND CERTAIN DANGEROUS
 CARGOES. COMMENTS ON THIS AND AN RPM ON TANK VESSEL
 OPERATIONS WILL BE PUBLISHED LATER. REGULATIONS
 WILL BE PASSED ON BY THE USCG TO OTHERS IN PORT AREAS
 SHOULD BE PASSED ON BY THE USCG TO OTHERS IN PORT AREAS
 SHOULD BE MADE BY EACH COPT.

RECNO N78-036
 FILE TYPE RECOMMENDATION
 IDATE 78 JUN 05
 MODE MARINE
 PRIORITY CLASS II
 DUE DATE 78 SEP 03
 STATUS OPEN - ACCEPTABLE ACTION
 FOLLOW-UP DATE 79 JAN 23
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

IMPROVE THE PROMPTNESS AND EFFECTIVENESS OF BOARDING
 PROGRAMS AND SPECIAL INVESTIGATIVE PROCEDURES ON TANK
 VESSELS, AND REVIEW THE ADEQUACY OF CHECKLISTS TO AID IN
 THE DETECTION OF POTENTIALLY HAZARDOUS SHIPBOARD
 CONDITIONS.

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RESPONSE

USCG LTR USCG BOARDING PROMPTNESS AND EFFECTIVENESS
 WILL BE ENHANCED BY THE NOTIFICATION PROPOSALS DISCUSSED
 IN MAY 78. IN APRIL, 1978, BOARDING PROCEDURES WERE
 STRENGTHENED THROUGH A POLICY DIRECTIVE TO FIELD
 COMMANDS. THIS POLICY DIRECTIVE DENIAL OF ENTRY,
 ESTABLISHMENT OF OPERATING REQUIREMENTS, OR VESSEL
 DETENTION WHEN REPAIRS ARE NOT MADE AND THE VESSEL
 CONSTITUTES A HAZARD. A STANDARD COMPREHENSIVE CHECKLIST
 FORM IS BEING DEVELOPED FROM LOCAL AND USCG WIDE
 EXISTING LISTS AND SUPPLEMENTS.

LOG NUMBER
 REPORT NO
 REPORT NO
 NOTATION NO
 ADATE
 ALOC
 ASTATE

#0075
 ACCIDENT
 SAR#78-6
 2416
 76 DEC 17
 LOS ANGELES HARBOR
 CA

RECNO
 ABSTRACT

M78-056 UN DECEMBER 17, 1976, THE TANKSHIP SS SARDINENA, WHILE
 PUMPING SEAWATER, COLLIDED WITH TWO CRUISING YACHTS, WHILE
 UNION OIL TANKER, SARDINENA, LOS ANGELES HARBOR, CALIFORNIA,
 CALIFORNIA, EXPLODED, SINKING, LOS ANGELES HARBOR, CALIFORNIA,
 DESTROYED, EIGHT CRUISE SHIPS WERE KILLED, A SECURITY
 GUARD WAS LISTED AS MISSING AND PRESUMED DEAD. THE TOTAL
 LOSSES INCLUDED DAMAGE TO ABOUT 200 OTHER VESSELS,
 MOSTLY PLEASURE CRAFT, AND DAMAGE TO OTHER VESSELS,
 COMMERCIAL STRUCTURES ASHORE, SOME OF WHICH WERE
 MORE THAN 3 MILES FROM BERTH 46, BERTH 46 COULD NOT BE USED
 FOR MORE THAN 16 MONTHS.

RECNO M-78-056
 FILE TYPE RECOMMENDATION
 IDATE 78 AUG 04
 MODE MARINE
 PRIORITY CLASS II
 DUE DATE 78 NOV 02
 STATUS OPEN - UNACCEPTABLE ACTION
 FOLLOW DATE 79 MAR 23
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

ESTABLISH MINIMUM CRITERIA FOR VAPOR-EMITTING OPERATIONS
 ON TANK VESSELS CARRYING FLAMMABLE CARGOES IN U.S. PORTS
 TO INCLUDE MONITORING OF VAPOR CONCENTRATIONS ON DECK
 AND ENCLOSED SPACES LOCATED ABOVE THE CARGO TANKS,
 AND STOPPING VAPOR-EMITTING OPERATIONS WHEN VAPOR
 CONCENTRATIONS EXCEED SAFE LIMITS AND UNDER CERTAIN LOW
 WIND VELOCITY CONDITIONS.

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RESPONSE

USCG LTR PROTECTION THROUGH OPERATING RESTRICTIONS IS
 CONSIDERED AS SECONDARY TO PROTECTION BY DESIGN. THE
 MONITORING AND ENFORCEMENT ASPECTS OF THE RECOMMENDATION
 ARE CONSIDERED IMPRACTICAL. THE COAST GUARD HAS A PROJECT
 UNDERWAY TO INVESTIGATE VAPOR CONCENTRATIONS IN RELATION
 TO TIME, POSITION, WIND, HUMIDITY, AND VESSEL CONFIGURATION.
 THIS STUDY TO BE COMPLETED BY 1981. THE RESULTS
 OF THE INTERNATIONAL TANKER SAFETY AND POLLUTION
 PREVENTION CONFERENCE AND THE PORT TANKER AND SAFETY ACT
 OF 1978 ARE BEING IMPLEMENTED THROUGH REGULATION. THESE
 REGULATORY AND RESEARCH EFFORTS WILL SIGNIFICANTLY REDUCE
 THE HAZARDS ASSOCIATED WITH FLAMMABLE MIXTURES AND VAPORS.

RECNO M-78-057
 FILE TYPE RECOMMENDATION
 IDATE 78 AUG 04
 MODE MARINE
 PRIORITY CLASS II
 DUE DATE 78 NOV 02
 STATUS OPEN - UNACCEPTABLE ACTION
 FOLLOW DATE 79 MAR 23
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

REQUIRE OPERATORS OF TANK VESSELS CARRYING FLAMMABLE
 CARGOES IN U.S. PORTS TO DEVELOP OUTLINES FOR THE
 RANGE OF OPERATING CONDITIONS TO MINIMIZE IN-PORT
 BALLASTING OF CARGO TANKS, AND ESTABLISH OTHER
 BALLASTING REQUIREMENTS WHICH MAY BE IMPOSED WHEN HIGH
 VELOCITY WETING IS INSTALLED.

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RESPONSE

USCG LTR THE PROPOSED REGULATIONS FOR TANKER SAFETY
 AND POLLUTION PREVENTION WILL ACCOMPLISH THE INTENT OF
 THIS RECOMMENDATION. NEW VESSELS WILL HAVE SEGREGATED
 BALLAST TANKS HEAVY EXISTING VESSELS WILL HAVE
 SEGREGATED BALLAST, CLEAN BALLAST TANKS, OR CRUDE OIL
 WASHING. EXISTING VESSELS OF 20,000 GT AND OVER WILL BE
 REQUIRED TO HAVE INERT GAS SYSTEMS. THESE REQUIREMENTS
 WILL REDUCE THE PROBABILITY OF DISCHARGING AN EXPLOSIVE
 MIXTURE DURING BALLASTING.
 REDUCTION IN BALLASTING.

RECNO
FILE TYPE
RECOMMENDATION
IOATE
MODE
PRIORITY
DUE DATE
STATUS
FOLLOW DATE
BUREAU
DIVISION
MONITOR DATE
RECSUB

M-78-038
RECOMMENDATION
78 AUG 04
MARINE
CLASS II
78 NOV 02
OPEN - UNACCEPTABLE ACTION
79 MAR 23

ESTABLISH REQUIREMENTS FOR CARGO TANK VENT SYSTEMS ON TANK VESSELS CARRYING FLAMMABLE CARGOES IN U.S. PORTS, INCLUDING INDEPENDENT VENTING OF EACH CARGO TANK, LOCATION, SIZE, AND HEIGHT OF VENT OUTLETS, WITH CONSIDERATION OF SHIP STRUCTURES, MEANS OF PROTECTING VENT SYSTEMS FROM FLAME ENTRY, INCLUDING PROPER FIT AND ATTACHMENT OF FLAME-QUENCHING DEVICES, AND VENT SYSTEM CONFIGURATIONS THAT PROVIDE EASE OF INSPECTION AND MAINTENANCE.

RECNO
FILE TYPE
RECOMMENDATION
IOATE
MODE
PRIORITY
DUE DATE
STATUS
FOLLOW DATE
BUREAU
DIVISION
MONITOR DATE
RECSUB

M-78-039
RECOMMENDATION
78 AUG 04
MARINE
CLASS II
78 NOV 02
OPEN - ACCEPTABLE ACTION
79 MAR 23

REQUIRE OPERATORS OF TANKSHIPS CARRYING FLAMMABLE CARGOES IN U.S. PORTS TO DEVELOP TRAINING PLANS FOR THE INSTRUCTION OF PERSONS RESPONSIBLE FOR CARGO HANDLING AND VAPOR-EMITTING OPERATIONS, TO MAKE THESE TRAINING PLANS AVAILABLE FOR COAST GUARD REVIEW, AND TO TRAIN RESPONSIBLE PERSONS IN ACCORDANCE WITH THE PLANS, AND APPROPRIATELY DOCUMENT THE TRAINING.

