

---

Friday  
March 16, 1984

**FRIDAY  
MARCH 16, 1984**

---

**Part IV**

**Department of  
Transportation**

---

**Research and Special Programs  
Administration**

---

**49 CFR Part 171**

**Detailed Hazardous Materials Incident  
Reports; Proposed Rule**

**49 CFR Part 172**

**Required Use of Emergency Response  
Guidebooks and Material Safety Data  
Sheets; Proposed Rule**

## DEPARTMENT OF TRANSPORTATION

Research and Special Programs  
Administration

## 49 CFR Part 171

[Docket No. HM-36B; Notice 84-1]

Detailed Hazardous Materials Incident  
ReportsAGENCY: Materials Transportation  
Bureau, Research and Special Programs  
Administration, DOT.ACTION: Advance Notice of Proposed  
Rulemaking, and Notice of Public  
Hearing.

**SUMMARY:** This notice invites comments on changing the reporting criteria for hazardous materials (hazmat) incidents under 49 CFR 171.16. The purpose of this notice is to review existing regulations for clarity and effectiveness. Comments are also invited on the adequacy of certain of the data fields in DOT Form F 5800.1 for purposes of describing the safety performance record of DOT specification packages. Comments received will be considered in the publication of a notice of proposed rulemaking if it is decided to propose specific changes to the existing requirement for carriers to submit detailed hazardous materials incident reports.

**DATES:** A public hearing on the matters raised by this notice will be held on May 1, 1984, in Washington, D.C., at 400 Seventh Street, SW., Room 2230, from 9:30 a.m. to 5:00 p.m. Interested persons are invited to participate in the public hearing. The closing date for submission of written comments is June 5, 1984.

**ADDRESS:** Address comments to Dockets Branch, Materials Transportation Bureau, U.S. Department of Transportation, Washington, D.C. 20590. Comments should identify the docket and be submitted, if possible, in five copies. Persons wishing to receive confirmation of receipt of their comments should include a self-addressed stamped post card. The Dockets Branch is located in Room 8426, Nassif Building, 400 Seventh Street, SW., Washington, D.C. 20590. Public dockets may be reviewed between the hours of 8:30 a.m. and 5:00 p.m. Monday through Friday. Telephone (202) 426-3148.

**FOR FURTHER INFORMATION CONTACT:** J. S. Nalevanko, Office of Regulatory Planning and Analysis, U.S. Department of Transportation, Washington, D.C. 20590, Telephone: (202) 472-2698, or Irving R. Abis, Standards Division, Office of Hazardous Materials Regulation, U.S. Department of

Transportation, Washington, D.C. 20590, Telephone: (202) 426-2075.

## SUPPLEMENTARY INFORMATION:

## Background

The Materials Transportation Bureau (MTB) is reviewing the requirements of § 171.16 that each carrier who transports hazardous materials submit to the Department a hazardous materials (hazmat) incident report (DOT Form F 5800.1) for each incident that occurs during the course of transportation (including loading/unloading, or temporary storage). The review was conducted in accordance with Executive Order 12291 as a part of MTB's program to evaluate existing regulations for clarity and to revoke or revise those that are not achieving their intended purpose; or can achieve their intended purpose in a more effective and efficient manner. To accomplish this purpose, a review team consisting of the personnel of several offices of MTB was established.

The review is also consistent with the final rule under Docket HM-36 (35 FR 16836, October 31, 1970) which established the current reporting requirements for hazardous materials incidents. In that docket it was noted that, after a period of time, the Department would evaluate the effectiveness of the incident reporting system and, as appropriate, take further rulemaking action to incorporate additional input on the reporting of hazardous materials incidents.

One of the major objections raised in Docket HM-36 referred to the requirement that a detailed, written report be filed in every case where there "has been an unintentional release of hazardous materials from a package." Many commenters believed that the Department would be flooded with numerous incident reports relating to the release of insignificant amounts of hazardous materials. In response to these comments, the Hazardous Materials Regulations Board (the predecessor of the present Materials Transportation Bureau) stated that it was not in a position to determine whether there are insignificant unintentional releases of hazardous materials that do not warrant the filing of a written report; and that it lacked criteria to establish a line between those releases that should and those that should not be reported.

This Advanced Notice of Proposed Rulemaking is intended to assist MTB in determining what these criteria should be, in light of the more than 130,000 hazmat incident reports submitted to MTB over the past 12 years.

## The Present Reporting Requirements

The present reporting requirements of § 171.16 are triggered by the following criteria (Reporting criteria (A) and (B) below also require telephonic reports, as required by § 171.15.):

(A) All releases of a hazardous material, which as a direct result of the hazardous material, result in:

A fatality;

An injury requiring hospitalization; Estimated carrier or other property damage exceeding \$50,000.

(B) All incidents, whether or not there is an actual release of a hazardous material, in which:

A fire, breakage, spillage, or suspected contamination occurs involving shipment of radioactive materials;

A fire, breakage, spillage, or suspected contamination occurs involving shipment of etiologic agents; A situation exists of such a nature that in the judgment of the carrier, it should be reported, e.g., a continuing danger to life exists at the scene of the incident.

(C) All unintentional releases of hazardous materials from a package (including a tank) or any quantity of a hazardous waste during transportation, except for the following hazardous materials (except aboard aircraft):

Consumer commodity;

Battery, *electric storage*, wet, filled with acid or alkali;

Paint and paint related materials when shipped in packagings of five gallons or less.

Under these criteria, an average of 7,900 incidents per year have been reported to MTB over the last two years. The vast majority of these reports pertain to criterion (C)—that is, they do not involve a death, an injury, damage exceeding \$50,000, etc., and are primarily associated with incidents involving small packages, such as drums, bottles, cans, boxes, bags, etc. Approximately 79 percent of all incident reports involve small packages.

Nature and Extent of the Existing  
Hazmat Incident Reporting Data Base

At the beginning of 1983, there were approximately 130,000 hazmat incident reports (DOT Form F 5800.1) in the hazmat incident computerized data base. These reports span the 12-year period 1971-1982. During the two-year period 1981-1982, the data base increased by an average of 7,900 reports per year. Each report (see DOT Form F 5800.1 at the end of this document) contains approximately 30 primary data

fields (e.g., date of incident, mode, name of carrier, name of shipper, commodity released, etc.). The data fields are further broken down by various codes including the following:

- 11,700 Companies (name, duns number, address, etc.)
- 1,400 Specific hazardous materials (e.g., gasoline)
- 328 Package types and specifications
- 27 Failure codes (e.g., dropped in handling)—of which only 15 actually appear on the report (the other 12 codes being inferred and assigned by MTB personnel)
- 25 Violation codes (e.g., driver not in attendance)
- 25 Significance codes (e.g., incidents involving 1–10 injuries)
- 35 Placard codes (e.g., empty)
- 21 Miscellaneous codes (e.g., vandalism suspected)
- 12 Restriction codes (e.g., removable head not authorized)
- 8 Type of Record codes (e.g., generic container type)

The 30 primary data fields on the incident report, plus the detailed and extensive data codes that have been applied to the reports, lead to an extremely vast and varied data base (e.g., the 30 primary data fields alone can be combined in  $2.6 \times 10^{32}$  or 260 million, trillion trillion ways). Even if a minute fraction of such combinations were analytically useful or meaningful, any attempt to analyze all of them would be very difficult, probably impossible, and in any case, enormously costly.

Several salient aspects of the existing hazmat data base are the following:

There were a total of 282 fatalities and 7,150 minor to severe injuries associated with the approximately 130,000 hazmat incident reports in the data base as of the beginning of 1983. Over the last three years, an annual average of 7,154 incidents, 8 fatalities and 172 injuries have been reported to the MTB.

