



OHM Newsletter

Office of Hazardous Materials Operations

DEPARTMENT OF TRANSPORTATION / MATERIALS TRANSPORTATION BUREAU / WASHINGTON, D.C. 20590

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NOTICES AND AMENDMENTS PUBLISHED DURING MAY

- HM-74; Amendment Nos. 173-97, 178-39 (41 FR 18412 - 5/4/76), Inspection and Testing Requirements for Cylinders Manufactured Outside the United States. Effective date: May 30, 1976. (See following article regarding HM-74.)
- HM-22; Amendment No. 171-33 (41 FR 18656 - 5/6/76), Matter Incorporated by Reference. The purpose of this amendment is to update the reference to sections VIII (Division I) and IX of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code. Effective date: June 30, 1976.
- HM-109; Amendment Nos. 173-98, 179-16 (41 FR 21475 - 5/26/76), Tank Car Tank Head Shields. The purpose of these amendments is to prescribe more flexibility and clarity in the specifications for applying the head shields to DOT 112A and 114A tank car tanks, and provide for a change in tank car display so that cars with head shields will display a distinctive specification marking. Effective date: May 26, 1976, except that tank cars with head shields installed prior to May 26, 1976 need not be marked in accordance with the specification marking requirements of these amendments prior to August 1, 1976.

TRANSPORTATION USE LIMITATIONS FOR FILLED FOREIGN CYLINDERS

On May 4, 1976, the Materials Transportation Bureau amended the Department's Hazardous Materials Regulations by publishing in the Federal Register (41 FR 18412), Docket HM-74; Amendment Nos. 173-97, 178-39. This docket prescribes certain requirements for cylinders manufactured outside the United States.

During the five-year comment period, many comments were received stating that foreign produced cylinders marked either "ICC" or

Transportation Use Limitations for Filled Foreign Cylinders Cont.

"DOT" would be entering the country because of Docket HM-74.

For the benefit of those shippers, carriers, or other persons who are not fully acquainted with Docket HM-74, we believe it necessary to advise any person (user) involved in the transportation of a filled compressed gas cylinder that as of May 30, 1976, the Bureau has not issued any approvals for "manufacturers" or "independent inspectors" of foreign made cylinders. This means that any cylinder manufactured prior to May 30, 1976, in accordance with 49 CFR Part 178, must have been produced and inspected in the United States in accordance with the regulations, or if foreign produced, it must have been tested and the chemical analysis performed within the United States as well as manufactured and inspected in accordance with the regulations.

As of May 30, 1976, cylinders manufactured in foreign countries, including Canada or Mexico, must meet the requirements of 49 CFR Part 178 as amended by Docket HM-74. This means that any HIGH PRESSURE CYLINDER that required "independent inspection" under the regulations in effect prior to May 30, 1976, is not suitable for use in the United States if it was produced outside the United States. The Office of Hazardous Materials Operations is satisfied that prior to June 1, 1976 no foreign produced high pressure cylinder was (1) inspected during manufacture by a "disinterested inspector" that was approved by the Bureau of Explosives, and (2) was tested and had a chemical analysis performed within the United States.

LOW PRESSURE CYLINDERS produced outside the United States (prior to May 30, 1976) are authorized for use in the United States if the owner can establish that the cylinders were in fact made and inspected in accordance with the regulations in effect prior to May 30, 1976, including the fact that they were tested and the chemical analysis of the metal was made within the United States. Therefore, even if a low pressure cylinder is marked "DOT" or "ICC," it is not authorized for use in the United States if it was made outside the United States and the tests and chemical analyses were not performed within the United States. The test reports are the only valid proof of the correct manufacture, inspection, and testing of cylinders.