RESPONSE

USCG LTR1 USCG IS WORKING ON A STUDY TO DEVELOP TECHNICAL INFORMATION RELATED TO VENT HEIGHT AND ARRANGEMENTS, TO BE COMPLETED IN 1981. USCG IS DEVELOPING REGULATIONS FOR INERT GAS SYSTEMS AND SEGREGATED BALLAST TANKS.

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RESPONSE

USCG LTR1 THE USCG PUBLISHED AN NPRM ON TANKERMAN QUALIFICATIONS IN 1977. THIS IS BEING WITHDRAWN DUE TO COMMENTS ON NPRM, A GAO STUDY, NEW IFCO STANDARDS, AND THE COAST AND TANKER SAFETY ACT OF 1978. THE NPRM WILL BE REISSUED IN 1979. THERE WILL BE A REQUIREMENT FOR TANKERMAN TO COMPLETE A USCG APPROVED PRODUCT SCHOOL.

RECNO
FILE TYPE
IOATE
MODE
PRIORITY
DUE DATE
NSTATUS
FOLLOW DATE
BUREAU
DIVISION
MONITOR DATE

M-78-060
RECOMMENDATION
78 AUG 04
MARINE
CLASS II
78 NOV 02
OPEN - UNACCEPTABLE ACTION
79 MAR 23

RECSUB

REQUIRE THE INSTALLATION AND USE OF CLOSED CARGO LEVEL
GAUGING SYSTEMS ON TANK VESSELS CARRYING FLAMMABLE
CARGUES IN U.S. PORTS.

RESPONSE

USCG LTR1 THE PROPOSED REGULATIONS FOR TANKER SAFETY AND
POLLUTION PREVENTION WILL REQUIRE EXISTING VESSELS OF
20,000 DWT AND OVER TO HAVE INERT GAS SYSTEMS. THERE
INERT GAS SYSTEMS WILL REQUIRE CLOSED GAUGING
ARRANGEMENTS.

RECNO
FILE TYPE
IOATE
MODE
PRIORITY
DUE DATE
NSTATUS
FOLLOW DATE
BUREAU
DIVISION
MONITOR DATE

M-78-061
RECOMMENDATION
78 AUG 04
MARINE
CLASS II
78 NOV 02
OPEN - ACCEPTABLE ACTION
79 MAR 23

RECSUB

TEST FLAME-QUENCHING DEVICES UNDER CONDITIONS OF VAPOR
CONCENTRATIONS, CONSTITUENCIES, AND SIZE OF FLAMMABLE
REGIONS THAT MIGHT OCCUR ON THE MAIN DECK OF A TANK
VESSEL, TO DETERMINE THE ADEQUACY OF SUCH DEVICES.

RESPONSE

USCG LTR1 USCG LISTS TWO STUDIES TO EXAMINE THE ADEQUACY
OF COMMERCIALLY AVAILABLE FLAME QUENCHING DEVICES.
EXPERIMENTAL STUDY OF FLAME CONTROL DEVICES FOR CARGO
VENTILATING SYSTEMS, AND FLAME SCREEN TESTING. THESE STUDIES
WILL BE USED TO RECOMMEND POSSIBLE REGULATORY CHANGES FOR
EXISTING FLAME ARRESTING DEVICES.

MODE	RECOMMENDATION NUMBER	ADDRESSEE RESPONSE DATE	ADDRESSEE
RAILROAD	R-72004	73 JUN 16	DOT
	R-73003	73 JUL 17	FRA
	R-74002	75 FEB 14	FRA
	R-75006	76 MAR 12	DOT
	R-76004	75 JUL 02	FRA
	R-77001	76 JUN 04	DDO
	R-78001	75 MAY 21	FRA
	R-79009	75 SEP 26	FRA
	R-79002	75 OCT 08	DOT
	R-79003	75 NOV 14	FRA
	R-79022	77 NOV 02	FRA
	R-79027	77 AUG 22	FRA
	R-79029	77 AUG 22	FRA
	R-79030	77 AUG 22	FRA
	R-79032	79 JAN 16	DOT
	R-79033	79 JAN 16	DOT
	R-79036	79 JAN 19	FRA
	R-79046	79 JAN 19	FRA
	R-79047	79 JAN 19	FRA
	R-79059	78 DEC 22	DOT
	R-79068		LOUISVILLE AND NASHVILLE RAILROAD COMPANY
	R-79009		LOUISVILLE AND NASHVILLE RAILROAD COMPANY
	R-79010		FRA
	R-79016		FRA
	R-79022		FRA
	R-79024		FRA
	R-79026		FRA

ABSTRACT

7-75041 THE MISSOURI PACIFIC RAILROAD FREIGHT TRAIN 98 WAS
7-75042 TRAVELING NORTH ON THE TRACK WHICH BELONGS TO THE ATCHAFALAY
7-75043 RAILROAD, WHEN IT COLLIDED WITH THE TEXAS PACIFIC RAILROAD
7-75044 LOCOMOTIVE AND SANK INTO THE RAIL BEDS NEAR THE TOWNSHIP OF
7-75045 COPEKA AND SANTA FE RAILROADS, WHEN 20 OF ITS CARS DERAILED IN
HOUSTON, TEXAS, ON OCTOBER 19, 1971, AT 11:48 P.M. THERE
WERE FOUR DERAILED LOCOMOTIVES, TWO CARS CONTAINING
THE TRAIN, DERAILED CARS INCLUDED SIX TANK CARS CONTAINING
VINYL CHLORIDE MONOMER AND TWO CARS CONTAINING OTHER FLAMMABLE
HAZARDOUS MATERIALS. TWO TANK CARS WERE PUNCTURED IN THE
DERAILMENT, THE VINYL CHLORIDE MONOMER ESCAPED AND IGNITED.
THE HOUSTON FIRE DEPARTMENT ATTEMPTED TO CONTROL THE FIRE,
APPROXIMATELY 45 MINUTES AFTER THE INITIAL DERAILMENT, ONE
TANK CAR BURST OPEN VIOLENTLY AND ANOTHER TANK CAR "ROCKETED"
SEVERAL FEET INTO THE AIR, SETTING OFF ITS INITIAL RESTING PLACE. THIS
SECOND CAR BURST OPEN AGAIN, THIS TIME SETTING OFF ANOTHER
SEVERAL FEET INTO THE AIR. THE DEATH OF ONE PERSON, FIFTY
SEVEN OTHERS WERE INJURED, AND THE TRAIN WAS COMPLETELY
DAMAGED. MOST OF THE INJURED WERE FEMININE, AND ALL WERE
DETERMINED TO BE THE PROBABLE CAUSE OF THIS ACCIDENT. A GRAND
JURY HAS BEEN CALLED TO CONSIDER THE CHARGES OF MURDER AND
UNLAWFUL EMERGENCY BRAKE APPLICATION WHICH INDICED A
FEDERAL POLICE AGENT EXCEEDED THE HOLDING CAPACITY OF THE TRACK
FASSTENERS. THE SEVERITY OF THE ACCIDENT HAS INCREASED BY
THE ABRUPT RUPTURE OF THE TANK CAR AND THE LACK OF ADEQUATE
TRAINING, INFORMATION, AND DOCUMENTED PROCEDURES FOR
IDENTIFYING AND ASSESSING THE THREATS TO PUBLIC SAFETY.

RECNO	473044
FILE TYPE	RECOMMENDATION
IOATE	72 DEC 13
MODE	MAIL-PCAO
PRIORITY	
DUE DATE	73 MAR 13
STATUS	OPEN - ACCEPTABLE ACTION
FOLLOW DATE	
BUREAU	
DIVISION	
MONITOR DATE	

RECSUB

THE SECRETARY OF TRANSPORTATION INITIATE THE DEVELOPMENT OF A LOGICAL HAZARDOUS MATERIALS CLASSIFICATION THEORY WHICH WILL ESTABLISH A RATIONAL BASIS FOR CLASSIFYING HAZARDOUS MATERIALS HANDLED UNDER NORMAL TRANSPORTATION CONDITIONS AND IN TRANSPORTATION EMERGENCIES AS WELL. THE PROGRAM WILL ENLARGE ITS GATE CROSSING SAFETY CRITERIA TO INCLUDE USE OF FLAMMABLE OILS AND GAS, AND OTHER HAZARDOUS

- THE DEPARTMENT OF TRANSPORTATION INITIATE A REQUEST FOR PROPOSAL (RFP).
- THE REQUEST FOR PROPOSAL (RFP) REQUESTS RECOMMENDATIONS IN YOUR SPECIFIC AREA.
- IN DANGEROUS GOODS TRANSPORTATION, THE RFP REQUESTS RECOMMENDATIONS FOR ANALYTICAL METHODS.
- IN RESPONSE TO THAT RFP ARE BEING MANAGED BY THE OFFICE OF HAZARDOUS MATERIALS.