Twenty-one percent of the 130,000 incident reports pertain to bulk packagings (e.g., cargo tanks, rail tank cars). Over the 12-year period, 1971–1982, hazmat incidents involving these containers resulted in 270 fatalities (96 percent of the total of all hazmat fatalities) and 4,305 injuries (60 percent of the total of all hazmat injuries).

Seventy-nine percent, or 102,700 of the 130,000 incident reports in the data base, pertain to small packages, such as bags, boxes, and drums. Of these 102,700 incidents, 84 percent are accounted for by only five DOT drum specifications, and seven generic or

general purpose packages (e.g. cans, jugs, and bottles) which can be used to transport hazardous materials not requiring a DOT specification package. Over the 1971–1982 period, reported incidents involving these small packages resulted in 12 deaths and 2,845 injuries.

Seventy-six percent of all fatalities and 50 percent of all injuries have involved the following 12 selected hazardous materials.

Hazardous material	Percent total fatalities	Percent total injuries
Gasoline	49.2	4.9
LP-Gas	18.6	8.8
Anhydrous Am (NH <sub>3</sub> )	5.7	6.5
Corrosive Liquid NOS	2.7	2.9
Chlorine	2.7	5.5
Explosive, A	2.7	0.5
Flammable Liquid, NOS	1.7	3.7
Sulfuric acid	0.7	8.5
Sodium hydroxide	0.7	3.0
Hydrochloric acid	0.3	2.1
Compound cleaning liquid		1.7
Poison Liquid, NOS		1.5

It is MTB's belief that the continued augmentation of the existing data base under current requirements for incident reporting will not significantly increase an understanding of the causes, the nature, and the consequences associated with hazmat incidents. These incidents primarily pertain to incidents involving small packages.

This belief is based on, (1) the vast amount of data on small packages/containers already in the 12-year data base, (2) the diminishing marginal utility associated with the continued growth in the data base, rather than selective and judicious increases in the data base, in terms of the 30 primary data fields contained in the current incident report form, and (3) given the underlying millions of shipments, vehicle transit miles, and the varied nation-wide transportation environment, the fact that incidents involving small package/container of hazardous materials have been largely low consequences events.

#### Development of New Reporting Criteria

MTB has sought to develop alternatives to the current reporting criteria in terms of the following set of factors.

- (A) Characterization of Hazmat Accident/Incident Event
  - Type of Event (e.g., in-transit, loading/unloading)
  - Type of Package (e.g., bulk/non-bulk)
  - Type of Hazmat (e.g., flammable liquid, explosives, etc.)
  - Mode (e.g., rail, highway, air, etc.)
  - Severity of Event
  - Frequency of Event
- (B) Definition of Users
  - DOT/MTB

- Other Federal Agencies
- State and Local Governments
- Public Interest Groups
- Industry
- (C) Objectives of Users
  - Public Safety
  - Product/Container Performance
  - Research and Development
  - Determination of Liability

(D) User Data Requirements  
Analytic Purposes (e.g., human factor analysis, cause-consequence analysis, fault-tree analysis, procedures analysis, cost/benefit/risk analysis)

Programmatic and Policy Analysis (e.g., enforcement and compliance, regulatory development, package performance)

(E) Nature of Data Requirements To Meet Purpose (e.g., essential/non-essential, level of detail, usefulness, i.e., multiple/single purpose applications, utilization, i.e., actual/potential, non-duplicative)

(F) Methods of Data Collection (e.g., routine reporting, special studies/surveys, other data sources)

(G) Costs Incurred in Data Collection (e.g., industry, government)

The above factors are all interrelated and entail a large number of considerations. The following summarizes the review team's major findings concerning them.

In terms of the characterization of a hazmat accident/incident event: clearly, an event involving a hazmat accident/incident—e.g., a cargo tank spill during loading/unloading operations—can be described in an extremely large number of ways, and can serve to generate an enormous array of data such as time of day, weather conditions, age of driver, type of truck, type of valve, manufacturer of valve, age of valve, design characteristics of valve, location of incident, type of hazmat released, amount released, etc.

Further distinctions characterizing a hazmat accident/incident event are also possible and useful. One can distinguish between events in which a hazardous material is actually spilled and events in which a hazardous material package is involved, but no spillage occurs. The current reporting requirements of 171.16, for the most part, pertain to events involving the actual spillage of a hazardous material. An event of this kind is termed an "incident." An event involving a hazmat package (e.g., a gasoline cargo tank overturning) but not involving a spillage of a hazardous material is not required to be reported to MTB. It should be noted, however, that this does not necessarily mean that such an event is not reported to the Department

since, in the case of a cargo tank, it may be reported to the Bureau of Motor Carrier Safety as a motor vehicle accident.

Two further and related distinctions concern the "severity" and "frequency" of hazmat accident/incident events. These distinctions lead to the four-fold typology of:

High consequence—high frequency events.

High consequence—low frequency events.

Low consequence—high frequency events.

Low consequence—low frequency events.

Of the four types of events, the first two are considered of greater inherent concern, even though the remaining two types cannot be completely ignored, because certain types of low consequence events may have the potential for producing very high consequences under certain circumstances.

Just what type or arrays of data are to be generated is a function of the objectives of the users of the data, their data requirements, and a host of other considerations, including the cost associated with collecting, storing, and analyzing the data. Cost is a particularly important consideration, since many people find that certain data are "essential" for their purposes, only so long as they do not bear the cost of obtaining and maintaining the data.

With respect to the users of hazmat data and their objectives, the review team found, perhaps not surprisingly, that MTB is now and will continue to be the "primary" user of such data; that its program data requirements have priority over other user requirements; and that, although other user requirements should be accommodated to the extent possible, the hazmat data base cannot be all things to all possible users.

With respect to the primary objectives to be served from the vast array of data that can be generated by a hazmat accident/incident event, the review team found that these data should (1) serve as an aid in evaluating the effectiveness of the existing regulations, (2) assist in determining the need for regulatory changes to cover transportation safety problems, and (3) determine the major problem areas in hazmat transportation so that the attention of the Department may be more suitably directed to those areas.

To accomplish these objectives, the general nature of the data to be reported to MTB should have the following characteristics:

(A) The data should be *essential*, not merely "desirable." Indeed, the essential

nature of the data is implied by the term "requirement."

(B) Because the data are essential, they must be collected on a *routine basis*, rather than on a one-time, or intermittent, basis.

(C) Because it is a routine procedure, it is not practical that each separate report be of an extremely detailed nature. Extremely detailed data should be obtained through special studies or surveys (follow ups). The data should, therefore, be *general purpose data*, which maximizes their *usefulness* and actual (as against potential) *utilization*.

(D) The data should be *non-duplicative* with respect to the existence of other data of the same or similar nature and with respect to the *volume* of data (e.g., 100 incident reports may provide as much information as 1,000 reports) if each report contains essentially the same data.

#### Change Under Consideration

On the basis of the foregoing discussion, MTB is considering changing § 171.16, with respect to criteria for reporting incidents and the content and format of the report form (DOT Form F 5800.1). Under this change, carriers would be required to submit detailed written reports for incidents having the following characteristics:

(A) All incidents involving telephonic notifications required under § 171.15.

(B) All incidents involving bulk packagings.

(C) All incidents involving transportation aboard aircraft.

(D) All incidents involving property damage from the incident, including cleanup and decontamination, resulting in costs equal to or in excess of \$1,000, incurred or anticipated to be incurred within 15 days of the incident.

(E) All incidents involving the evacuation of people.

(F) All incidents involving materials or packages shipped under MTB's exemption program.

