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White Paper

Life without ORM-D: PHMSA proposes to eliminate the ORM-D exception for consumer commodity shipments of hazardous materials

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Life without ORM-D: PHMSA proposes to eliminate the ORM-D exception for consumer commodity shipments of hazardous materials.

For many companies, including retailers, distributors and other individuals who are involved in transporting hazardous materials (hazmat) in consumer commodity quantities, utilization of the ORM-D exception is a common way of moving these items through the supply chain. Companies have built logistics systems and training programs around use of the ORM-D exception, as it is the most cost effective way to safely ship hazmat in compliance with the transportation regulations, codified 49CFR. Annually the Pipeline and Hazardous Materials Safety Administration (PHMSA) publishes a Notice of Proposed Rulemaking (NPRM) to harmonize the Hazardous Materials Regulations (HMR) in 49CFR, with the United Nations (UN) requirements.

The most recent NPRM, published on August 24, 2010, is a potential game changer that could significantly impact how consumer commodities are transported in the United States. In this proposal the Department of Transportation (DOT) would phase out the use of the ORM-D and ORM-D-Air exceptions and conform to international standard for limited quantity shipments as the primary alternative for shipping consumer commodities as anything other than fully regulated shipments. While not yet finalized, this rule could be implemented as soon as January 1, 2011 with mandatory compliance starting January 1, 2014.

ORM-D Consumer Commodity

The majority of consumer commodity hazmat items transported are safely transported on a daily basis as ORM-D materials. Some are under the false presumption that just because a material is ORM-D that it not subject to the HMR regulations as a hazardous material, when in fact, ORM-D materials are consumer commodities that are subject to the same hazmat transportation regulations but present a limited hazard during transport due to their form, quantity, and packaging are therefore allowed some relief under the HMR. To utilize the ORM-D exception substances must first meet the limited quantity exception and must be packaged for retail in a form intended or suitable for retail sale. The limited quantity exception can be determined by referencing column 8A on the hazardous materials table found in 49 CFR 172.101 for the proper shipping name associated with the substance. If the exception is provided in column 8A, and the substance meets the requirements of the listed Part, it may be further classified as ORM-D.

Items such as aerosols, paints, household cleaners, and cosmetics are just a few examples of products that are commonly re-classified as ORM-D material. The ORM-D exception does provide significant relief, allowing shippers to transport regulated consumer commodities in a less restrictive and more cost effective manner than if they were fully regulated. For example, ORM-D materials are excepted from shipping papers, placarding, and labeling requirements for hazardous materials. However, they must be marked "Consumer Commodity – ORM-D" on the package, the total gross weight of each package marked ORM-D may not exceed 66 lbs and they must be packed in strong, undamaged containers (boxes).

ORM-D Challenges

While the ORM-D exception provides a tremendous benefit to transporters of consumer commodities, it is unique to the United States (US) regulations which make it, at many levels, incompatible with international regulations. As supply chains continue to become more global in nature, PHMSA has recognized the need to revise the current DOT regulations to align with international standards to help ensure that materials can easily flow in commerce. Because ORM-D is only used in the US, other countries do not always recognize the meaning of the ORM-D marking. This may mean that packages intended for, or received

from global customers must be re-marked, or marked in more than one way. While PHMSA has allowed the use of multiple markings, this complicates hazard communication, resulting in confusion amongst shippers, recipients and carriers. Many believe that while initially difficult to implement, aligning the existing limited quantity exception provided in the HMR with the international standards, and mandating one system that uses one mark, would enhance compliance, comprehension and substantially enhance safety throughout the transportation system.

In the NPRM, PHMSA also emphasizes that it would not include the immediate or short term removal of the existing limited quantity provision in the HMR. They expect that because the limited quantity provision in the UN Model Regulations and the IMDG Code are already closely aligned with those contained in the HMR, domestic alignment for highway, rail and vessel transportation will result in minimal impact and regulatory burden. Also, because of inherent risks unique to air transportation, PHMSA considers full harmonization with the International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transportation of Dangerous Goods by Air necessary with regard to the materials authorized, and quantity limits for limited quantities (including consumer commodities) intended for transport by air.