RESPONSE

[illegible]

LOG NUMBER
SOURCE
REPORT NO
NOTATION NO
ADATE
ALOC
ASTATE

R=0037
ACCIDENT
RARE=73=1
1001A
72 JAN 22
EAST ST.
IL

ABSTRACT

R-73-001
R-73-002
R-73-003
R-73-004

AT ABOUT 5:00 P.M. ON JANUARY 22, 1972, AN OVERSPEED TANK CAR LOADED WITH LIQUID PETROLEUM GAS COLLIDED WITH A STANDING HOPPER CAR IN THE ALTON & SOUTHERN RAILROAD COMPANY'S GUYVER YARD IN EAST ST. LOUIS, ILL. IN THE OVERSPEED IMPACT, AN OVERSPEED COUPLER ON THE EMPTY FREIGHT CAR PULVED THE TANK HEAD. THE PRESSURIZED PROPANE GAS IN THE TANK CAR LEAKED OUT THE GROUND AND FLOWED DOWN THE TANK CAR TRACK. WHEN THE TANK CAR COLLIDED WITH THE STANDING HOPPER CAR, THE TANK CAR WAS EXPOSED TO THE NATURAL TRANSPORTATION SAFETY BOARD DETERMINE THAT THE POSSIBLE CAUSE OF THE OVERSPEED IMPACT WAS THE FAILURE OF THE RETARDING SYSTEM IN THE TANK CAR CLASSIFICATION YARD TO DECELERATE EFFECTIVELY HEAVY CARS WITH OIL OR GREASE ON THEIR WHEELS. FIRST, THE ABSENCE OF A BACKER SYSTEM TO HALT CARS PASSING THROUGH RETARDERS AT OVERSPEED, AND THE ROUTINE ACCEPTANCE OF THE CATEGORY A AND B CARS INTO THE CLASSIFICATION YARD. SECOND, THE TANK CAR BEING OVERSPEED WAS A GOOD HEAVY CAR. THIRD, THE TANK CAR BEING OVERSPEED COULDED IN THE HOPPER CAR LACK OF OIL OR GREASE THAT DEFLECTED THE PENDING IMPACT AND ADEQUATE SEPARATION WAS A CONTRIBUTING FACTOR.

RECNO 8-73-003
 FILE TYPE RECOMMENDATION
 IDATE 73 JAN 31
 MODE RAILROAD
 PRIORITY
 DUE DATE 73 APR 31
 NSTATUS OPEN - ACCEPTABLE ACTION
 FOLLOW DATE 78 JAN 19
 BUREAU
 DIVISION
 MONITOR DATE

RECSUS

THE FEDERAL RAILROAD ADMINISTRATION DEVELOP REQUIREMENTS FOR T COLLECTION, DOCUMENTATION, AND TECHNICAL ANALYSIS OF THE PRINCIPAL HAZARDS IN WHICH THE HAZARDOUS MATERIALS PRESENT PRODUCE INJURIES AND DAMAGES IN RAILROAD ACCIDENTS, SUCH DOCUMENTATION SHOULD IDENTIFY THE RANGE OF DISTANCES AT WHICH INJURIES OR DAMAGES OCCURRED.

RESPONSE

LETTER FROM THE ADMINISTRATOR OF FRA STATING THEIR COMMENT ON RECOMMENDATION, "THE DESTRUCTIVE FORCES PRESENT IN HAZARDOUS MATERIALS SHIPMENTS ARE NOT UNIQUE TO THE RAIL TRANSPORT MODE BUT ARE SIMILAR WHEN SHIPPED BY RAIL, HIGHWAY, MARINE OR AIR. THE BASIC DIFFERENCE IN ACCIDENT BEHAVIOR IS ASSOCIATED WITH THE METHOD AND TYPE OF CONFINEMENT AND THE AMOUNT OF THE MATERIAL INVOLVED IN THE ACCIDENT. POPULATION EXPOSURE AND ACCESS TO THE SCENE ARE CONTRIBUTING FACTORS TO THE EXTENT OF INJURIES AND DAMAGES. ON BEHALF OF THE HAZARDOUS MATERIALS REGULATIONS BOARD, OF WHICH THE FRA IS ONE OF THE FOUR VOTING MEMBERS, THE OFFICE OF HAZARDOUS MATERIALS IS UNDERTAKING SEVERAL RESEARCH PROJECTS TO CORRELATE AND REEVALUATE THE TRANSPORTATION HAZARD OF OCCURRENCE OF A TECHNICAL ANALYSIS OF THE COLLECTION, DOCUMENTATION, AND TECHNICAL ANALYSIS OF HAZARDOUS MATERIALS SHIPMENTS PRODUCE INJURIES AND DAMAGES IN TRANSPORTATION ACCIDENTS. SUCH DOCUMENTATION WILL INCLUDE THE RANGE OF DISTANCES AT WHICH INJURIES OR DAMAGES OCCURRED AS A RESULT OF THIS WORK. THE DEFINITION OF REACTIVE MATERIALS HAS BEEN REVISED. THE DEFINITIONS WILL BE CHANGED TO MORE PROPERLY REFLECT HAZARDOUS MATERIALS. METHOD OF ATTAINING SAFETY IN THE TRANSPORT OF HAZARDOUS MATERIALS IS CONTINUED RATHER THAN CONSIDERATION OF THE REACTIVE POTENTIAL OF THE COMMODITIES SHOULD THEY BE SPILLED IN A TRANSPORT ACCIDENT. THIS PHILOSOPHY IS FOLLOWED DUE TO THE FACT THAT HAZARDOUS MATERIALS BY DEFINITION POSSESS THE ABILITY TO INFLECT CONSIDERABLE INJURY AND DAMAGE IF ALLOWED TO ESCAPE FROM THEIR CONTAINMENT DURING TRANSPORTATION. BY NECESSITY, MUCH TRANSCRIPTION IS IN DENSELY POPULATED AREAS. NOT STANDING THIS FACT THE OVERALL RECORD IN THE MULTIMODAL TRANSPORT OF HAZARDOUS MATERIALS IN THE U.S. SHOWS AN EXTREMELY LOW DEATH, INJURY, AND DAMAGE RATE. CONTINUING STUDIES ARE BEING MADE ON BEHALF OF THE HAZARDOUS MATERIALS REGULATIONS BOARD TO ASSESS THE POTENTIAL CONSEQUENCES OF ITS RULE MAKING ACTIONS. JANUARY 2, 1976 LTR FRA TO CHAIRMAN. THE FIVE RESEARCH PROJECTS RELATED TO RECOMMENDATION ARE FRACORD 75-30, 75-32, 75-31, 75-36, 75-37. THE ANALYTICAL DATA PRESENTLY BEING EVALUATED."

RECNO
FILE TYPE
IDATE
MODE
PRIORITY
DUE DATE
STATUS
FOLLOW UP DATE
BUREAU
DIVISION
MONTH/DATE

R-76-033
SECURIZATION
76 OCT 17
RAILROAD

75 JAN 17
OPEN - ACCEPTABLE ACTION

RECSUB

THE FRA EMPLOY THE INFORMATION DEVELOPED BY THEIR TANK CAR STU AND BY THOSE OF THE RPI-RAILROAD TANK CAR SAFETY RESEARCH AND TEST PROJECT AND EXPEDITE THE PROMULGATION OF REGULATIONS THAT WILL ELIMINATE OR REDUCE TO MANAGEABLE DIMENSIONS THE SEVERITY OF THE POSSIBLE LOSSES TO COMMUNITIES WHICH DEVELOP WHEN TANK CARS OF THE GENERAL TYPE OF 112A AND 114A LOADED WITH HAZARDOUS MATERIALS ARE EXPOSED TO A RAILROAD ACCIDENT OR A FIRE.

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RESPONSE

FRA HAS ISSUED MM-109 REQUIRING HEAD SHEETS ON ALL 112A AND 1 TANK CARS AND EMERGENCY ORDER NO. 5 REQUIRING THAT EACH CAR CONTAINING LIQUEFIED FLAMMABLE GASES NOT BE OUT OF OPERATION FOR STRUCK BY ANY OTHER CAR UNDER ITS OWN POWER. THESE ARE INTERIM REGULATIONS. FRA IS AMENDING FINAL INFORMATION FROM ITS RESEARCH PROJECTS AND THOSE OF APRAIR. RESPONSE DATED 9/15/77 FINAL RULE AMENDING RECP-179 SPECIFICATIONS FOR TANK CARS. EFF. 10/1/77 112A AND 114A CARS CARRYING FLAMMABLE GASES REQUIRING TO HAVE THERMAL AND TANK HEAD PROTECTION. RETROFIT PROGRAM TO BE COMPLETED BY 12/31/82. TANK HEAD PROTECTION REQUIRED FOR AMONZA TRANSPORT BY 12/31/81. ALL 112A AND 114A TANK CARS MUST HAVE SPECIAL COUPLERS BY 7/1/79.