(G) All incidents involving the release of hazardous waste.

Under this approach, § 171.16(a) would read as follows:

(a) Each carrier who transports hazardous materials shall report in writing, in duplicate, on DOT Form F 5800.1 to the Department within 15 days of the discovery, each incident that occurs during the course of transportation (including loading, unloading, or temporary storage) in which, as a direct result of the hazardous materials, any of the circumstances set forth in § 171.15(a) occurs; and all unintentional releases of hazardous materials involving:

(1) Bulk packagings:

(2) Shipments aboard aircraft or in air terminals;

(3) Property damage, including cleanup and decontamination, resulting in costs equal to or in excess of \$1,000 incurred or reasonably anticipated to be incurred within 15 days of the incident;

(4) The evacuation of people;

(5) Packages or hazardous materials shipped under an exemption; and

(6) Any quantity of hazardous waste that has been discharged during transportation.

The current § 171.16(a)(1) and 171.16(a)(2) requirements pertaining to hazardous waste would be retained and redesignated as §§ 171.16(a)(6)(i), and 171.16(a)(6)(ii).

To assist in the selection of appropriate criteria for the submission of detailed, written reports on hazmat incidents, MTB invites interested persons to participate in this rulemaking. In particular, MTB requests comments addressed to the following questions and submission of any substantiating information:

1. In terms of the foregoing discussion and proposed reporting criteria identified herein, are there other criteria that should be considered for purposes of submitting detailed written reports on accidents or incidents involving hazardous materials? If so, what are they?

2. Does the current DOT incident report form (DOT Form F 5800.1) provide an adequate basis for:

a. Identifying major safety performance trends in the transportation of hazardous materials?

b. Providing a source of data for small packages and bulk packages safety design information and optimization in the transportation environment?

3. Should a separate incident report form be developed to focus exclusively on small package failure mechanisms in the transportation environment (in contrast to the present report form, DOT Form F 5800.1, which is used to describe hazmat incident data involving both packages, e.g., cargo tanks and small package incidents)? What data fields or failure mechanisms might such a report form include?

4. Is a \$1,000 damage figure an adequate criterion for determining a threshold for reporting hazmat incidents that are otherwise without consequence? What is an appropriate property damage reporting criterion? Should an environmental damage criterion be included?

5. If no other formal proposal is made to the present incident reporting system, what changes do you recommend to the format and content of the present

incident report form (DOT Form F 5800.1)?

6. Does your organization report, or is your organization now required to report hazardous material or hazardous waste, or hazardous substance accidents/incidents to another organization (e.g., insurance company, state or local

government, other federal agency)? What are the criteria for reporting such accidents/incidents? Is there a standard form to be filled out? (please attach a copy of such form, if appropriate.)

7. To what extent does your organization utilize hazmat incident data? Does your organization collect

hazmat incident data? If so, what is the source and nature of these data? How often are such data collected (routinely, special surveys, etc.)? If any standardized forms are utilized in the collection of such data, we would appreciate receiving a copy of them.

BILLING CODE 4310-03-M

## DEPARTMENT OF TRANSPORTATION

Form Approved OMB No. 04-5613

## HAZARDOUS MATERIALS INCIDENT REPORT

**INSTRUCTIONS:** Submit this report in duplicate to the Director, Office of Hazardous Materials Operations, Materials Transportation Bureau, Department of Transportation, Washington, D.C. 20590, (ATTN: Op. Div.). If space provided for any item is inadequate, complete that item under Section H, "Remarks", keying to the entry number being completed. Copies of this form, in limited quantities, may be obtained from the Director, Office of Hazardous Materials Operations. Additional copies in this prescribed format may be reproduced and used, if on the same size and kind of paper.

<b>A INCIDENT</b>		
1. TYPE OF OPERATION 1 <input type="checkbox"/> AIR 2 <input type="checkbox"/> HIGHWAY 3 <input type="checkbox"/> RAIL 4 <input type="checkbox"/> WATER 5 <input type="checkbox"/> FREIGHT FORWARDER 6 <input type="checkbox"/> OTHER (Identify) _____		
2. DATE AND TIME OF INCIDENT (Month - Day - Year) _____ a.m. _____ p.m.		3. LOCATION OF INCIDENT
<b>B REPORTING CARRIER, COMPANY OR INDIVIDUAL</b>		
4. FULL NAME		5. ADDRESS (Number, Street, City, State and Zip Code)
6. TYPE OF VEHICLE OR FACILITY		
<b>C SHIPMENT INFORMATION</b>		
7. NAME AND ADDRESS OF SHIPPER (Origin address)		8. NAME AND ADDRESS OF CONSIGNEE (Destination address)
9. SHIPPING PAPER IDENTIFICATION NO.		10. SHIPPING PAPERS ISSUED BY <input type="checkbox"/> CARRIER <input type="checkbox"/> SHIPPER <input type="checkbox"/> OTHER (Identify) _____
<b>D DEATHS, INJURIES, LOSS AND DAMAGE</b>		
DUE TO HAZARDOUS MATERIALS INVOLVED		
11. NUMBER PERSONS INJURED		13. ESTIMATED AMOUNT OF LOSS AND OR PROPERTY DAMAGE INCLUDING COST OF DECONTAMINATION (Round off in dollars) \$
12. NUMBER PERSONS KILLED		
14. ESTIMATED TOTAL QUANTITY OF HAZARDOUS MATERIALS RELEASED		
<b>E HAZARDOUS MATERIALS INVOLVED</b>		
15. HAZARD CLASS (*Sec. 172.101, Col. 3)		16. SHIPPING NAME (*Sec. 172.101, Col. 2)
		17. TRADE NAME
<b>F NATURE OF PACKAGING FAILURE</b>		
18. (Check all applicable boxes)		
(1) DROPPED IN HANDLING	(2) EXTERNAL PUNCTURE	(3) DAMAGE BY OTHER FREIGHT
(4) WATER DAMAGE	(5) DAMAGE FROM OTHER LIQUID	(6) FREEZING
(7) EXTERNAL HEAT	(8) INTERNAL PRESSURE	(9) CORROSION OR RUST
(10) DEFECTIVE FITTINGS, VALVES, OR CLOSURES	(11) LOOSE FITTINGS, VALVES OR CLOSURES	(12) FAILURE OF INNER RECEPTACLES
(13) BOTTOM FAILURE	(14) BODY OR SIDE FAILURE	(15) WELD FAILURE
(16) CHIME FAILURE	(17) OTHER CONDITIONS (Identify)	19. SPACE FOR DOT USE ONLY

Form DOT F 5800.1 (10-70) (9/1/76)

\*Editorial change to incorporate redesignation per HM-112.