Change to Limited Quantity

The limited quantity exception outlined by the international regulations provides greater relief for consumer commodity shipments than the current limited quantity exception in the HMR. Under the current HMR regulations the relief provided by the limited quantity exception comes in the form of packaging and labeling. Limited quantity rules can be found at 49 CFR 173.150 through 173.156 and 173.306. In using the HMR limited quantity exception the shipper is still required to fill out hazardous shipping papers, write the proper shipping name on the outside of the package, write "ship to" and "ship from" addresses on packages and provide "up" arrows for liquid materials. However, no UN packaging or hazardous labeling is needed. International limited quantity rules would require the UN diamond marking to be on the package and would not require additional package marking or labeling, and would not require shipping papers to be produced for consumer commodity shipments. See Table 1 for summary of limited quantity and ORM-D requirements under the HMR and international requirements.

Impact to Shippers

PHMSA anticipates the impact of this to be fairly minimal from a regulatory standpoint; however, this could have substantial impact for companies that ship ORM-D materials to implement on multiple levels. Many companies have built their hazmat transportation compliance programs on the notion that the majority of their consumer items are not regulated, or would be handled as ORM-D shipments. This perception has for some, led to the false presumption that ORM-D materials are not regulated, when in fact they are. The elimination of the ORM-D exception will compel many companies to re-evaluate their transportation programs and re-think how they manage consumer commodity hazardous materials in their supply chain. Specific areas that may need to be addressed would include Employee Training, Transportation Systems, Packaging, Reverse Logistics Systems, and Product Classifications.

- **Product Classification** – The baseline of a good hazmat transportation program begins with knowing what hazardous materials could be shipped and ensuring those materials are accurately classified. If an inventory has not been classified for transportation or only classified to identify ORM-D items, the shift from ORM-D to Limited Quantity will require them to re-classify all of their items to identify the classification and hazard classes of items previously only identified as ORM-D. Item level classification will trickle down into all aspects of the hazmat transportation program. For example, proper classification of items will dictate which UN diamond markings to place on limited quantity packages for shipment.

- Employee Training – All hazmat employees will need to be re-trained to these new requirements. This may include those employees packaging materials for shipment, or those handling materials in shipping and receiving areas. Employee training materials and guidance documents on packaging and marking will need to be updated to remove instructions on ORM-D shipments and provide guidance on the new requirements.
- Transportation Systems – Companies will need to perform an assessment of the current systems they utilize to store product transportation classification data, provide instructions to hazmat employees, and/or generate shipping documentation to determine if they are capable of supporting the new requirements. Depending on the systems, significant investments may need to be made to ensure that products continue to be shipped in compliance.
- Packaging - Under the ORM-D exception, packages only needed to be marked with “ORM-D Consumer Commodity”. Under the new rule this will become obsolete and Limited Quantity shipments will need to be marked with the appropriate UN Diamond label for the products being shipped. Many retailers, distributors and other transporters of consumer commodities utilize packaging, such as boxes or totes, with “ORM-D Consumer Commodity” permanently marked or engrained onto the packaging. These materials will need to be replaced or otherwise modified to conform to the limited quantity marking requirements.
- Reverse Logistics – Companies may find this change to be beneficial for moving products through reverse logistics systems. By eliminating the consumer commodity requirement, products that are not in the manufacturer’s original packaging and are not waste can be shipped under the limited quantity exception. By providing more consistency in shipping requirements retailers may find improved hazmat employee comprehension of transportation requirements and ultimately improved levels of compliance adherence.
- Hazard Communication – Classification, marking and labeling will be more closely aligned with the UN model transportation regulations (GHS) which will allow materials to be transported more easily internationally and promote improved comprehension of the hazards associated with consumer commodity shipments.

Implementation

The NPRM was released on August 24, 2010 and open for public comment through October 25, 2010. Based on comments received during this process, PHMSA would implement the new rule phase, which would include a transitional period of 3 years to allow affected parties adequate time to comply with the new regulation. PHMSA would authorize immediate voluntary compliance with the new regulations upon the effective date of the new rule. The ORM-D and ORM-D Air exceptions would be eliminated after 3 years, effective January 1, 2014. At which time consumer commodities classified as ORM-D would simply be reclassified as limited quantities rather than their intended end use.

Full text of the Federal Register Vol. 75 No. 163 published on August 24, 2010 can be found at <http://edocket.access.gpo.gov/2010/2010-19952.htm>

Summary

While elimination of the ORM-D Consumer Commodity exception may be beneficial in the long term, there may be an immediate impact for transporters of hazardous materials to reevaluate their current policies and practices to ensure they are adequately prepared to continue to transport hazardous materials in compliance with these new regulations.