LOG NUMBER R-0086
 SOURCE ACCIDENT
 REPORT NO RAR-75-2
 NOTATION NO 114C
 ADATE 73 MAY 24
 ALOC HENSON
 ABSTATE AZ

RECNU ABSTRACT

R75-008 ON MAY 24, 1973, SOUTHERN PACIFIC TRANSPORTATION COMPANY'S
 R75-009 FREIGHT TRAIN NO. 80, 22, WAS APPROACHING HENSON, ARIZONA, WHEN
 R75-010 1 OF 12 HUNTERS BOXCARS IN THE TRAIN'S COUNTRY CATCHT A
 FIRE. THE BOXCARS WERE LOADED WITH SODIUM, MK 22 BORDS, AS
 THE TRAIN STOPPED, THE CARGO EXPLODED, AND THE EXPLSIONS
 CONTINUED FOR SEVERAL HOURS. THE NATIONAL TRANSPORTATION
 SAFETY BOARD DETERMINES THAT THE PROBABLE CAUSE OF THE
 ACCIDENT WAS THE EXPOSURE OF A HEAT SENSITIVE BORDS IN CAR 28
 TO A FIRE INSIDE THE CAR. THE FIRE MOST LIKELY ORIGINATED
 FROM SPARKS ON THE BRAKESHOES WHICH ILLUMINATED THE SOLE
 PLATE IMPREGNATED FLOORBOARDS.

RECNU
H-75-008
FILE TYPE
RECOMMENDATION
10 DATE
75 FEB 26
MODE
RAILROAD

PRIORITY
DUE DATE
75 MAY 26
STATUS
OPEN - ACCEPTABLE ACTION
FOLLOWUP DATE
76 MAY 18

BUREAU
DIVISION
MONITOR DATE

RECSUB

THE SECRETARY OF TRANSPORTATION REASSESS THE REGULATIONS APPLIED TO THE PACKAGING, LOADING, STORING AND TRANSPORTATION OF MILITARY MUNITIONS AND DEVELOP A SAFETY COMPLIANCE PROGRAM TO UNIFY AND COORDINATE FEDERAL ACTIVITIES RELATING TO THE SHIPMENT OF MILITARY MUNITIONS AS NOW AUTHORIZED BY THE TRANSPORTATION SAFETY ACT OF 1974.

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RESPONSE

DIRECTOR OF MTS ADVISED THAT THE HAZARDOUS MATERIALS REGULATIONS CONTINUALLY UNDER A REVIEW AND ARE CHANGED WHEN REGULATORY CHANGEMENT NOT YET ACHIEVED. REQUEST FOR ESTABLISH ADDITIONAL REQUIREMENT FOR BOX CANS WHICH ARE TO TRANSPORT EXPLOSIVES. THE USED FOOD PACKAGING OF EXPLOSIVES WAS DISCUSSED BUT NO ACTION RECOMMENDED. MAY 80, 1974 RESPONSE FROM SECRETARY DOT ADVISING REPLY TO RECEIVING CAREFUL ATTENTION BY THE DEPARTMENT OF TRANSPORTATION ASSISTANT SECRETARY FOR ENVIRONMENT, SAFETY AND CONSUMER AFFAIRS, AS WELL AS OTHER APPROPRIATE DEPARTMENT OFFICIALS.

RECNU
H-75-009
FILE TYPE
RECOMMENDATION
10 DATE
75 FEB 26
MODE
RAILROAD

PRIORITY
DUE DATE
75 MAY 26
STATUS
OPEN - Awaiting REPLY
FOLLOWUP DATE
78 JAN 31

BUREAU
DIVISION
MONITOR DATE

RECSUB

THE FEDERAL RAILROAD ADMINISTRATION IN CONJUNCTION WITH THE SECRETARIS PROGRAM DEVELOP AND REQUIRE THE USE OF A MECHANISM FOR THE TIMELY DETECTION OF FIRE BY CREWS OF TRAINS CARRYING CLASS A EXPLOSIVES.

RESPONSE

LTR. FROM FRAI, TO THE CHAIRMAN IN RESPONSE FRA 18 CURRENTLY PACKAGING PROTOTYPE EQUIPMENT...SUCCESSFUL DEVELOPMENT OF THIS SYSTEM WOULD PERMIT DETECTION OF FIRE RESULTING FROM TRAIN OPERATION.

RECNU
FILE TYPE
IDATE
MODE
PRIORITY
DUE DATE
NSTATUS
FOLLOWUP DATE
BUREAU
DIVISION
MONITOR DATE

R-75-010
RECOMMENDATION
75 FEB 26
RAILROAD
75 MAY 26
OPEN - ACCEPTABLE ACTION
76 JAN 31

REC808

THE SECRETARY OF DEFENSE DESIGN, DEVELOP AND USE SPECIAL RAILCARS FOR THE TRANSPORTATION OF MILITARY MUNITIONS WHICH ARE CONSTRUCTED OF NONCOMBUSTIBLE MATERIALS, OR ARE OTHERWISE RESISTANT TO IGNITION FROM SOURCES EXTERNAL TO THE CAR, AND REDUCE OR ELIMINATE THE USE OF CODES OR OTHER COMBUSTIBLE SHEATHING, BLOCKING AND BRACING INSIDE THE CARS.

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RESPONSE

LTR. FROM DEPUTY ASSISTANT SECRETARY OF DEFENSE STATING DOD INITIATED A REVIEW IN APRIL 1975 WITH OBJECTIVE OF UPGRADING SAFETY FEATURES OF RAILCARS USED FOR TRANSPORTING MUNITIONS. ALSO THEY PROPOSE TO INITIATE A STUDY OF THE BROADER PROBLEM OF LIMITING EFFECT OF EXPLOSIVE INCIDENTS IN RAILCARS. FEBRUARY 14, 1976 RESPONSE FROM ASST. SECY. OF DEFENSE. COMPREHENSIVE STUDY OF SAFE TRANSPORT OF MUNITIONS (STDM) STARTED IN 1ST QUARTER FY78. COMPLETION TARGET DATE OF 27 MONTHS. AREAS OF STUDY INTEREST INCLUDES: 1. LIMITED USE OF SPACER CARS. 2. HEAT SENSORS IN CARS. 3. COLLISION ALARM SYSTEM. 4. USE OF RAILCARS FOR TEST PURPOSES IN ROLLING STOCK. 5. THE PROTECTION SYSTEMS IN CARS. 6. SCENE BUFFERS AROUND OTHER TRAINS. 7. SHIPMENTS IN ALL STEEL CARS ONLY. 8. CONTAINER USE TO CONTROL SHOCK AND VIBRATION. 9.

RECNO 8-75-016
 FILE TYPE RECOMMENDATION
 DATE 75 APR 24
 MODE RAILROAD
 PRIORITY
 DUE DATE 75 JUL 24
 STATUS OPEN - ACCEPTABLE ACTION
 FOLLOW DATE 77 NOV 04
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

IDENTIFY ALL LIQUIDS NOW TRANSPORTED IN TANK CARS WHICH ARE CA OF DETONATIONS DETERMINE WHETHER DETONATION ON OTHER DANGEROUS CHEMICAL REACTIONS CAN BE INITIATED BY CONDITIONS AND CIRCUMSTANCES ENCOUNTERED BY THOSE LIQUIDS IN RAILROAD TRANSPORTATION AND ISSUE REGULATIONS TO CONTROL THE RISKS IDENTIFIED.

RESPONSE

FRA BELIEVES THAT THE POSSIBLE PROBLEM OF LIQUIDS IN TANK DETONATING DURING TRANSPORTATION IS NOT CONFINED TO TANK CARS. FRA IS WORKING ON THE PROBLEM. FRA SHARES THE BOARD'S CONCERN THAT DOT MAY NOT BE AWARE OF ALL HAZARDS ASSOCIATED WITH THE BULK TRANSPORTATION OF LIQUID CHEMICALS. JUNE 10, 1975 FRA ASKS FRA TO INDICATE HOW THE RESULTS WOULD BE APPLIED TO EVALUATING TANKCAR TRANSPORTATION OF CHEMICALS. JULY 11, 1975 FRA RESPONDS THAT IT IS EXPECTED THAT THIS RESEARCH WILL IMPROVE OUR OVERALL KNOWLEDGE AND SERVE AS GENERAL REFERENCE TO FUTURE REGULATORY DEVELOPMENT. DEC 27, 1977 RESPONSE FROM ADMINISTRATION, FRA OFFICE OF HAZARDOUS MATERIALS OPERATIONS RECENTLY COMPLETED A REQUEST FOR A PROPOSAL FOR THE DEVELOPMENT OF A PROTOCOL FOR SYSTEMATIC HAZARDOUS MATERIALS CLASSIFICATION. ONE PROSPECTIVE CONTRACTOR HAS SUBMITTED A PROPOSAL WHICH IS BEING REVIEWED BY THE SOURCE SELECTION COMMITTEE. THE PURPOSE OF THIS PROJECT IS TO IMPLEMENT AN EFFECTIVE HAZARD CLASSIFICATION SYSTEM BASED ON ALL THE RELEVANT FACTORS INFLUENCING THE HAZARDOUSNESS OF MATERIALS TRANSPORTATION. ONE OF THE MAJOR BENEFITS OF THIS SYSTEM WILL BE THE MATERIALS OF THE TYPE REFERRED TO AS CLASSIFICATION OF HAZARDOUS MATERIALS AFTER THE CONDUCT OF RESEARCH. FRA WILL BE SETTER ASABLE TO ESTIMATE THE DATE OF COMPLETION OF THE PROJECT.