G PACKAGING INFORMATION - If more than one size or type packaging is involved in loss of material show packaging information separately for each. If more space is needed, use Section H "Remarks" below keying to the Item number.				
ITEM		#1	#2	#3
20	TYPE OF PACKAGING INCLUDING INNER RECEPTACLES (Steel drums, wooden box, cylinder, etc.)			
21	CAPACITY OR WEIGHT PER UNIT (55 gallons, 65 lbs., etc.)			
22	NUMBER OF PACKAGES FROM WHICH MATERIAL ESCAPED			
23	NUMBER OF PACKAGES OF SAME TYPE IN SHIPMENT			
24	DOT SPECIFICATION NUMBER(S) ON PACKAGES (21P, 17E, 3AA, etc., or none)			
25	SHOW ALL OTHER DOT PACKAGING MARKINGS (Part 178)			
26	NAME, SYMBOL, OR REGISTRATION NUMBER OF PACKAGING MANUFACTURER			
27	SHOW SERIAL NUMBER OF CYLINDERS, CARGO TANKS, TANK CARS, PORTABLE TANKS			
28	TYPE DOT LABEL(S) APPLIED			
29	IF RECONDITIONED OR REQUALIFIED, SHOW	A	REGISTRATION NO. OR SYMBOL	
		B	DATE OF LAST TEST OF INSPECTION	
30	IF SHIPMENT IS UNDER DOT OR USCG SPECIAL PERMIT OR EXEMPTION, ENTER PERMIT OR EXEMPTION NO.			
H REMARKS - Describe essential facts of incident including but not limited to defects, damage, probable cause, stowage, action taken at the time discovered, and action taken to prevent future incidents. Include any recommendations to improve packaging, handling, or transportation of hazardous materials. Photographs and diagrams should be submitted when necessary for clarification.				
31. NAME OF PERSON PREPARING REPORT (Type or print)			32. SIGNATURE	
33. TELEPHONE NO. (Include Area Code)			34. DATE REPORT PREPARED	

Reverse of Form DOT F 5800.1 (10-70)

BILLING CODE 4910-60-C

**List of Subjects in 49 CFR Part 171**

Hazardous materials transportation, incident reporting.

It is requested that persons who desire to present oral comments at the public hearing notify Mr. Nalevanko or Mr. Abis by letter or telephone before April 30, 1984.

**Note.**—The Materials Transportation Bureau has determined that this document will not result in a significant regulation under DOT's regulatory policy and procedures (44 FR 11034). A preliminary economic evaluation of several alternatives is available for review in the docket.

(49 U.S.C. 1804, 1806; 49 CFR 1.53, App. A to Part 1 and paragraph (a)(4) of App. A to Part 106)

Issued in Washington, D.C., on March 12, 1984.

Alan I. Roberts,

Associate Director for Hazardous, Materials Regulation, Materials Transportation Bureau.

(FR Doc. 84-7028 Filed 3-15-84; 8:45 am)

BILLING CODE 4910-60-M

**49 CFR Part 172**

[Docket No. HM-126C; Notice 84-2]

**Required Use Of Emergency Response Guidebooks and Material Safety Data Sheets**

**AGENCY:** Materials Transportation Bureau (MTB), Research and Special Programs Administration, DOT.

**ACTION:** Advance Notice of Proposed Rulemaking and Notice of Public Hearing.

**SUMMARY:** This Notice solicits comments on the potential benefits and consequences of required use of Emergency Response Guidebooks (ERG) and/or Material Safety Data Sheets (MSDS's) to communicate information on the hazards of materials while they are moving in commerce. This solicitation is intended not only to address emergency situations involving significant discharges of hazardous materials, but what must be known about them when they are present in transport vehicles (including vessels and aircraft), and facilities associated with transportation such as terminals, piers, warehouses and other places where hazardous materials may be kept during the course of transportation.

**DATES:** A public hearing pertaining to the matters raised by this notice will be held on May 2, 1984, from 9:30 a.m. to 5:00 p.m. in room 2230 of the Nassif Building, 400 Seventh Street, SW., Washington, D.C. 20590. Interested persons are invited to participate in the public hearing. The closing date for

submission of written comments is June 26, 1984.

**ADDRESS:** Address comments to: Dockets Branch, Materials Transportation Bureau, U.S. Department of Transportation, Washington, D.C. 20590. Comments should identify the docket and be submitted, if possible, in five copies. The Dockets Branch is located in Room 8426 of the Nassif Building, 400 Seventh Street, SW., Washington, D.C. 20590. Office hours are 8:30 a.m. to 5:00 p.m., Monday through Friday.

**FOR FURTHER INFORMATION CONTACT:** Lee E. Metcalfe, Chief, Regulations Development Branch, Standards Division, Office of Hazardous Materials Regulation, Materials Transportation Bureau, Department of Transportation, 400 Seventh Street, SW., Washington, D.C. 20590; (202) 426-2075.

**SUPPLEMENTARY INFORMATION:** The National Transportation Safety Board (NTSB) has recommended that the Department of Transportation determine, by mode of transportation, the feasibility of requiring comprehensive product-specific emergency response information such as MSDS's for hazardous materials moving in bulk quantities. The American Trucking Associations, Inc. (ATA) has petitioned MTB for a rule requiring placement of Emergency Response Guidebooks in certain transportation facilities. Comments that relate to the ATA petition have been received from other parties. This notice solicits comments on the potential benefits and consequences of required use of the ERG and/or MSDS's to communicate information on the hazards of materials while they are moving in commerce.

This notice contains a substantial amount of material that is directly quoted. Primary sources of the quoted material are as follows:

**NTSB**—National Transportation Safety Board, 800 Independence Avenue, SW., Washington, D.C. 20594, James E. Burnett, Chairman

**ATA**—American Trucking Associations, Inc., 1616 P Street, NW., Washington, D.C. 20036, Robert A. Hirsch, Attorney and Richard M. Doyle, Hazardous Materials Specialist

**IBT**—International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers of America, 25 Louisiana Avenue, NW., Washington, D.C. 20001, R. V. Durham, Director, Department of Safety and Health

**WTA**—Wyoming Trucking Association, Inc., 109 Rancho Avenue, Casper, Wyoming 82602, Larry E. Meredith, Managing Director.

The following are also referenced in this notice:

**CIS**—NIH/EPA Chemical Information System, CIS User Support Group, Computer Sciences Corporation, P.O. Box 2227, Falls Church, VA 22042, Katherine Noble, Project Manager

**CHEMTREC**—Chemical Transportation Emergency Center, Chemical Manufacturers Association, 2501 M Street, NW., Washington, D.C. 20037, Joe J. Mayhew, Director

**NFPA**—National Fire Protection Association, Batterymarch Park, Quincy, MA 02269, Robert W. Grant, President

**AAR**—Association of American Railroads, Washington, D.C., Thomas Phemister, Director, Bureau of Explosives

**ERG**—Emergency Response Guidebook, Materials Transportation Bureau, Research and Special Programs Administration, U.S. Department of Transportation, Washington, D.C. 20590, Alan I. Roberts, ERG Project Manager

As background to its Safety Recommendation I-83-2, issued November 29, 1983, NTSB stated the following:

\* \* \* \* \*

About 11:00 a.m., e.s.t., on October 13, 1982, an eastbound tractor/cargo-tank semitrailer, owned and operated by Matlack, Incorporated, overturned when its driver took evasive action to avoid a head-on collision with a westbound pickup truck with another pickup truck in tow that crossed the centerline on State Route 299 approximately one-fourth mile west of Odessa, Delaware. The tank-trailer contained 5,600 gallons of divinylbenzene (DVB), 150 gallons of which leaked from the tank through a clean-out cup and a pressure relief device in the dome. As a result of the accident, five persons were treated for injuries at a local hospital; four (including the two Matlack drivers) were released and one was admitted for further treatment. In addition, 48 emergency response persons were treated and released for respiratory problems and skin rashes associated with exposure to the DVB.

Police officers were notified of a highway accident but were not informed that a hazardous material was involved. Upon arrival, police and ambulance crews devoted their activities to site security and first-aid to the crash victims.

The first arriving police officers reviewed the shipping papers and then returned them to the driver. The shipping papers described the cargo as "5,600 gallons of COMBUSTIBLE LIQUID, not otherwise specified (n.o.s.) (Divinylbenzene, 55, Inhibited) NA 1993." The truck was properly placarded in accordance with Department of Transportation regulations.

Approximately 100 emergency response personnel responded to the accident, but none of them had either previous experience

or formal training for handling a hazardous materials transportation accident.

