



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

400 Seventh St., S.W.  
Washington, D.C. 20590

MAY 17 2001

Mr. Robert Monteith  
Great Lakes Chemical Corporation  
P.O. Box 7020  
El Dorado, AR 70730

Ref. No. 00-0327

Dear Mr. Monteith:

This responds to your October 19, 2000 letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) as they apply to shipments of phosphorus trichloride, 6.1, 8, UN 1809, PG I, toxic inhalation hazard, Zone B. Specifically, you ask about the circumstances under which a shipment of phosphorus trichloride may be packaged in accordance with § 173.227(c). Please accept my apology for our delay in responding to your letter.

Your letter describes a shipment scenario in which drums containing phosphorus trichloride are loaded by the shipper into a transport vehicle and transported by the shipper directly to the carrier's terminal. At the carrier's transport terminal, the drums are unloaded by the carrier from the transport vehicle and reloaded by the carrier into a freight container for transport to a port where the freight container will be loaded onto a vessel bound for Puerto Rico. The carrier performs the shipper functions outlined in § 173.227(c) by loading the drums into the freight container, blocking and bracing the drums, sealing the freight container, and preparing a shipping paper for transporting the drums from the terminal to Puerto Rico. You ask whether unloading and reloading the drums at the carrier's terminal constitutes an intermediate stop, thus forbidding the use of the packaging permitted under § 173.227(c).

The answer is yes. Section 173.227 sets forth packaging requirements for Division 6.1 materials in Packing Group I that are poisonous by inhalation (PIH), Hazard Zone B. Paragraph (c) of this section permits such materials to be shipped in a single 1A1, 1B1, 1H1, 1N1, or 6HA1 drum without being further packed in a 1A2 or 1H2 drum if the shipper loads the material, blocks and braces the drum in the transport vehicle, and seals the transport vehicle. The shipment must move from one origin to one destination only with no intermediate stops for pick-up or delivery. The intent of this paragraph is to permit less stringent packaging for PIH, Hazard Zone B materials under controlled conditions where handling, including loading and unloading, is conducted by persons familiar with the hazards associated with PIH materials and, further, where such handling is minimized.

The shipment scenario described in your letter is inconsistent with § 173.227(c). The shipment's origin is your facility, and the shipment's destination is Puerto Rico. The carrier's terminal is not the shipment destination. Delivery of the material to a carrier terminal for reloading into a freight container or transport vehicle is an intermediate stop as that term is used in § 173.227(c). Under



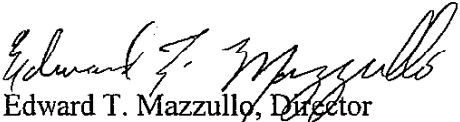
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173.227

the provisions of § 173.227(c), the transport vehicle may not be unsealed prior to delivery at the shipment's destination. Thus, you may not utilize the packaging exception in § 173.227(c) to ship phosphorus trichloride under the shipping conditions you describe.

I hope this information is helpful. If you have further questions, please do not hesitate to contact this office.

Sincerely,



Edward T. Mazzullo, Director  
Office of Hazardous Materials Standards



**Great Lakes**  
**Chemical Corporation**  
P.O. BOX 7020 EL DORADO, AR 71730

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§173.227(c)  
Applicability  
Packaging  
00-0327

October 19, 2000

U. S. Department of Transportation  
Edward Mazzullo, Director  
Office of Hazardous Materials Standards  
400 7<sup>th</sup> Street, SW  
Washington, DC 20590-0001

Dear Mr. Mazzullo,

Please accept this letter as a request for interpretation of 173.227 and how it may apply to our application shipping phosphorus trichloride, 6.1, (8), UN1809, PGI, Toxic-Inhalation Hazard, Zone B, in drums with emphasis on what constitutes "an intermediate stop."

We utilize 173.227 (b) which is a 1A1, 1B1, 1N1, or 1H1 drum or 6HA1 composite further packed in a 1A2 or 1H2 drum. We also ship this material per 173.227 (c) which is 1A1, 1B1, 1H1, 1N1, or 6HA1 drums described in paragraph (b) of this section without being further packed into a 1A2 or 1H2 drum if the shipper loads the material, blocks and braces the drums within the transport vehicle and seals the transport vehicle. Shipments must be from one origin to one destination only without any intermediate pickup or delivery.

In our application, the drums are loaded into the carrier transport vehicle and is transported directly to the carrier's terminal. At the carrier's terminal, the drums are unloaded and reloaded into a container, blocked and braced, sealed and a new shipping paper is created by the carrier for transport to the port to be loaded onto a vessel bound for Puerto Rico. My question: Does the unloading and reloading at the carrier's terminal constitute an intermediate stop, thus forbidding use of 173.227 (c) packaging?

I would appreciate your timely response. My telephone number is 870-864-1616 and my fax number is 870-864-1619.

Sincerely,

Robert Monteith  
Dot Compliance Officer  
Great Lakes Chemical Corporation