LOG NUMBER R00066
SOURCE ACCIDENT
REPORT NO RIN-75-8
NOTATION NO 188175-8
DATE 78 JUL 19
ALOC DECATUR
ASTATE IL

ABSTRACT

RECNO

SIX 41623 AND FOUR OTHER TANK CARS LOADED WITH ISOBUTANE GAS UNCOUPLED AT THE WEST END OF GREATLY EASTERN RAILROAD SWITCHING CARS AND ALLEGED TO BE SET ON FIRE BY A TANK CAR 11. THE CAR IMPACTED AN EMPTY ROLLER COUPLER OVERSIDE THE TANK CAR COUPLER AND PUNCTURED THE TANK COUPLER. ISOBUTANE ESCAPED AND VAPORIZED FOR 8 TO 10 MINUTES BEFORE IT EXPLODED. THE YARD, SURROUNDING RESIDENCES, AND COMMERCIAL FACILITIES WERE DAMAGED EXTENSIVELY BY THE SHOCK WAVES. SEVEN EMPLOYEES DIED FROM BURNS, AND 37 EMPLOYEES WERE INJURED. THREE HUNDRED SIXTY PERSONS OUTSIDE THE RAIL YARD WERE ALSO INJURED AS A RESULT OF THE EXPLOSION. PROPERTY DAMAGE WAS ESTIMATED AT \$18 MILLION. THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE PROBABLE CAUSE OF THE ACCIDENT WAS THE OVERSPEED IMPACT BETWEEN THE HEAVY CUT OF TANK CARS AND THE UNCOUPLED LIGHT BOXCAR, WHICH RESULTED FROM THE RELEASE OF THE TANK CARS AT A HIGH, UNACCEPTABLE SWITCHING SPEED. THE LACK OF A HIGHLY TRAINED ACCEPTABLE SWITCHING SPEED IN DETERMINING THE PROPER SWITCHING SPEED CONTRIBUTED TO THE ACCIDENT. THE CREWMEN'S LACK OF UNDERSTANDING OF THE RISKS INVOLVED IN SWITCHING HAZARDOUS MATERIALS ALSO WAS A CONTRIBUTING FACTOR.

RECNO
FILE TYPE
DATE
MODE
PRIORITY
DUE DATE
STATUS
FOLLOW DATE
BUREAU
DIVISION
MONITOR DATE

R-75-019
RECOMMENDATION
75 APR 10
RAILROAD
75 JUL 10
OPEN - ACCEPTABLE ACTION

REC089
DETERMINE THE CAPABILITIES OF TOP AND BOTTOM SHELF
COUPLERS, H SHIELDS, AND A COMBINATION OF BOTH, AND ISSUE
REGULATIONS TO REQUIRE THAT OUT-112A AND 112A TANK CARS BE
EQUIPPED WITH THE BEST PRACTICAL COMBINATION.

RESPONSE

THE FRA, IN COOPERATION WITH THE NBI AND AAR, IS PRESENTLY CONDUCTING SWITCH YARD IMPACT TESTS AT THE TRANSPORTATION TEST CENTER, PUEBLO, COLORADO. THE OBJECTIVES OF THIS PROGRAM OF HEAD PUNCTURES AND TO DETERMINE THE PROBABLE EFFECTIVENESS OF THE SHELF COUPLER, THE HEAD SHIELD OR BOTH IN CONTRIBUTION TOWARD PREVENTING THE PUNCTURE. REGULATIONS WILL BE CONSIDERED UPON EVALUATION OF THESE TEST RESULTS. MARCH 14, 1977 FRA TO THE CHAIRMAN, "IMPACT TEST RESULTS, COMPLETED NOV. 1976, FOLLOWING EVALUATION OF RESULTS, MATERIALS TRANSPORTATION BUREAU AT FRA'S RECOMMENDATION, PUBLISHED NPM, DOCKET HM-144, NOTICE 76-12, IN FEDERAL REGISTER 11-29-76) THIS PROVIDES THAT PREVIOUSLY BUILT 112 AND 114 TANK CARS BE EQUIPPED WITH EITHER SHELF COUPLERS OR HEAD SHIELDS WITHIN 1 YEAR FOLLOWING EFFECTIVE DATE OF RULE AND (2) THERMAL PROTECTION, TANKS HEAD PUNCTURE RESISTANCE WITH ADEQUATE SAFETY RELIEF VALVE CAPACITY WITHIN 4 YEARS FOLLOWING EFFECTIVE DATE OF RULE." SEPTEMBER 13, 1977, FED. REGISTER VOL. 42 NO. 179 PARTS 15 AND 179 AMENDED TITLE 49CFR, FOLLOWING IMPACT TESTS AT PUEBLO, COLORADO, FRA ISSUED NEW REGULATION, AS FOLLOWS: EXISTING 112 AND 114 TYPE TANK CARS, REGARDLESS OF HAZARDOUS LOADING, ARE TO BE EQUIPPED WITH SHELF-TYPE COUPLERS BY JULY 1, 1979. NEW CARS BUILT AFTER DEC. 31, 1977, MUST BE SO EQUIPPED. EXISTING TYPE CARS USE TO TRANSPORT ANHYDROUS AMMONIA MUST BE EQUIPPED WITH HEAD SHIELD PROTECTION AFTER DEC. 31, 1977. EXISTING ANHYDROUS AMMONIA CARS MUST BE REEQUIPPED BY DEC. 31, 1981. EXISTING 112 AND 114 CARS MUST BE EQUIPPED WITH A THERMAL PROTECTION SYSTEM. IN ADDITION TO THE PUNCTURE RESISTANCE SYSTEM, THERE IS REQUIREMENT FOR NEW CARS BUILT AFTER JAN. 1, 1982, AND EXISTING CARS MUST BE SO REEQUIPPED BY DEC. 31, 1981.

RECNO	R75-022
FILE TYPE	RECOMMENDATION
ISATE	75 APR 10
MODE	RAILROAD
PRIORITY	
DUE DATE	75 JUL 10
STATUS	OPEN - UNACCEPTABLE ACTION
FOLLOW DATE	
BUREAU	
DIVISION	
ACQNTOR DATE	

БГ 8034

REVISE FORM F-580C.1 TO OBTAIN INFORMATION REQUIRED TO SUPPORT MILITARY APPROACH SUCH THAT THE DEGREE OF PROTECTION AFFECTS THE DEGREE OF SEVERITY OF SPECIFIC CONSEQUENCES IN ACCIDENTS. SUCH CHANGES SHOULD ADDRESS AT LEAST THE DETERMINATION OF THE DANGEROUSNESS, AND TYPES AND DEGREE OF INJURY OF DAMAGES EXPERIENCED BY THE VARIOUS TYPES OF PARTIES AT RISK.

RESOURCES

[illegible]

LOG NUMBER
SOURCE
REPORT NO
NOTATION NO
ADATE
ALOC
ASTATE
TX

R#0063
ACCIDENT
RAN#75-7
1597
74 SEP 21
HOUSTON
TX

ABSTRACT

RECNO

R#75-028
R#75-029
R#75-030

ABOUT NOON ON SEPTEMBER 21, 1974, 2 LOADED "JUMBO" TANK CARS, 17 AND 18 OF A 14-CAR COMPLEMENT, WERE UNCOUPLED AS A UNIT AT THE CREST OF THE GRAVITY HUMP IN THE SOUTHERN PACIFIC TRANSPORTATION COMPANY'S (SP) ENGLEWOOD YARD AT HOUSTON, TEXAS. THE TWO CARS PASSED THROUGH THE HUMP MASTER RETARDER AND GROUP RETARDER WITHOUT BEING SLOWED AND ACCELERATED AS THEY MOVED DOWN THE GRADE INTO RAIL TRACK 1. AT A SPEED OF 18 TO 20 MPH, THE TWO TANK CARS IMPACTED AN EMPTY TANK CAR. UPON IMPACT, THE COUPLER OF THE TANK CAR RODE OVER COUPLER OF CAR 17 AND PUNCTURED THE TANK HEAD. BUTADIENE SPILLED FROM THE CAR AND FORMED A VAPOR CLOUD, WHICH DISPERSED OVER THE AREA. AFTER 2 TO 3 MINUTES, THE VAPOR EXPLODED VIOLENTLY AS A RESULT, 1 PERSON DIED AND 235 WERE INJURED. TOTAL DAMAGES AMOUNTED TO ABOUT \$15 MILLION, WHICH INCLUDED THE DESTRUCTION OF 231 RAILROAD CARS AND SUBSTANTIAL DAMAGE TO 282 OTHERS.

RECNO R-75-C30
 FILE TYPE RECOMMENDATION
 DATE 75 MAY 21
 MODE RAILROAD
 PRIORITY
 DUE DATE 75 AUG 21
 STATUS OPEN - ACCEPTABLE ALTERNATE ACTION
 FOLLOW DATE 76 MAY 20
 BUREAU
 DIVISION
 MONITOR DATE

REC318

ISSUE REGULATIONS SUPERSEEDING EMERGENCY ORDER NO. 5 THAT
 WILL REQUIRE RAILROADS TO HANDLE THE SWITCHING OF CARS
 CONTAINING LARGE SHIPMENTS OF HAZARDOUS MATERIALS, WITH A
 DANGER RANGE BEYOND RAILROAD PROPERTY BOUNDARIES, IN THE
 SAME MANNER AS THEY HANDLE OPERATIONS OF CARS CONTAINING
 EXPLOSIVES.