About 1 hour after the crash, emergency response persons began complaining of respiratory and skin problems, and 48 of them were evacuated from the accident site and taken to a hospital for treatment, including the police officers who initially examined the cargo's shipping papers. About the same time, Matlack's drivers were also transported to a hospital and carried the shipping papers with them.

The emergency response personnel at the site knew the name of the cargo, but initially were unable to obtain information on its potential hazards and on the emergency response procedures to follow. When Matlack officials arrived on-scene and discovered that the shipping papers were not in the truck cab, a police official called the hospital where the drivers were being treated to obtain a verbatim reading of the papers. The papers confirmed the name of the cargo, but they did not contain emergency response guidance. The hospital treating the 48 emergency response persons did not have medical treatment information on DVB and substituted the medical treatment prescribed for benzene exposure.

The primary, on-scene reference material on hazardous materials was the *Hazardous Materials Emergency Response Guidebook* (Guidebook) 1980 edition, published by the Materials Transportation Bureau, Research and Special Programs Administration, U.S. Department of Transportation. Divinylbenzene is not one of the hazardous materials listed by name in the Guidebook.

Witnesses stated that emergency personnel looked for divinylbenzene in the Guidebook and, upon discovering that it was not listed, followed the response guidelines prescribed for divinyl ether—the only Guidebook entry with the term "divinyl." The entry for divinyl ether refers the reader to Guide 30, which first describes the material as a poison which may be fatal through inhalation, oral intake, or skin absorption, and second, capable of producing a spreading, flammable vapor. Information contained on the truck's placards (I.D. #1993, U.N. hazard class #3, and a flame symbol over a red background) directs the emergency response personnel to Guide 26 in the Guidebook; however, witnesses reported that the placards, although undamaged and unobscured, were not used to identify the cargo during the early stages of the incident. The appropriate guide, #26, first describes the various commodities in this group, including DVB, as capable of burning, and second, of producing vapors which may cause dizziness or suffocation as well as skin and eye irritation. The difference in the primary risk described in the two guides would explain the limited caution exercised by emergency response personnel.

The absence of shipping papers, the failure to observe placards, and the misuse or misunderstanding of the *Hazardous Materials Emergency Response Guidebook* reportedly combined to increase uncertainty among public officials, to protract the incident both in time and scope, and to lead to a reduced level of cooperation between emergency response personnel and carrier representatives. The lack of experience and

training of those responding to this accident in handling hazardous materials and the lack of emergency response information specific to the transported hazardous material are by no means unique in highway accidents throughout the Nation.

Progress has been made over the last decade in providing information to emergency response groups on hazardous materials involved in accidents; however, critical information available to first arriving emergency personnel is still limited in many respects, especially for n.o.s. products. The Department of Transportation regulations require that hazardous materials shipments be placarded and accompanied by shipping documents. In addition, the Department has expended considerable time and effort in developing, updating, and disseminating nearly one-half million copies of its *Hazardous Materials Emergency Response Guidebook* for use by emergency response personnel. However, this Guidebook (for sound practical reasons) and the required shipping documents lack physical property data, medical treatment guidance, environmental precautions, and detailed hazard conditions which are specific to the commodity in transit. These data sources give emergency responders general information on the potential hazards during the first 20-30 minutes into the accident. In most cases, however, additional references must be identified, quickly accessed, and used to determine the hazards and remedies for the specific commodity being transported.

Specific emergency guidance information is often not readily available when n.o.s. shipments are involved in accidents. For example, the I.D. number on the placard in this incident was "1993" which identifies divinylbenzene also applies to 17 other commodities or groups of commodities listed in the tables of 49 CFR 172. In addition, n.o.s. commodities are less likely to be included in commonly used emergency response guides than are specified commodities. Divinylbenzene, for example, in addition to not being listed in DOT's *Hazardous Materials Emergency Response Guidebook*, is not listed in the U.S. Coast Guard's *Chemical Hazards Response Information System* (CHRIS) manual, the Association of American Railroad's *Emergency Handling of Hazardous Materials in Surface Transportation Guide*, or the National Institute for Occupational Safety and Health/Occupational Safety and Health Administration (NIOSH/OSHA) "Pocket Guide to Chemical Hazards"—some of the most widely used guides. Divinylbenzene is listed in the *Fire Protection Guide on Hazardous Materials*, published by the National Fire Protection Association.

The Safety Board is aware that the development and distribution to emergency responders of an all purpose data sheet for every hazardous material subject to transportation would be a formidable and expensive task. Fortunately, information of this type already exists for most chemicals manufactured in this country. One source is the Material Safety Data Sheet which, in two pages, provides the manufacturer's name, physical property data, medical treatment, fire and explosion hazards, environmental

protection guidance, protective measures, and other hazard information—all specific to the chemical in question. The OSHA recommends that a Material Safety Data Sheet be available at the workplace for each hazardous material which is handled there. An OSHA official reported that it is "rare" to find a manufacturing or shipping facility which does not follow this recommendation. The Safety Board is also aware that these documents are commercially available from a variety of sources. Moreover, one commercial service collects chemical and protective action data from a variety of government and industry sources and provides hard-copy information via a telephone-computer link to subscribers of the service.

The product-specific information available from such sources would be an asset to emergency response personnel if it were to accompany the shipping papers. Such information is widely used and readily available to shippers and manufacturers and could be supplied by carriers at a minimal cost per shipment. The Safety Board believes that use of this type of information as a part of the hazardous materials shipping documents which greatly benefit the effective handling of emergencies involving bulk shipments of hazardous materials. The ranking emergency response official at the Odessa incident obtained a divinylbenzene Materials Safety Data Worksheet on the second day of the emergency. According to the official, had the data sheet been available at the outset, considerable time would have been saved in identifying the cargo, the health effects from exposure to the hazardous materials, and the type of emergency activities necessary to respond to the accident.

Therefore, the National Transportation Safety Board recommends that the U.S. Department of Transportation, Research and Special Programs Administration: Determine, by mode of transportation, the feasibility of requiring comprehensive product-specific emergency response information such as Materials Safety Data Sheets, to be appended to shipping documents for hazardous materials transported in bulk quantities, giving particular attention to the early emergency response problems posed by n.o.s. commodities in transit. For those modes of transportation for which a positive determination results, incorporate necessary requirements into Title 49 of the Code of Federal Regulations. (Class 11, Priority Action) (I-83-2)

The following basic health threat information is stated for divinylbenzene in NFPA's *Fire Protection Guide on Hazardous Materials* (NFPA 49), Seventh Edition: LIFE HAZARD—Moderately toxic by inhalation. Eye and respiratory irritant. Effect on skin unknown but probably little, if any.

The following basic health threat information is taken from the Material Safety Data Sheet prepared by the manufacturer of the divinylbenzene involved in the accident referenced by

the NTSB: TOXICITY—Moderately toxic by inhalation. Irritating to eyes and respiratory tract. Effect on skin unknown, but considered to be negligible.

The following basic health threat information is taken from Guide 26 of the 1980 Emergency Response Guidebook (DOT-P 5800.2): HEALTH HAZARDS—Vapors may cause dizziness or suffocation. Contact may irritate or burn skin and eyes. Fire may produce irritating or poisonous gases.

The following is the initial information on the basic health threat of divinylbenzene that is provided to a caller by CHEMTREC: Inhalation of vapors can cause irritation to eyes and respiratory tract. Contact with liquid can irritate skin and eyes.

The following is the basic health threat data for divinylbenzene contained in the CIS system: DIRECT CONTACT—Potentially [irritating] With Prolonged Contact Skin, Eyes.