3E Company Transportation Solutions

3E Company has an extensive history of leadership in serving the transportation needs of the retail market. 3E offers a comprehensive suite of Transportation services that provides customers with a dependable resource for all of their hazardous material transportation management needs. Customers can have 3E pre-classify products for transportation shipment via ground, air or vessel as well provide employees 24-7-365 access to 3E's Transportation Hotline for real-time support with dangerous goods transportation activities. 3E can also provide live emergency support services for incidents involving chemicals in transport through 3E's 24-7-365 EH&S Mission Control Center. 3E Company's full product lifecycle approach provides a single, integrated solution set for managing EH&S capabilities, resulting in reduced cost, risk and liability while improving business processes throughout the supply chain.

For further information of 3E's suite of transportation and retail services visit us on the internet at www.3ecompany.com or contact us in person at 800-360-3220 or info@3ECompany.com.

[3E Transportation Services Brochure](#)

[3E Retail Solutions Brochure](#)

Limited Quantities and Consumer Commodities Table

from August 24, 2010 Federal Register Vol. 75 No 163; 52074

Requirement	HMR LQ	HMR ORM-D	UN LQ	ICAO TI LQ	IMDG Code LQ
Marking	PSN or UN diamond/ ID# (§172.301 and 172.315)	“ORM-D” or “ORM-D-Air” “Consumer Commodity” (§172.316)	UN diamond/ ID# unless consumer commodity (ID # not required)	PSN, ID# or diamond and “LTD QTY”	UN diamond/ ID# unless consumer commodity (ID# not required). Exception includes MARPOL.
Labeling	None unless Division 6.1, Packing Groups II and III	None	None	Required	None (Placard size CTU LQ mark required).
Documentation	Required	ORM-D –AIR only unless RQ, waste or MARPOL	Required unless a consumer commodity	Required	Required unless consumer commodity
Material Authorizations	<p>PSN entry must cite exception section in Column(8A) of HMT, typically of the following:</p> <ul style="list-style-type: none"> • Division 2.1 and 2.2 (gases and aerosols) • Class 3 (PG II, III) • Division 4.1 (Flammable Solids) • Division 4.3, PG II, III • Division 5.1, PG II, III • Division 5.2 Types B,C D, E, F • Division 6.1 PG II, III • Class 8, PG II, III • Class 9 <p>Compared to UNMR the HMR:</p> <ul style="list-style-type: none"> • Permits (23) PG I Class 3 materials as LQ • Permits (11) Class 9 materials as LQ 	Generally, all materials authorized LQ except for Division 6.1, PG II (unless drug or medicine)	Similar to HMR except as follows: <ul style="list-style-type: none"> • Division 2.2 only (except aerosols) • Certain Class 9 materials not authorized LQ • Compared to HMR the UNMR: • Permits (9) PG I, Class 3 materials as LQ • Permits (10) Class 9 materials as LQ 	<ul style="list-style-type: none"> • Aerosols(Divisions 2.1, 2.1 w/ sub risks) and Small receptacles (Divisions 2.1 and 2.1 w/o sub risks) • Class 3, PG II, III • Division 4.1, PG II, III (no self reactives) • Division 4.3, PG II, III (solids only) • Division 5.1, PG II, III • Division 5.2, Types D, D, E, F when park of PRK, FAK or CK • Division 6.1, PG II, III • Class 8, PG II, III excluding 2794, 2795, 2803, 2809 and 3208 (batteries, gallium, mercury) • Class 9 (1941, 1990, 2071, 3077, 3082, 3316 only) 	Generally, aligned with UNMR with minor vessel-unique requirements
LQ Quantity Limits	<ul style="list-style-type: none"> • Aerosols more restrictive than UNMR, ICAO TI and IMDG Code • Classes and Divisions 3-9 generally aligned with int’l codes except for materials w/ primary or sub risk of Division 6.1, PG II and III 	ORM-D-AIR inner packaging quantity limits are specified in §173.27 and are based on Column (9A) and (9B) values in the HMT, or, in §173.150-173.155 and 173.306, whichever value is more restrictive. They normally exceed the ICAO TI inner packaging quantity limit values for LQ	Generally, aligned with HMR w/minor differences (e.g. Division 6.1 and Class 9 materials)	<ul style="list-style-type: none"> • Aerosols/ Small receptacles 20 Kg G • Inner and outer packaging quantity limits generally aligned with UNMR 	Generally, aligned with UNMR with minor vessel-unique requirements