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RESPONSE

LETTER FROM PRA TO THE CHAIRMAN, PRIOR TO ISSUANCE OF
 EMERGENCY ORDER NO. 5 ON 10/30/74, PRA PUBLISHED NPM IN
 CONNECTION WITH SWITCHING PLACARDED TANK CARS CONTAINING
 HAZARDOUS COMMODITIES. MORE THAN 40 COMMENTS WERE RECEIVED
 WHICH RAISED MANY VALID POINTS REQUIRING FURTHER STUDY. PRA
 BELIEVES THE EMERGENCY ORDER COVERS THE SPECIFIC PROBLEM OF
 UNINSULATED TANK CARS CONTAINING FLAMMABLE COMPRESSED GAS.
 AS A RESULT THE NPM HAS WITHDRAWN ON 4/21/76. ON 11/29/76
 PRA HAS PUBLISHED A NPM SPECIFYING CERTAIN MODIFICATIONS
 TO UNINSULATED TANK CARS, INCLUDING SHELF COUPLERS AND HEAD
 SHIELDS. SUCH REGULATIONS SHOULD COVER THE PROBLEM."

LOG NUMBER R-0076
 SOURCE ACCIDENT
 REPORT NO. RAN-76-6
 NOTATION M/N 1815
 ADATE 75 OCT 01
 ALOC PULASKI
 ASYATE TN

ABSTRACT

RECNO
 R-74-020
 R-74-021
 R-74-022

ABOUT 1250 P. M. ON OCTOBER 1, 1975, A LOCOMOTIVE UNIT AND 11 OF A TRAIN NO. 315 DETAILLED ON THE LOUISVILLE AND NASHVILLE RAILROAD COMPANY'S TRACK NEAR PULASKI, TENNESSEE. UP THE 19 PERSONS ON THE TRAIN, 31 WERE INJURED, PROPERTY AND EQUIPMENT DAMAGE AMOUNTED TO ABOUT \$1,067,000. THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINES THAT THE PROBABLE CAUSE OF THIS ACCIDENT WAS THE OVERTURNING OF THE OUTSIDE RAIL IN A 30-81 CURVE BY HIGH LATERAL FORCES INDUCED BY THE SIX-WHEEL TRUCK OF THE SP-400P LOCOMOTIVE. THESE FORCES EXCEEDED THE CAPABILITY OF THE TRACK WHICH MET CURRENT FRA STANDARDS. THE SPEED OF THE LOCOMOTIVE, ALTHOUGH NOT GREATER THAN THE SPEED ALLOWABLE FOR CLASS 4 TRACK, WAS TOO GREAT TO BE SUSTAINED BY THE TRACK.

LOG NUMBER H-0078
 SOURCE ACCIDENT
 REPORT NO 80476-7
 NOTATION NO 131
 DATE 75 OCT 17
 ALLOC ALLINGTON
 ASATE DE

ABSTRACT

RECNO

ON OCTOBER 17, 1975, ABOUT 6:37 P.M., A NORTHBROAD PENN
 CENTRA TRANSPORTATION COMPANY (PENN CENTRAL) PASSENGER
 TRAIN, NO. 944, STRUCK THE REAR OF PENN CENTRAL PASSENGER
 TRAIN NO. 132, WHICH HAD MADE AN UNSCHEDULED STOP NEAR
 ALLINGTON, DELAWARE, BECAUSE OF AN EQUIPMENT MALFUNCTION.
 TRAIN NO. 939, A SOUTHBROAD PENN CENTRAL PASSENGER TRAIN
 THAT WAS APPROACHING ON AN ADJACENT TRACK, STRUCK THE
 DERAILED EQUIPMENT FROM NO. 944. THE COLLISIONS INJURED 25
 PERSONS AND CAUSED PROPERTY DAMAGE OF \$917,686.

R76-024
 R76-025
 R76-026
 R76-027
 R76-028
 R76-029
 R76-030
 R76-031
 R76-032

RECNO
FILE TYPE
IDATE
MODE
PRIORITY
DUE DATE
STATUS
FOLLOWUP DATE
BUREAU
DIVISION
MONITOR DATE

R-76-C27
RECOMMENDATION
76 JUL 30
RAILROAD
CLASS II
76 OCT 30
OPEN - UNACCEPTABLE ACTION

REC SUB

ESTABLISH REGULATIONS FOR THE PROTECTION BY FLAGGING OF THE
RE OF ALL STOPPED TRAINS IN PASSENGER TERRITORY.

RESPONSE

LTR, FROM FRA TO THE CHAIRMAN ON JANUARY 27, 1977, FRA
PUBLIC PART 218-37 " FLAG PROTECTION " IN THE FEDERAL
REGISTER. THIS REGULATION PRESCRIBES THE INSTANCES IN WHICH
FLAG PROTECTION MUST BE PROVIDED, AS WELL AS THE TYPES OF
FLAGMAN'S SIGNALS TO BE USED IN DEVELOPING THE
REGULATION. FRA DETERMINED THAT FLAG PROTECTION AGAINST
FOLLOWING TRAINS ON THE SAME TRACK IS NOT REQUIRED IN (1)
THE REAR OF THE TRAIN IS PROTECTED BY AT LEAST TWO BLOCK
SIGNALS (2) THE REAR OF THE TRAIN IS PROTECTED BY AN
ABSOLUTE BLOCK (3) THE REAR OF THE TRAIN IS WITHIN AN
INTERLOCKING LIMITS OR (4) A TRAIN ORDER SPECIES THAT
FLAG PROTECTION IS NOT REQUIRED. WHETHER A TRAIN IS STOPPED
IN A PASSENGER OR NON-PASSENGER TERRITORY, THE REGULATION
PROVIDES THE PROTECTION NECESSARY TO ENSURE SAFETY IN
OPERATION. ANY ADDITIONAL REQUIREMENT FOR FLAGGING THE REAR
END OF ALL STOPPED TRAINS IN A PASSENGER TERRITORY WOULD
IMPOSE SUPERFLUOUS RESTRICTIVE PROCEDURES THAT COULD NOT BE
JUSTIFIED WITH AVAILABLE DATA.

RECNO
FILE TYPE
IDATE
MODE
PRIORITY
DUE DATE
STATUS
FOLLOWUP DATE
BUREAU
DIVISION
MONITOR DATE

R-76-C29
RECOMMENDATION
76 JUL 30
RAILROAD
CLASS II
76 OCT 30
OPEN - ACCEPTABLE ACTION

REC SUB

REQUIRE CARRIERS TO TRAIN EMPLOYEES IN EMERGENCY PROCEDURES
TO BE USED AFTER AN ACCIDENT, TO ESTABLISH PRIORITIES FOR
EMERGENCY ACTION, AND TO CONDUCT ACCIDENT SIMULATIONS TO
TEST THE EFFECTIVENESS OF THE PROGRAM, INVITING CIVIC
EMERGENCY PERSONNEL PARTICIPATION.

RESPONSE

LTR, FROM FRA TO THE CHAIRMAN FRA IS ANALYZING CARRIER
TEST TRAINING PROGRAMS SUBMITTED UNDER PART 217 " RAILROAD
OPERATING RULES. UPON COMPLETION OF ITS ANALYSIS, FRA WILL
DETERMINE WHAT TRAINING AND TESTING REGULATIONS ARE
NECESSARY TO ENSURE ADEQUATE TRAINING PROGRAMS. EMERGENCY
PROCEDURES TO BE USED FOLLOWING AN ACCIDENT WILL BE ONE OF

THE MANY ITEMS UNDER CONSIDERATION.

RECNO R76-030
 FILE TYPE RECOMMENDATION
 IDATE 76 JUL 30
 MODE RAILROAD
 PRIORITY CLASS II
 DUE DATE 76 OCT 30
 NSTATUS OPEN - ACCEPTABLE ACTION
 FOLLOW DATE
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

REQUIRE RAILROADS TO INCLUDE EMERGENCY PROCEDURES FOR CAB
 EVACUATION IN ITS TRAINING PROGRAM FOR OPERATING EMPLOYEES.

RESPONSE

LTR FROM FRA TO THE CHAIRMAN, FRA IS ANALYZING CARRIER
 TRAIN TESTING PROGRAMS SUBMITTED UNDER PART 217. RAILROAD
 OPERATING RULES. UPON COMPLETION OF THE ANALYSIS, FRA WILL
 DETERMINE WHAT TRAINING AND TESTING REGULATIONS ARE
 NECESSARY TO ENSURE ADEQUATE CARRIER PROGRAMS. EMERGENCY
 PROCEDURES TO BE USED FOLLOWING AN ACCIDENT WILL BE ONE OF
 THE MANY ITEMS UNDER CONSIDERATION.