GENERAL SENSATION—Possible Dizziness Or Drowsiness From Vapors. Mild Eye Irritation But No Corneal Damage. Disagreeable Odor. ACUTE HAZARD LEVEL—Moderate Inhalative Toxicant. CHRONIC HAZARD LEVEL—Moderate Inhalation Hazard When Exposed Chronically At Sublethal Concentrations. Prolonged Skin Contact May Cause Irritation. DEGREE OF HAZARD TO PUBLIC HEALTH—Moderated Inhalative Hazard From Both Acute And Chronic Exposures. 1.5-2 Cupsful Estimated Lethal Dose to Man [by ingestion].

By letter dated October 26, 1983, ATA petitioned for amendment to the Hazardous Materials Regulations as follows:

Pursuant to the provisions of 49 CFR 106.31, ATA hereby petitions U.S. Department of Transportation (DOT) to require, by rule, motor carriers involved in the transportation of hazardous materials to maintain a copy of the Emergency Response Guidebook (Guidebook), DOT P5800.2, at each motor carrier facility where hazardous materials shipments are loaded or unloaded from vehicles.

In its introduction, the Guidebook explains that it "was developed for use by firefighters, police and other emergency response officials as a guide for initial actions to be taken to protect themselves and the public when . . . hand[ling] incidents involving hazardous materials." Although the Guidebook was designed primarily for use at the location of incidents occurring on highways or on railroads, the introduction goes on to explain DOT's belief that the Guidebook should also be of value in handling incidents occurring at terminal facilities. The motor carrier industry concurs.

Without question, the Guidebook provides essential information about each of the

materials classified by DOT as hazardous. This information is set forth in the Guidebook in a comprehensive, yet efficient and practical format. The Guidebook transforms the DOT's numerical hazardous (sic) identification system into an effective emergency response system, by providing information that can be quickly located, easily understood, and utilized by any response personnel in any emergency.

Experience has shown that the majority of hazardous materials incidents in the motor carrier industry have occurred at terminal locations; that incidents, in general, occur infrequently; and, that most of these have involved minor spills. Nonetheless, the benefits which emergency response personnel have realized at highway and rail incidents by using the Guidebook—a fact recently testified to by the International Association of Fire Chief<sup>1</sup>—should be no less great for incidents occurring at terminals. The Guidebook should prove invaluable during the initial phases of incident response, and it should facilitate both prompt and effective first aid to any terminal worker who may accidentally come into contact with a hazardous material.

At present, many motor carriers have already taken the initiative by voluntarily making the Guidebook available to their terminal workers. However, a DOT requirement that it be made available at all terminal locations will be of industry-wide significance, benefiting the public at the same time.

The DOT's promulgation of this rule will address another industry concern as well. Currently, a growing number of jurisdictions have already required, or are considering requiring, motor carriers to make material safety data sheets available at their terminals.

The necessity that motor carriers maintain and make available a material safety data sheet for each hazardous material that may in the course of a year pass through their terminals poses a substantial burden upon carriers. It does so without realizing benefits in addition to those which the Guidebook already can achieve. The essential emergency response information, and first aid and health risk information contained in each is virtually the same. However, the contents and format of material safety data sheets is not standardized. It can and, indeed, does vary with each manufacturer preparing one. Further, not every chemical manufacturer currently prepares data sheets for its products, nor is a data sheet prepared for every material manufactured. In addition, most data sheets are keyed to the product's trade name rather than to the DOT's proper shipping name. When it is considered that the motor carrier workers, for whom the material safety data sheets are purportedly intended, are already familiar with the DOT proper shipping name, the placarding and labeling requirements, and all of the other relevant DOT regulations, it seems clear that the material safety data sheets would not be

nearly as functional as the Guidebook, especially in an emergency setting. At the same time, the noninclusion of highly technical data in the Guidebook—such as freezing and boiling points; vapor density; vapor pressure; specific gravity; and viscosity—makes the Guidebook more suitable for effective use by lay persons.

Accordingly we urge DOT to adopt this proposed regulations, and that it rule as inconsistent, or otherwise prohibit, the requirements of State and local governments that motor carriers must maintain and make available at their terminal locations material safety data sheets or similar informational guides (excluding the Guidebook) for hazardous materials being transported in commerce.

By letter dated November 7, 1983, ATA supplemented its petition as follows:

On October 26, 1983, American Trucking Associations, Inc. (ATA) petitioned the Materials Transportation Bureau (MTB) regarding the DOT's Emergency Response Guidebook. We asked MTB to adopt a rule requiring "motor carriers involved in the transportation of hazardous materials to maintain a copy of the . . . Guidebook . . . at each motor carrier facility where [such] shipments are loaded or unloaded from vehicles," and to "rule as inconsistent, or otherwise prohibit, the requirements of State and local governments that motor carriers must maintain and make available at their terminal locations material safety data sheets or similar informational guides (excluding the Guidebook) for hazardous materials being transported in commerce."

The purpose of this letter is to supplement our October 26th petition, by clarifying the scope of the relief we requested therein.

As we discussed in our petition, a growing number of State and local governments are requiring that motor carriers maintain and make available to their terminal workers specific information pertaining to chemical and physical properties of and emergency response and first aid information for each hazardous material motor carriers transport. Generally, this information is being required of carriers in the form of a "material safety data sheet."

Pursuant to these State and local laws, a motor carrier's more of several enumerated activities. These activities have included: "transporting"; "distributing"; and, "handling." Additionally, many jurisdictions also regulate "storage."

Without question, motor carriers must perform one or a combination of these activities ("transport", "distribute", "handle") in the normal course of transporting hazardous materials in commerce. Semantics notwithstanding, as a practical matter, such activities (including loading and unloading) embrace the integral functions of a transportation movement.

For the same reason such temporary stoppages in transit as the coming to rest of a container (non-bulk) of a hazardous material in a carrier's terminal while it awaits loading

<sup>1</sup> Proposed Amendments to the Hazardous Materials Transportation Act: Hearing on S. 1108, Title IV, Before the Senate Committee on Commerce, Science and Transportation, 96th Cong., 1st Sess. (1983).

into a vehicle, or the temporary parking in a carrier's terminal area of a fully or partially loaded tank truck prior to its outbound movement should be defined as "transportation." As such, both the activity and the location where they occur should be subject to the Department of Transportation's jurisdiction. These types of temporary cessations in the transportation movement should not be classified as "storage."<sup>1</sup>

We want to emphasize that, in petitioning for this rule, the motor carrier industry's intent is not to avoid its responsibility to provide pertinent safety information concerning hazardous materials to its workers. We believe, however, that such information, covering the host of DOT-regulated hazardous materials, is already available through the Guidebook, where it is provided in a format which is provably more effective and efficient than that of material safety data sheets.

\* \* \* \* \*

By letter dated December 29, 1983, WTA stated the following:

\* \* \* \* \*

The Wyoming Trucking Association, Inc. endorses the petition filed with your Department by the American Trucking Association, Inc., to require motor carriers involved in the transportation of hazardous materials to maintain a copy of the emergency response guidebook at each facility where hazardous materials are loaded or unloaded from vehicles.

The ATA petition requests that the DOT pre-empt state and local requirements for material data sheets.

Wyoming has many points where hazardous materials are loaded and unloaded, but as a bridge state many more loads cross with closed doors.

\* \* \* \* \*

By letter dated January 27, 1984, the acting Chief Counsel, Research and Special Programs Administration (RSPA) stated the following in response to the WTA letter:

\* \* \* \* \*

As the ATA notes in its petition, and as you reiterate in your letter, one purpose of such a requirement is to overcome or forestall the imposition by state or local governments of requirements that motor carriers maintain material safety data sheets for each hazardous material received or shipped at each terminal.