DOCKET HM-103/112 CHANGES AFFECTING RADIOACTIVE MATERIALS REGULATORY PROVISIONS

Although the regulatory changes in Docket HM-103/112 published April 15, 1976 (41 FR 15972) are extensive and numerous, those

Docket HM-103/112 Changes Affecting Radioactive Materials Regulatory Provisions Cont.

relating to radioactive materials are relatively few in number. As a matter of interest and convenience to shippers and carriers of radioactive material, the following summary of such changes may prove useful. The changes include:

1. A revision to the radiation dose rate criteria for the use of the Radioactive Yellow-II package label. Whereas, the previous limits were 0.5 mrem/hr at 3' (transport index) and surface dose rate of 10 mrem/hr, those limits have been raised to 1.0 mrem/hr at 3' and 50 mrem/hr at the package surface. (See § 172.403(c).)
2. A revision of the elements of information required for inclusion on the shipping paper description for radioactive materials shipments, including the addition of the transport index and the deletion of the requirement for listing the transport group. (See § 172.203(j).)
3. A revision of the proper shipping name listings for the generic, i.e., "n.o.s. or 'not otherwise specified'" listings for radioactive materials. (See § 172.101.)
4. New separate listings by name for enriched and non-enriched uranium hexafluoride, acknowledging its dual hazard properties of being both a radioactive and corrosive material. (See § 172.101.)
5. A revision of the vehicle placards for radioactive materials, adopting a diamond shape format for all modes, utilizing for the first time, the standard radiation symbol on the placard. (See § 172.556.)

SAFETY ANALYSIS

Safety analysis is a term which is used in a variety of academic design, and construction undertakings and can mean many things to different people. Safety analysis in the transportation of hazardous materials has meant to the Materials Transportation Bureau and its predecessors, the submission of certain test data, certified shipping experience, a considerable review by the Bureau's technical staff, comments by other interested parties,

Safety Analysis Cont.

and a final judgment on rule making or exemption. With the passage of Public Law 93-633 and with the increased complexity of the transportation requirements caused by other laws, such as, environmental and occupational safety and health related legislation, the time has come for a more formalized and structured safety analysis.

It is the intent of the Materials Transportation Bureau to undertake the task of formalizing, into a definite methodology and format, safety analyses which will be used as the basis for rule making and exemptions in its regulatory actions. It is visualized that these initial analyses will not be the probabilistic predictive mathematical model type assessments, but rather the pragmatic identification of transportation hazard situations with associated tests modeling each hazard category identified. The testing models are recognized as limited in their ability to completely assure similitude with actual field conditions. However, with the approach outlined, and experience gained from trying the use of these tests as they relate to different transportation hazard exposures, it is hoped that a more thorough understanding of the degree of safety provided through a regulation or by an exemption will be documented.

If results from any of the tests appear as though an unreasonable record of hazard would be encountered, then steps to ameliorate or minimize that situation from occurring in the actual transportation environment must be proposed and implemented by the interested party. In addition to the analysis, which applies to the normal transportation handling activities, consideration must also be given to the adverse situation which could happen during a credible transportation accident. The steps which could be taken to minimize casualties and loss of property, as well as damage to the environment from secondary hazards involving the hazardous material, should be included in the analysis. Once these data are assembled, and the analysis and recommendation is completed, then an effort at quantifying the level of safety or conversely the degree of risk will be considered by the Bureau. This should provide an assessment of the degree of safety of existing regulations which could be compared to proposed amendments and/or exemptions to those regulations.

During the next fiscal year, pilot projects will be undertaken with different rule making and/or exemption activities in which real field problems will be utilized to study and document what factors would constitute an appropriate safety analysis. It is intended that a notice in the Federal Register will be published when the staff develops a more complete understanding and creates documentation on the requirements for safety analysis.

PURCHASE AND USE OF USED CYLINDERS

Used cylinders are sold for various reasons, such as surplus inventory, cost of rehabilitation, sale of company, and as a service supplied by cylinder reconditioners. Depending on the purpose of sale, the bill of sale may describe the condition of the cylinders for accounting or liability purposes. The description of the cylinder condition does not relieve the purchaser from his obligation to comply with Title 49, Code of Federal Regulations.

Your attention is called to § 173.22, Shippers Responsibility; § 173.24 Standard Requirements for all Packages; § 173.28 Reuse of Containers; and in particular § 173.34, Qualification Maintenance and Use of Cylinders, as well as Part 178. (See page 1 HM-74 item.)

It is necessary that any user of cylinders, new or used, must assure himself that the cylinders are in accordance with Title 49, Code of Federal Regulations. Because the pedigree of used cylinders may sometimes be in doubt, it is the responsibility of the user to determine that the cylinders in fact are in compliance

ANHYDROUS AMMONIA CARGO TANK ACCIDENT, HOUSTON, TEXAS, MAY 11, 1976

The Materials Transportation Bureau sent a member of the Office of Hazardous Materials Operations to the accident scene in Houston, Texas on May 11, 1976.

