OHM Newsletter

Office of Hazardous Materials

DEPARTMENT OF TRANSPORTATION / OFFICE OF THE SECRETARY / WASHINGTON, D.C. 20590

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NOTICES AND AMENDMENTS PUBLISHED DURING JUNE

HM-80; Amendment No. 173-68 (38 F.R. 16875). This amendment authorizes the use of non-DOT specification metal portable tanks similar to specification 53 or 56 until April 30, 1974 (§ 173.225 (b)(2) Note 1). This is an extension of the time (from August 30, 1973 to April 30, 1974) previously shown in Docket HM-80 published on January 15, 1973 (38 F.R. 1507).
NOTE: This amendment was inadvertently sent out on the mailing list on green paper instead of pink as used for amendments.

Notice of Special Permits issued or denied during June 1973 (38 F.R. 7/12/73).

TRANSPORTATION OF BLASTING CAPS WITH OTHER EXPLOSIVES

Amendment 177-22 promulgated under Docket No. HM-95 became mandatory on June 30, 1973. Several persons have asked if the amendment has any particular application to electric blasting caps. The new regulation applies to all kinds of blasting caps. Subparagraph (g)(1) of section 177.835 authorizes use of a DOT MC 201 container for any type of properly classed blasting cap. Subparagraph (2) of that section authorizes those caps that are packed and loaded in accordance with a method approved by the Department. The only approved method mentioned in the section refers to caps packed in packagings prescribed in § 173.66(g)--packagings for electric blasting caps--that are loaded into portable containers or separate compartments meeting the requirements set forth in IME Safety Library Publication No. 22. It applies to electric blasting caps only.

The only exception to the above is DOT Special Permit 5243 which authorizes Tailless MS Connectors (delay connectors which are described as blasting caps) to be shipped under the requirements for electric blasting caps.

CORROSIVE MATERIAL CLASSIFICATION--SKIN TESTING CRITERIA

There apparently exists considerable misunderstanding about the skin corrosive criteria as prescribed in Docket HM-57. To explain the reason for selection of these criteria and to clarify the application it may be useful to review the history of this rule making.

The Department's advance notice on health hazards published under Docket HM-51 in June of 1970 contained a definition for skin irritants specifying an average primary irritation score of 4 to 6 according to test procedures described in CFR 21, paragraph 191.11, by Department of Health, Education, and Welfare (HEW). The Board indicated in the same notice that a score of 6 or above would be covered separately under a corrosive classification. Numerous comments were received on this notice indicating that the prescribed test for reversible skin irritation was very unreliable and that those irritant materials should not be regulated since they would not represent any undue hazards under transportation conditions. After a careful consideration of these comments, the Board in its second advance notice of September 1971 eliminated the skin irritation classification from HM-51 and proposed to regulate only riot control gases (tear gases) under the irritant category.

Subsequent to this HM-51 notice, the Board published an advance notice on corrosive classification under Docket HM-57 in September 1970. In this notice, the Board proposed as corrosive criteria an average primary test score of 6 or higher according to the test procedures described in CFR 21, paragraph 191.11 of HEW.

Numerous comments were received, especially from the experts in the area of skin corrosion testing, recommending that the scoring system should be eliminated. Instead, it was recommended that the Department accept the corrosion definition described under CFR 21, paragraph 191.1(h) by HEW which states that "The corrosive substance is one that causes visible destruction or irreversible alterations in the tissue at the site of contact." It further states that a substance would be considered corrosive to the skin if, when tested on the intact skin of the rabbit by the technique described in paragraph 191.11, the structure of the tissue at the site of contact is destroyed or changed irreversibly. It was further pointed out by several commenters that a score of 6 means irritant and not

corrosive and does not indicate destruction or irreversible damage. Experts pointed out that the scoring system is unreliable and not applicable for regulatory purposes. In view of these comments, the Board revised its proposed rule making and, subsequently, published an amendment in HM-57 using exactly the same definition for corrosives as specified by HEW in CFR 21, paragraph 191.1(h) which, according to comments by one major organization, has proven to be practical for over nine years.

At this point, the history of HM-57 appeared to indicate to the Office of Hazardous Materials that we finally had arrived at a generally acceptable and practical definition for skin corrosion which also would not be in conflict with the HEW Regulations. Unfortunately, comments and inquiries being received by this Office after publication of the HM-57 amendment indicate that many parties have misinterpreted the prescribed definition and testing criteria. In spite of the history of the HM-57 docket, which should be well known, many are still using the scoring system for testing of their products and complain, for example, that material with the score of 5 or above is now classified as a corrosive and, according to their experience, does not present any undue hazard in transportation. It is distressing that even companies with experience in animal testing still submit data based on scoring tests. Our only explanation for this unfortunate discrepancy is that, apparently, the traffic and technical departments of various companies have not properly communicated on the history of the rule making. This is leading to frequent misinterpretation of the rule which, in turn, is resulting in considerable unnecessary and time consuming efforts both by our personnel as well as the interested parties.