In accepting your letter, and docketing it as a comment on the ATA petition, I wish to point out that the acceptance of the ATA petition, or any subsequent rulemaking arising out of it, would not in and of itself represent the preemption of any current or future state or local requirement. Under provision of the Hazardous Materials Transportation Act (HMTA) (49 U.S.C. 1812) and the Regulations of the MTB (49 CFR

107.201-107.225), the preemption of a state or local requirement occurs upon a finding that the requirement is inconsistent with the HMTA or a regulation issued thereunder. The administrative process (or, if a party challenging the state or local requirement elects, the judicial process) is separate and distinct from the rulemaking process invoked by the ATA petition. Consequently, the question of the preemption of state and local requirements mandating the use of safety data sheets, would not be relevant to any rulemaking action that might arise from the ATA petition.

\* \* \* \* \*

By letter dated January 13, 1984, the IBT stated the following:

\* \* \* \* \*

It has come to our attention that the American Trucking Association (ATA) petitioned the Materials Transportation Bureau (MTB) on October 26, 1983, to require motor carriers involved in the transportation of hazardous materials to maintain a copy of the DOT Emergency Response Guidebook at each facility where hazardous shipments are loaded and unloaded. In its petition (P-922), ATA requested that the DOT requirement preempt state and local requirements for Material Safety Data Sheets (MSDS).

While we support the effort to require motor carriers to maintain copies of the Emergency Response Guidebook, we are concerned about DOT preemption of state and local laws requiring the maintenance of MSDS at transportation facilities. We believe that a DOT regulation requiring the use of the guidebook cannot preempt a state or local law requiring a MSDS because each document provides significantly different information, and therefore a different benefit, to employees involved in the transportation of hazardous materials.

The DOT Emergency Response Guidebook was developed in 1980 for use during the initial stages of a transportation emergency. The guidebook classifies hazardous materials by shipping name and provides acute health hazard information. While MSDS do offer information on acute health hazards and emergency action, unlike the DOT guidebook, however, MSDS provide information on chronic and long latency health effects from exposure to a hazardous material. The differences between the Guidebook and the MSDS can best be illustrated by examining the treatment of a particular hazardous material, benzene.

Benzene solvent is produced in billion gallon quantities per year. Scientific data strongly suggest that benzene is a human carcinogen. The DOT guidebook lists the health effects of benzene in terms of acute health effects. The guidebook states that benzene: "Vapors may cause dizziness and suffocation. Contact may irritate or burn skin and eyes. Fire may produce irritating or poisonous gases. Runoff from fire control or dilution may cause pollution".

The chronic or long latency health effects associated with benzene exposure are not mentioned in the DOT handbook.

Similar to the guidebook, an MSDS for benzene would note the acute effects linked to benzene exposure. In contrast, however,

an MSDS would describe chronic and long latency effects of benzene exposure in terms of leukemia, lymphatic and hematopoietic cancer. We believe that workers transporting hazardous materials have a right to be informed of the chronic health effects associated with exposure to shipped materials as well as the acute health effects. The DOT guidebook alone does not offer complete health hazard information.

In addition to the discrepancy between the guidebook and the MSDS in terms of the completeness of chronic and long latency health effects information, the documents differ in their treatment of chemical mixtures. MSDS generally include health hazard information on all chemicals present in concentrations greater than 1% in a hazardous chemical mixture. In contrast, the guidebook provides health effects information for the major constituent of a chemical mixture, leaving the other minor constituents unnamed and unaddressed. We believe that the health effects associated with exposure to all constituents of a chemical mixture should be made known to employees transporting hazardous materials. This can only be accomplished through the use of an MSDS.

In summary, MSDS generally provide more thorough health hazard information in terms of chronic health effects and chemical mixture information than the DOT guidebook. On balance, the DOT guidebook is particularly useful in emergency incidents. Since the documents are useful for different purposes, we feel it is inappropriate to substitute the guidebook for an MSDS. Instead, we recommend that the shipper be required to maintain both the guidebook and MSDS at all facilities involved in the transportation of hazardous materials. Clearly, the benefits of employee access to complete health hazard information on hazardous materials in transportation outweigh any burden placed on the carrier to obtain and maintain the guidebook and MSDS documents, documents readily available from DOT and chemical manufacturers/shippers, respectively.

\* \* \* \* \*

In its comments on proposals made under Docket HM-126A (44 FR 32972; June 7, 1979), the IBT stated the following:

\* \* \* \* \*

More than any other group, Teamster members bear the brunt of the inherent dangers involved in the transportation of hazardous materials. Teamster members package, ship, transport, and receive a major share of all hazardous materials moving in interstate (and intrastate) commerce. Transportation workers stand alone as the vital first link in dealing with hazardous materials incidents. Their actions in the first minutes following an incident may well determine if that incident will remain minor or result in a major catastrophe.

This NPRM recognizes, but does not act upon the fact that transportation workers must be adequately prepared and equipped with the knowledge necessary to prevent this type of catastrophe. If the proposed

<sup>1</sup> The United States Environmental Protection Agency agrees with this proper distinction between "transportation" and "storage." Pursuant to its regulation, 40 CFR 263.12, a carrier's holding of a waste in a specification container for a period of ten days or less at any one location does not constitute storage.

identification system was accompanied by an adequately prepared, and evenly distributed, "Emergency Response Manual," it would go far in improving the emergency response capabilities at all levels of response, including the initial "person at the scene" (i.e., the transportation worker), the responding emergency service personnel, and the special assistance personnel who may be required.

A properly distributed "Emergency Response Manual" would also go far in correcting one of the most neglected aspects of hazardous materials transportation, the health and safety of the transportation workers themselves. Before transportation workers can protect other potential victims, they must first be able to protect themselves. This requires a knowledge of the nature of the hazard and explicit information on how to respond in those first critical minutes. An uninformed, incapacitated, or dead transportation worker will be of little or no use to other potential victims or later, to the arriving emergency service personnel.

\* \* \* \* \*

It is imperative that the proposed identification system be released only if it is in conjunction with a cross-referenced "number vs. technical name" table, and only if MTB can assure that all likely recipients of emergency calls have such a table at hand. A more practical alternative, and one much more appropriate to the overall purpose of the system, namely, improved emergency response capability, would be the concurrent release and distribution of the cross-referenced "Emergency Response Manual," which MTB has already largely developed. Furthermore, this approach would be more cost-effective in that the necessary cross-referenced table would not have to be published and distributed twice (i.e., once with the number identification rule, and once with the future "Manual").

Acknowledged throughout the text of this NPRM [HM-126] is the fact that the first minutes of a hazardous materials incident are the most critical. Also undisputed is the fact that the actions of the transportation worker at the scene in those critical minutes may mean the difference between a minor incident and a major catastrophe. Based on this, we most strongly urge that distribution of the Manual to certain personnel be made mandatory in the final rule. Mandatory distribution might be achieved in the following manner (for trucking personnel):

1. Operators of vehicles transporting hazardous materials:
  - a. Single Commodity—The driver would receive only a single "response guide" from the Manual (with the emergency phone number) for the single type of hazardous material being transported.
  - b. Mixed Commodity—The driver would receive "response guides" from the Manual for any type of hazardous material which he may haul as well as the "identification number vs. guide number" cross-reference table at the front of the Manual. A driver would not need the lengthy alphabetical listings of all the technical names versus the identification and guide numbers.
2. Shipping, receiving, the warehouse personnel—copies of the *full* Manual, with

cross-referenced lists and all the Emergency Response Guides, would be required in central locations and at any office likely to receive a hazardous materials emergency call.

Similar requirements would, of course, be required for other modes of transportation and specialist in those industries should be consulted as to specific needs.