As of June 1, 1976, six deaths have been reported as a result of the accident. The tractor-trailer ran off an elevated interchange ramp. The tractor and cargo tank struck separate support columns, rupturing the cargo tank which released its entire cargo of 38,829 pounds of anhydrous ammonia.

SPLASHES AND SPILLS FROM TANK CARS

From June 1973 through May 1976, 146 Hazardous Materials Incident (HMI) Reports have been submitted to this Office in which it was reported that cargo splashing from tank cars caused injuries to 182 persons.

The Department's Hazardous Materials Regulations require that the shipper determine that after loading, the tank is in proper condition for the safe transportation of the lading. Section 173.31(b)(3), (49 CFR) requires that closures be properly secured

Splashes and Spills From Tank Cars Cont.

and manway covers and outlet valve caps be made tight against leakage of vapor and liquid.

Most, if not all of the 182 injuries, would not have happened if these provisions had been strictly adhered to by the shipper.

Of all the reported tank car incidents, only 2 per cent were the result of derailments. Some of these derailments were catastrophic in nature tending to overshadow the many splashes and injuries caused by improper closure of tank car openings.

Increased emphasis must be placed by shippers on the elimination of such splashes and resultant injuries.

ATLANTA INTERMODAL SEMINAR - AUGUST 23-24, 1976

A 2-day intermodal seminar will be held on August 23-24, 1976 at the Sheraton Inn, Atlanta Airport. This seminar is part of a continuing series of such programs sponsored throughout the country by the Materials Transportation Bureau. It will be basic in nature and conducted on an "awareness basis." These programs are designed to assist shippers, carriers, freight forwarders, container manufacturers and others to better understand the regulations. Special attention will be given to the training requirements of all involved.

This seminar will follow the basic format of the Newark Seminars to be held in July. It will start with a general session covering the over-all intermodal regulations and will be followed by a series of concurrent workshops conducted by DOT representatives covering modal and specialized areas of interest. Checkin will begin at 7:30 a.m. with the seminar starting at 8:30 a.m.

ATLANTA WORKSHOP ON DOCKET HM-103/112 - AUGUST 25, 1976

A fourth workshop devoted to discussions of amendments published under Docket HM-103/112 will be held in Atlanta on August 25, 1976 from 8:30 a.m. - 3:00 p.m.

Although NO FEES are involved, pre-registration is necessary for both the Atlanta meetings and the previously announced Newark, New Jersey meetings to assure admittance since attendance will be limited. The Atlanta meetings will be held at:

Sheraton Inn -- Atlanta Airport
1325 Virginia Avenue
East Point, Georgia 30344
TELEPHONE: (404) 768-6660

REGISTRATION FORM

Name _____
Company _____ Address _____
City _____ State _____ Zip Code _____
Telephone No.: (Area Code _____) _____

INTERMODAL HAZARDOUS MATERIALS SEMINARS

I wish to attend the Hazardous Materials Seminar on:

Newark, N. J.

Atlanta, Ga.

July 19 & 20, 1976 _____

August 23 & 24, 1976 _____

July 22 & 23, 1976 _____

I am interested in attending workshops on the following subjects:

Air _____ Water _____ Radioactive Materials _____ Motor _____

Tank Trucks _____ Rail _____ Tank Cars _____ Packaging _____

Compliance _____ Training Requirements and Techniques _____

HM-103/112 NEW REGULATIONS SEMINARS

I wish to attend the HM-103/112 Seminar as checked below:

Newark, N. J.

Atlanta, Ga.

July 21, 1976

August 25, 1976

8:00 a.m. - 1:00 p.m. _____

8:30 - 3:00 p.m. _____

2:00 p.m. - 7:00 p.m. _____

Please submit a separate registration form for each registrant.
(You may reproduce this form if extra copies are needed.)

Mail this form to:

U. S. Department of Transportation
Materials Transportation Bureau
Office of Hazardous Materials Operations
2100 2nd St., S. W. MTH-30
Washington, D. C. 20590

The Secretary of Transportation has determined that publication of this periodical is necessary in the transaction of the public business required by law of this Department. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through November 30, 1976.