LOG NUMBER R-0207A
 SOURCE OTHER
 REPORT NO SE-78-2
 NOTATION NO 237A
 ADATE 78 APR 06
 ALDC
 ASTATE

ABSTRACT

RECNO

R-78-032
 R-78-033

ON APRIL 6, 1978, THE NATIONAL TRANSPORTATION SAFETY BOARD
 CON A 3-DAY EN RAC HEARING ON RAILROAD DERAILMENTS AND THE
 CARRIAGE OF HAZARDOUS MATERIALS. THE HEARING WAS PROMPTED
 BY THE INCREASING NUMBER OF DERAILMENTS NATIONWIDE,
 SPECIALLY THOSE INVOLVING THE RELEASE OF HAZARDOUS
 MATERIALS. FOR DOT 124/114A JUBOR, TANK CARS, FORTY-ONE
 WITNESSES FROM THE RAILROAD INDUSTRY, TANK CAR BUILDERS AND
 OPERATORS, SHIPPERS, RECIPIERS AND LOCAL OFFICIALS,
 REPRESENTATIVES, LABOR REPRESENTATIVES, AND THE PUBLIC
 TESTIFIED AT THE HEARING.

RECNO R-78-032
 FILE TYPE RECOMMENDATION
 DATE 78 JUN 29
 MODE RAILROAD
 PRIORITY CLASS III
 DUE DATE 78 SEP 27
 STATUS OPEN - ACCEPTABLE ACTION
 FOLLOWUP DATE 79 FEB 22
 BUREAU
 DIVISION
 MONITOR DATE

REC5US

REVIEW AND DEVELOP NECESSARY REGULATIONS OR FUNDING MECHANISMS A HAZARDOUS MATERIALS TRACK IMPROVEMENT PRIORITY SYSTEM TO INSURE ADEQUATE PROTECTION OF THE PUBLIC IN URBAN CORRIDORS AGAINST ACCIDENT RISKS.

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RECNO R-78-033
 FILE TYPE RECOMMENDATION
 DATE 78 JUN 29
 MODE RAILROAD
 PRIORITY CLASS III
 DUE DATE 78 SEP 27
 STATUS OPEN - ACCEPTABLE ACTION
 FOLLOWUP DATE 79 FEB 22
 BUREAU
 DIVISION
 MONITOR DATE

REC5UR

PROVIDE SUFFICIENT FUNDING FOR RESEARCH THAT WILL ASSESS THE 5 EFFECTS OF HEAVIER CARS AND TRAINS ON PRESENT TRACK FACILITIES, AND SAFEST POSITIONING OF HAZARDOUS MATERIALS TANK CARS AND OTHERS IN TRAIN CONSISTS, AND ISSUE REGULATIONS RESULTING FROM THE FINDINGS OF THIS RESEARCH.

RESPONSE

THE FRA HAS ESTABLISHED THE HAZARD ANALYSIS AND PRIORITY DETERMINATION SYSTEM WHICH WILL UTILIZE STATISTICAL ANALYSIS TO IDENTIFY SAFETY PROBLEMS AND ATTRIBUTING CAUSES IN COMPONENT FAILURES THAT CAN POTENTIALLY CREATE CATASTROPHIC ACCIDENTS. THIS ANALYSIS WILL PROVIDE FRA EARLY RECOGNITION OF DEVELOPING PATTERNS LEADING TO THE CATASTROPHIC ACCIDENT WHILE IDENTIFYING EACH STEP IN THAT PATTERN. THE FRA IS ALSO CONDUCTING A 3 YEAR ACCIDENT STUDY (75 THROUGH 77) DIRECTED TOWARDS IMPROVING THE MOVEMENT OF HAZARDOUS MATERIAL.

RESPONSE

THE FRA IS CURRENTLY USING THE TRAIN OPERATION SIMULATION MODEL TO ANALYZE TRAIN MAKE-UP AND TRAIN HANDLING PROCEDURES. THIS SIMULATION WILL DETERMINE POSSIBLE TRACK LOCATIONS, TRAIN CONSISTS AND OPERATING PRACTICES WHICH ARE POTENTIALLY HAZARDOUS. THE RESULTS OF THE SIMULATION MODEL ARE TO BE RELEASED IN APRIL 1979.

RECNG
 FILE TYPE
 IOATE
 MODE
 PRIORITY
 DUE DATE
 STATUS
 FOLLOWUP DATE
 BUREAU
 DIVISION
 MONITOR DATE

M-75-036
 RECOMMENDATION
 78 JUN 29
 RAILROAD
 CLASS II
 78 SEP 27
 OPEN - UNACCEPTABLE ACTION
 79 MAR 01

RECSUB

EVALUATE AND REVISE THE STATE PARTICIPATION PROGRAM TO
 ALLOW STATE EFFECTIVE RE-EVALUATION OF THE PROGRAM
 ON THE STATE'S ABILITY TO ADEQUATELY MONITOR RAILROAD AND
 HAZARDOUS MATERIALS SAFETY.

RESPONSE

FRA LTH THIS RECOMMENDATION IS NEITHER VALID NOR IS IT
 NECESSARY AND THE FEDERAL RAILROAD ADMINISTRATION
 CONSIDERS IT TO BE CLOSED, THE STATE PARTICIPATION
 PROGRAM DOES NOT PROVIDE FUNDING OR STATE PARTICIPATION
 THE ENFORCEMENT OF THE HAZARDOUS MATERIALS REGULATIONS.
 THE LEGISLATION DOES PROVIDE FOR STATE PARTICIPATION IN
 THE ENFORCEMENT OF THE PRESENT CAN SAFETY STANDARDS AND
 ALL HAZARDOUS MATERIALS. SINCE THE CAN REGULATIONS AFFECT
 ALL HAZARDOUS MATERIALS, IT WOULD NOT BE IN THE
 PUBLIC'S BEST INTEREST TO REVISE A PROGRAM TO ALLOW THE
 STATES TO ENFORCE THE CAN REGULATIONS PERTAINING TO THE
 RAILROADS ONLY.

LOG NUMBER
SOURCE
REPORT NO
NOTATION NO
ADATE
ALOC
ASTATE
FL

RECNO

ABSTRACT

ABOUT 6106 P.M., ON NOVEMBER 9, 1977, 2 80-45 LOCOMOTIVE
UNIT 35 CARS OF LOUISVILLE & NASHVILLE FREIGHT TRAIN NO.
407 DERILED WHEN ENTERING A 6 DEGREE S-CURVE AT
PELACCA, FLORIDA. THE ADJACENT TANK HEADS OF THE 18TH AND
19TH CARS WERE PUNCTURED DURING THE DERAILMENT BY A LOOSE
WHEEL AND AXLE ASSEMBLY. THIS RELEASED OILHYDROUS FLUIDS
INTO THE ATMOSPHERE. 10 PERSONS DIED AND 46 WERE INJURED
AS A RESULT OF THE DERAILMENT. RELEASE OF ANYDROUS
AROUND AND EVACUATION OF ABOUT 1,000 PERSONS. PROPERTY
DAMAGE WAS ESTIMATED TO BE \$724,000.

RECNO R78-C46
 FILE TYPE RECOMMENDATION
 IDATE 78 JUL 31
 MODE RAILROAD
 PRIORITY CLASS II
 DUE DATE 78 OCT 29
 NSTATUS OPEN - AWAIT REPLY
 FOLLOW DATE
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

PROMULGATE REGULATIONS TO REQUIRE RAILROADS TO LIMIT THE
 LENGTH TONNAGE OF TRAINS CARRYING HAZARDOUS MATERIALS TO
 TRAIN MAKEUP PRINCIPLES DEVELOPED UNDER THE TRACK TRAIN
 DYNAMIC PROGRAM.

RESPONSE

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RECNO R78-C47
 FILE TYPE RECOMMENDATION
 IDATE 78 JUL 31
 MODE RAILROAD
 PRIORITY CLASS II
 DUE DATE 78 OCT 29
 NSTATUS OPEN - AWAIT REPLY
 FOLLOW DATE
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

PROMULGATE REGULATIONS TO REQUIRE RAILROADS TO PROVIDE
 PERTINENT HAZARDOUS MATERIALS EMERGENCY INFORMATION ON
 WAYBILLS AND TO MAKE THIS INFORMATION AVAILABLE TO PUBLIC
 EMERGENCY PERSONNEL.

RESPONSE

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LOG NUMBER R-0220
 SOURCE ACCIDENT
 REPORT NO R48-718-7
 NOTATION NO 2483
 ADATE 78 FEB 26
 ALOC YOUNGSTOWN
 ASTATE FL

RECNO ABSTRACT

R-78-058 ON FEBRUARY 26, 1978, AN ATLANTA & SAINT ANDREWS RAY
 R-78-059 RAILWAY FREIGHT TRAIN DERAILED AT MILEPOST 28.3 NEAR
 YOUNGSTOWN, OHIO, AS A RESULT, CHOKING GAS, RELEASED
 FROM A TANK CAR, KILLED 8 PERSONS AND INJURED 138.
 PROPERTY DAMAGE WAS ESTIMATED AT \$1,089,000.