It may be true that even the specified criteria of HEW without scoring may lead to a different interpretation of the test depending on the subjective opinion of the laboratory experimenter. However, it is felt that this Office must accept the basic definition and testing criteria established by HEW in the area of corrosives. If the procedures previously developed by HEW prove to be unsatisfactory, it should be our aim to improve them through joint cooperation. We are continuing to try to clarify the situation as much as possible and have several ideas which we are exploring to improve communications on what constitutes corrosiveness to skin according to the new definition in § 173.240.

INTERNATIONAL REGULATIONS

Following is a list of International Regulations and where they may be purchased:

"The International Carriage of Dangerous Goods by Road (ADR)"

"The International Regulations Concerning the Carriage of Dangerous Goods by Rail (RID)"

(Approximately $6.00 each.)

From: Her Majesty's Stationary Office
49 High Holborn
London, WC 1, England

"International Maritime Dangerous Goods Code"
(Volumes I, II, and III)

(Approximately $25.00 per set
Sales No. IMCO 1972.9 (E))

From: Inter-Governmental Maritime Consultative Organization
101-104 Piccadilly
London, WIV OAE, England

"IATA restricted articles regulations"
(16th edition)

($6.00 per copy)

From: International Air Transport Association
Post Office Box 315
1215 Geneva 15 Airport, Switzerland

"Transport of Dangerous Goods" - Volumes I, II, III, and IV)
($7.25 per set)

From: United Nations
Sales Section
New York, New York 10017

MONITORING OF REMOVABLE SURFACE CONTAMINATION ON RADIOACTIVE PACKAGES

Many questions have arisen over the past several years regarding the application of the regulatory limits for removable (non-fixed) surface contamination on radioactive materials packages as prescribed in 49 CFR § 173.397. In § 173.397 (a), the term "significant removable contamination" as defined and quantified is a modified version of the IAEA standard as defined in Marginal C-3.3 and Table IV, Annex I of the 1967 IAEA Transport Regulations, in that the 49 CFR limit is a specification for determination of external removable surface contamination based on activity measured on a "wipe" or "smear" from the surface. This limit was arbitrarily set at 10 per cent of the IAEA values for the activity on the surface itself. Most of the confusion and questions, however, which have arisen are with respect to the "averaging" of multiple "wipe" samples on surfaces. The IAEA standards clearly allow for "averaging" of contamination over 300 cm^2 of any part of the surface. 49 CFR § 173.397 is unclear, however, in specifying whether or not "averaging" of all wipe samples is allowable. It is the present opinion of OHM that "averaging" of wipe samples is only allowable over a specific smear area (100 cm^2 in the case of the U. S. Regulations or 300 cm^2 in the case of IAEA Regulations) and not allowable for all wipe samples taken.

In order to clarify the above situation, several changes to § 173.397 are expected to be issued in a notice of proposed rule making in the near future along with a number of other miscellaneous proposals relating to radioactive materials. With respect to removable contamination monitoring, two additional proposals are also contemplated. One of these will provide for somewhat higher levels of allowable removable surface contamination on packages in "full-load" or sole use shipments. The other would impose a requirement for monitoring of each transport vehicle for surface contamination after having been used for any "full-load" shipment of radioactive material, not just for bulk shipments of low specific activity radioactive materials as presently required by § 173.397(b).

CARRIERS AND SHIPPERS ASK HOW TO CLEAR THEIR RECORD

A number of carriers and shippers have inquired of the Department's Bureau of Motor Carrier Safety as to how they can "clear their record" following an inspection which reveals areas of noncompliance with the Hazardous Materials Regulations or the Motor Carrier Safety Regulations, or both.

A carrier or shipper of hazardous materials is obligated to comply with the regulations. When an inspection discloses that he has not accepted this responsibility, the record has been established, and it stands. It cannot be cleared by administrative action. However, when the carrier or shipper takes corrective measures, these can be made a matter of record also.

When the inspector completes his inspection, the appropriate carrier official should review the findings with the inspector to establish a clear understanding of the violations. He should then examine his own organization and determine why the violations occurred, and what steps are needed to eliminate these violations and prevent future violations. Next, he should take corrective action. Lastly, he should examine the results of these corrective actions for desired results.

Assuming that the corrective measures have been successful, he should then prepare a letter to the Motor Carrier Safety Inspector in his territory, with a copy to the Director, Bureau of Motor Carrier Safety, Federal Highway Administration, Washington, D. C. 20590, outlining the specific steps taken, and his evaluation of the results.

This letter is then filed with the report of the prior inspection and, until another inspection is made, it is evaluated together with the inspector's report whenever the company's compliance record is reviewed.

It should be pointed out that such a letter would not forestall any enforcement action initiated as a result of the inspection. However, if a follow-up inspection shows that the conditions noted remain unabated, this fact is considered in determining disposition of the case.

RECENT REVISIONS TO THE IAEA REGULATIONS

Single copies of a paper entitled "Recent Revisions to the IAEA Regulations for the Safe Transport of Radioactive Materials... What are They and What Impact Will They Have on U. S. Regulations?" are available upon request to the Office of Hazardous Materials. Requests should include either a self-addressed stamped envelope or a completed return mailing label. This paper was recently presented by an OHM staff member at the 18th Annual Meeting of the Health Physics Society.

W. J. Burns
Director
Office of Hazardous Materials

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.

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