\* \* \* \* \*

The material quoted above is provided as background to this notice which is a solicitation of facts and viewpoints rather than a proposal to take any specific action. MTB solicits comment on the following:

1. What material specific information is provided by a MSDS that would mitigate the potential consequences of a discharge beyond the type of information provided by the ERG and CHEMTREC, and how quickly would that information be needed? In commenting, please take into account that the information on file at CHEMTREC is based on MSDSs provided by manufacturers and that CHEMTREC can provide information that is not contained in the ERG e.g., flash-point, boiling point, flammable limits, and vapor density. Also, CHEMTREC has access to shippers and the CIS for more detailed information on hazardous materials. If comments are presented concerning the value of TLV (threshold limit value) data, it is requested that supporting information be provided in support of how such data (TWA—time weighted average; STEL—short-term exposure limit; C—ceiling) can be effectively applied in the transportation environment. For example, what type of monitoring equipment could be reliably used to make an assessment of a spill area? Should MTB imply that confidence may be placed in use of such equipment? Up to the present time, it has been MTB's opinion that this approach would not be appropriate; therefore, current ERG guidance for any cargo (not only regulated hazardous materials) is "Move And Keep People Away From Incident Scene; Do Not Walk Into Or Touch Any Spilled Material; Avoid Inhaling Fumes, Smoke and Vapors Even If No Hazardous Materials Are Involved; Do Not Assume That Gases Or Vapors Are Harmless Because Of Lack Of Smell".
2. (a) Should DOT consider discontinuing distribution of the ERG in favor of MSDSs accompanying shipments of hazardous materials? (b) Should consideration of MSDSs be limited to bulk shipments as suggested by NTSB? In commenting, please consider the possibility of undesirable results in applying both systems to transportation, e.g., the different

language contained in basic health threat information (as demonstrated above for divinylbenzene) as well as differing response information. In preparing for issuance of this notice, MTB reviewed 29 CFR 1915.97 relative to preparation of U.S. Department of Labor Form OSHA 20 and the Occupational Safety and Health Administration's (OSHA) final rule amending 29 CFR Part 1910 (48 FR 53280; November 25, 1983). The information specified for inclusion in MSDSs (§ 1910.1200(g)) does not require manufacturers and importers to use standard language for either the communication of risk or the mitigation of risk. To a significant degree, this is overcome by training (§ 1910.1200(h)) required to be given by employers in Standard Industrial Classification Codes 20 through 39. (c) To what extent could and should DOT rely on training of emergency response and transportation personnel in use of MSDS information rather than the ERG, taking into account that more than 180,000,000 shipments of hazardous materials are made annually in the United States?

3. If, following review of the comments on this notice, MTB decides to propose a mandatory placement of ERG's in transportation facilities: (a) How should MTB describe (define) those facilities in the regulations? (b) Should ERG's be required in vehicles used to transport hazardous materials, as suggested by IBT? (c) What would be the means of acquisition of the ERG's? (d) How much time should be provided for acquisition and implementation? (e) Could such a requirement be implemented without having an effect on necessary revisions and updates of the ERG? (f) In order for MTB to assess the cost of such a program in a regulatory analysis, how many vehicles (including rail), vessels, aircraft, and terminal facilities would be subject to such a requirement (taking into account the last quoted paragraph of IBT's comments above)? The following information is provided for background: There were 750,000 copies of the 1980 ERG (DOT 5800.2) delivered, without charge, by MTB to emergency response (and associated) organizations between 1981 and 1984 and more than 200,000 obtained from commercial sources. More than 600,000 copies of the 1984 ERG (DOT 5800.3) have been distributed by MTB since December 1, 1983. While DOT's distribution costs have been less than \$1.00 per copy, the charge at the Government Printing Office (GPO) for the ERG was set at \$7.00 per copy. Four commercial sources of the ERG base their prices on quantities ordered. It is

contemplated that the ERG will be revised and redistributed at three year intervals if the program is continued following this proceeding.

4. (a) Is there another way to deal with ". . . emergency response problems posed by n.o.s. commodities . . ." as discussed by NTSB in Recommendation I-83-2? On May 22, 1980 MTB published a final rule under Docket HM-126B (preamble page—45 FR 34565) setting forth requirements for more specific identification of poisons, including those covered by n.o.s. entries in § 172.101. The purpose of the rule, which is set forth in § 172.203(k), is to make identification of poisons more specific for immediate response purposes. (b) Should MTB consider expanding the requirements to hazardous materials of all classes? Commenters should note that the present rule does not require the technical names of compounds or principal constituents if the entry on a shipping paper (in association with the n.o.s. entry coming from § 172.101) is a name in the NIOSH Registry (RTECS—Registry of Toxic Effects of Chemical Substances) which contains more than 59,000 substance entries. The reason for providing this option is the problem emergency response personnel could have in dealing with long and complex chemical names (with dozens of letters and numbers in some cases) and the fact that RTECS is a component of the NIH/EPA CIS computer system that may be accessed by CHEMTREC at any time specific identification of a material is necessary. At the time the rule was promulgated, MTB had determined that it was only essential for materials meeting the definition of a class B

poison (regardless of class precedence). Also, a different rule for identification of hazardous substances in mixtures was issued at the same time under Docket HM-145B. (c) What would be the burden of such a requirement? and (d), Can or should such a requirement be construed as deriving the same benefit as possession of a MSDS during transportation?

Commenters are not limited to responding to the questions raised above and may submit any facts and views consistent with the intent of this notice. In addition, commenters are encouraged to provide comments on "major rule" considerations under terms of Executive Order 12291, "significant rule" considerations under the DOT regulatory procedures (44 FR 11034), potential environmental impacts subject to the Environmental Policy Act, information collection burdens which must be reviewed under the Paperwork Reduction Act, and economic impact on small entities subject to the Regulatory Flexibility Act.

It is suggested (but not required) that commenters forward copies of their submissions in response to this notice, as appropriate, to the parties named above.

It is requested that each person who desires to present oral comments at the public hearing notify Mr. Metcalfe by letter or telephone before May 1, 1984.

#### List of Subjects in 49 CFR Part 172

Hazardous materials, Transportation, Communications.

(49 U.S.C. 1804, 49 CFR 1.53, App. A to Part 1 and paragraph (a)(4) of App. A to Part 106)

#### Special Note

Since it is expected that this notice will be widely disseminated by several organizations representing emergency services throughout the United States, I take this opportunity to emphasize an important point concerning use of the Emergency Response Guidebook (ERG). Included with NTSB's background to Recommendation I-83-2 is a discussion of the use of Guide 30 rather than Guide 26 in the ERG because the only entry with the term "divinyl" in the ERG was divinylether with a reference to Guide 30. Such a derivation process is contrary to the design and intent of the ERG and could result in serious misinformation and guidance concerning the hazard(s) of a material. On the first page of the ERG (DOT 5800.2) there is the following statement: "If the ID number or shipping name is not listed in this guidebook call CHEMTREC toll-free 800-424-9300." In fact, there are more than 50 references to CHEMTREC and its phone number in the ERG. However, CHEMTREC was not contacted by any emergency response personnel at the scene of the accident discussed above. In order to discourage use of the ERG without first reading the basic instructions for its use, MTB has placed "Read Instructions on First Page" conspicuously on the front cover of the 1984 ERG (DOT 5800.3).

Issued in Washington, D.C. on March 12, 1984.

Alan I. Roberts,

*Associate Director for Hazardous Materials Regulation, Materials Transportation Bureau.*

[FR Doc. 84-7023 Filed 3-15-84; 8:45 am]

BILLING CODE 4310-60-M