RECNO 578089
 FILE TYPE RECOMMENDATION
 IDATE 7 NOV 32
 MODE RAILROAD
 PRIORITY CLASS II
 DUE DATE 79 FEB 20
 NSTATUS OPEN - Awaiting REPLY
 FOLLOWUP DATE
 BUREAU
 DIVISION
 MONITOR DATE

RECSUB

RESPONSE

EXPEDITE THE RESEARCH TO DETERMINE THE SAFEST POSITION
 OF HAZARDOUS MATERIALS TANK CARS AND OTHERS IN FREIGHT
 TRAINS AS CONTAINED IN RECOMMENDATION #78-32 AND AS A
 RESULT, PROMPTLY ISSUE REGULATIONS FOR ADEQUATE BRAKING
 AND PLACEMENT OF SUCH CARS IN FREIGHT TRAINS.

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LOG NUMBER
SOURCE
REPORT NO
NOTATION NO
ACATE
ALOC
ASTATE

ABSTRACT

ON SEPTEMBER 18, 1978, LOUISVILLE AND NASHVILLE RAILROAD COMPANY LOCAL FREIGHT TRAIN EXTRA 542 SOUTH COLLECTED HEDGON WITH LANSARD TRAIN CO. OF INDIANAPOLIS, INDIANA AT FLORENCE, ALABAMA. THE ENGINEER AND HEAD BRAKEMAN ON THE LOCAL FREIGHT AND THE CONDUCTOR OF THE TRAIN WERE KILLED. PROPERTY DAMAGE WAS ESTIMATED TO BE \$452,500.

RECNO R-79-008
 FILE TYPE RECOMMENDATION
 IDATE 79 MAR 06
 MODE RAILROAD
 PRIORITY CLASS II
 DUE DATE
 NSTATUS
 FOLLOW DATE
 BUREAU
 DIVISION
 MONITOR DATE

RECSUR

RESPONSE

CORRECT ITS TIMETABLE INSTRUCTIONS ON HANDLING AND
 PLACEMENT OF HAZARDOUS MATERIALS CARS SO THAT THEY
 COMPLY WITH CURRENT FEDERAL REGULATIONS.

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RECNO R-79-009
 FILE TYPE RECOMMENDATION
 IDATE 79 MAR 06
 MODE RAILROAD
 PRIORITY CLASS II
 DUE DATE
 NSTATUS
 FOLLOW DATE
 BUREAU
 DIVISION
 MONITOR DATE

RECSUR

RESPONSE

INCLUDE IN THE REQUIRED SUPERVISORY EFFICIENCY AND
 SAFETY CHECKS THE MONITORING OF COMPLIANCE WITH
 HAZARDOUS MATERIALS REGULATIONS.

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LOG NUMBER
SOURCE
REPORT NO
NOTATION NO
ACATE
ALOC
ASTATE

W-027A
ACCIDENT
W-79-2
268
7A SEP 18
FLORENCE
AL

ABSTRACT

RECNO

W-79-010
W-79-011
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ON SEPTEMBER 18, 1978, LOUISVILLE AND NASHVILLE RAILROAD COMPANY LOCAL FREIGHT TRAIN EXTRA 502 SOUTH COLLIDED HEAD-ON WITH LAI YARD TRAIN NO. 01 INSIDE YARD LIMITS AT FLORENCE, ALABAMA. THE ENGINEER AND HEAD BRAKEMAN OF THE LOCAL FREIGHT AND THE CONDUCTOR OF THE YARD TRAIN WERE KILLED. PROPERTY DAMAGE WAS ESTIMATED TO BE \$482,500.

RECNO
FILE TYPE
INATE
MODE
PRIORITY
DUE DATE
STATUS
POLLN DATE
BUREAU
DIVISION
ACTION DATE

WESLEY

INSURE THAT THE LOUISVILLE AND NASHVILLE RAILROAD COMPANY COMPLIES WITH THE REQUIREMENTS OF 49 CFR 174, TRANSPORTATION OF HAZARDOUS MATERIALS; 49 CFR 235, RAILROAD PAPER BRAKES; AND 49 CFR 217, RAILROAD OPERATING RULES, PARTICULARLY IN CONNECTION WITH THE APPLICATION AND ENFORCEMENT OF LAN RULES 93 AND 99.

RESPONSE

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LOG NUMBER R-0592
 SOURCE SPECIAL STUDY
 REPORT NO SEE-79-2
 NOTATION NO 253
 ADATE 79 MAR 20
 ALOC
 ASTATE

RECNO ABSTRACT

R-79-014 IN JUNE 1979, THE CONFEREES OF THE HOUSE AND SENATE
 R-79-015 APPROPRIATION COMMITTEES DIRECTED THE NATIONAL
 R-79-016 TRANSPORTATION SAFETY BOARD TO CONDUCT A THOROUGH REVIEW
 R-79-017 OF HAZARDOUS MATERIALS RAIL SHIPMENTS AND THE APPLICABLE
 R-79-018 TRACK STANDARDS AS WELL AS DETERMINE HOW THE FEDERAL
 R-79-019 RAILROAD ADMINISTRATION CAN MORE EFFECTIVELY PREVENT THE
 R-79-020 OCCURRENCE AND REDUCE THE SEVERITY OF DEMAILMENTS OF
 R-79-021 HAZARDOUS MATERIALS.
 R-79-022
 R-79-023
 R-79-024
 R-79-025
 R-79-026
 R-79-027
 R-79-028

RECNO
FILE TYPE
DATE
MODE
PRIORITY
DUE DATE
STATUS
FOLLOW DATE
BUREAU
DIVISION
MONITOR DATE

R79-016
RECOMMENDATION
79 MAR 80
RAILROAD
CLASS II
79 JUN 18
OPEN - AWAIT REPLY

RESPONSE

DEVELOP A DATA BASE THAT WILL ALLOW THE DEFINITION AND
RATING OF RAILROAD SAFETY PROBLEMS, PARTICULARLY THOSE
PROBLEMS RELATED TO THE DERAILMENT OF HAZARDOUS
MATERIALS.

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RECNO
FILE TYPE
DATE
MODE
PRIORITY
DUE DATE
STATUS
FOLLOW DATE
BUREAU
DIVISION
MONITOR DATE

R79-022
RECOMMENDATION
79 MAR 80
RAILROAD
CLASS II
79 JUN 18
OPEN - AWAIT REPLY

RESPONSE

DETERMINE IN COOPERATION WITH THE ICC THE FEASIBILITY OF
ESTABLISHING HAZARDOUS MATERIALS ROUTES TO BYPASS
POPULOUS AREAS. IF HAZARDOUS MATERIALS ROUTING IS
OPERATIONALLY FEASIBLE, REQUIRE THAT THE TRACK ON THOSE
ROUTES BE MAINTAINED AT A MINIMUM OF CLASS 4 CONDITION.

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RECNO
FILE TYPE
DATE
MODE
PRIORITY
DUE DATE
STATUS
FOLLOW DATE
BUREAU
DIVISION
MONITOR DATE

R79-024
RECOMMENDATION
79 MAR 80
RAILROAD
CLASS II
79 JUN 18
OPEN - AWAIT REPLY

RESPONSE

RECNO

IN COOPERATION WITH THE INTER-INDUSTRY TASK FORCE, DETERMINE WHAT ADDITIONAL COST-EFFECTIVE STEPS, BASED ON RISK-MAKING RESULTS, CAN BE TAKEN TO MAKE TANK CARS MORE RESISTANT TO HAZARDOUS MATERIALS RELEASES IN DETAILMENTS.

RECNO 790628
RECOMMENDATION
FILE TYPE 79 MAR 20
IDATE RAILROAD
MODE CLASS I
PRIORITY 79 JUN 18
DUE DATE
STATUS OPEN - Awaiting REPLY

FOLLOW DATE
BUREAU
DIVISION
MONITOR DATE

RECUS

RECUSE

REQUIRE THAT ALL TRAINS WITH PLACARDED LOADED TANK CARS OF THE 11A AND 11A TYPES NOT EQUIPPED WITH THE REQUIRED SELF-PROTECTING COUPLERS AND TANK HEAD PROTECTION, WHICH ARE LOADED WITH FLAMMABLE GASES AND OTHER LIQUIDS OR TOXIC COMBUSTIBLE GASES, OPERATE AT A SPEED 10 MPH LESS THAN THE MAXIMUM SPEEDS AUTHORIZED FOR THOSE TRAINS ON CLASSES 3, 4, 5, AND 6 TRACK.

Mr. ANDERSON. Anything further?

[No response.]

Mr. ANDERSON. Thank you very much, Mr. Driver, Mr. Clarke and Mr. Benner.

If there is nothing more, then, I would like to remind the members that this bill must be reported by May 15, 1979. Therefore, the two subcommittees will not hold a formal markup. Instead, I am going to ask unanimous consent to discharge the subcommittees from further consideration of this legislation and refer it to the full committee.

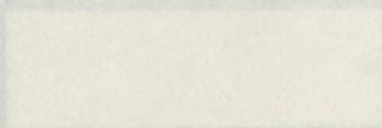
Thus, I ask unanimous consent that the Subcommittee on Surface Transportation and the Subcommittee on Aviation be discharged from further consideration of H.R. 3502 and that it be referred to the full committee for consideration.

No objection, so ordered.

If there is nothing further, we stand adjourned.

[Whereupon, at 4:23 p.m., the joint subcommittees were adjourned.]







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