



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

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

MAY 21 2003

Mr. Lawrence W. Bierlein, Esq.
McCarthy, Sweeney & Harkaway, P.C.
Suite 600
2175 K Street, N.W.
Washington, D.C. 20037

Ref. No.: 03-0115

Dear Mr. Bierlein:

This responds to your letter dated May 2, 2003, a clarification of the requirements in § 177.848(e) of the Hazardous Materials Regulations (49 CFR parts 171-180) as they apply to separation of non-compatible materials. Your specific scenario involves the separation of properly packaged and prepared hazardous materials in a refrigerated trailer that has floor ribs running from front to back of the trailer. The scenario is as follows:

Packages containing hazardous materials bearing an OXIDIZER label are loaded on a pallet in the front of the trailer, liquid hazardous materials bearing a CORROSIVE label are loaded on a pallet and placed near the midline of the trailer, and hazardous materials bearing a FLAMMABLE LIQUID label are loaded on a pallet and loaded near the rear of the trailer. The intervening spaces contain pallets loaded with compatible hazardous materials or non-regulated materials. Segregation is achieved by the placement of the hazardous materials in specific locations on the trailer and using other compatible freight to provide separation. However, at issue is whether the ribbed flooring of the trailer prevents these materials from being loaded on the same vehicle, even though otherwise separated.

It is the opinion of this Office that the method of separation described in the above scenario meets the requirements specified in § 177.848(e). The fact that the floor of the trailer is ribbed has no bearing on this requirement.

I hope this information satisfies your inquiry. Please contact us if you require additional assistance.

Sincerely,

Delmer F. Billings
Chief, Standards Development
Office of Hazardous Materials Standards



030115

177.848

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May 2, 2003

Billings
\$ 177.848
Segregation
03-0115

Mr. Delmer Billings
Standards Development
Office of Hazardous Materials Standards
Research & Special Programs Administration
Department of Transportation
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Washington, DC 20590

Re: Request for interpretation;
49 CFR 177.848(e)

Dear Mr. Billings:

On behalf of Fisher Scientific Company, I request your concurrence in my interpretation of Section 177.848(e) of the hazardous materials regulations. Specifically, this request pertains to application of the entry "O" as it appears in the Sec. 177.848 segregation chart and as it is defined in subparagraph (e)(3) of that section. This request is prompted by a disagreement with California authorities, who are pursuing an enforcement action based on a differing view.

Fisher Scientific is a supplier of packaged chemicals to laboratories. The company ships and loads motor vehicles with a wide variety of chemical products. Often these are DOT-regulated hazardous materials and, when bearing labels in accordance with the regulations, may be covered by loading restrictions in Part 177.

These are all non-bulk packages, marked and tested in accordance with the UN performance standards. Most are combination packages, i.e., UN 4G fiberboard boxes with inner receptacles. Several packages of compatible materials are loaded on a pallet, and are stretch-wrapped to stabilize them on the pallet. All packages in the load are palletized in this manner.

Fisher Scientific has followed a vehicle loading pattern consistent with what we understand to be past interpretations of these regulations. Labeled articles of compatible materials on pallets are loaded in the first row across the nose of the trailer. Next, the

company loads one or more rows of pallets of materials not subject to Part 177, that are not capable of reacting dangerously with the hazardous materials.

In the approximate center of the trailer, another row of labeled articles on pallets is loaded, separated from the front row by the intervening pallets of other freight. This middle row of compatible materials may contain articles requiring separation from the labeled articles in the first row. The middle row is followed by one or more rows of pallets of materials not subject to Part 177 and, at the door of the trailer, a row of one or more pallets of additional labeled articles are placed.

In accordance with the regulations, the packages in this last row may need to be separated from those in the middle or the first rows. In short, the first, middle, and last rows of palletized labeled materials are separated from one another by at least one pallet-width of intervening freight not subject to Part 177. The entire load is secured as required.

The quality and purity of these laboratory chemicals are essential to the technical customers for such products. Over many years, the company has determined that temperature controls, minimizing extremes of ambient heat or cold, are often the most appropriate and effective method of assuring quality and safety in the use of the products. Hence, these shipments frequently are made in refrigerated trailers. I understand this to be the common practice in the industry for distribution of chemical reagents.

The floor of a refrigerated trailer has ribs running from the front to the back of the vehicle. The State of California has taken the position that a material that might leak from a box on the front row of pallets conceivably could move across this floor to the middle row of pallets, or to the last row of pallets, thereby allowing commingling of incompatible hazardous materials. Their contention is that the common floor of a refrigerated trailer precludes every product on the truck from being segregated from every other product on the truck. Their view would compel use of a different refrigerated vehicle to separate each material subject to the "O" entry in Section 177.848.

I have reviewed the history of the segregation chart, particularly the most recent rulemaking in Docket No. HM-181B. As you know, DOT proposed requiring a lateral separation of approximately 1.2 meters (4 feet) and 10.6 cm (4 inches) off the floor to segregate materials subject to the "O" entry in the chart. Following substantial public comment, much of which pointed out that separation distances could be less without reducing transportation safety, these specific measures were not adopted. Instead, the more generic standard now appearing in the definition of "O" was adopted, allowing separation distances of less than 4 feet.

At no time did the agency propose or state, nor did any of the comments I reviewed indicate, that for *refrigerated* trailers the definition of "O" would have the same operational effect as "X", meaning that materials requiring separation could not be shipped aboard the same vehicle.

Numerous interpretations over the years have confirmed and made clear that intervening freight may be used as an adequate means of segregation of materials bearing labels requiring "O" segregation. An early interpretation, for example, said that labeled corrosive materials could be loaded with oxidizers if the products were separated by

flammable liquids or non-hazardous products. That interpretation (Feb. 8, 1984; attached) also noted, "In most instances, an intervening space of at least one foot is considered adequate."

We believe that palletized non-bulk UN packages of materials, separated by at least one pallet-width from any other labeled article requiring separation, complies with the requirements of 49 CFR 177.848(e), whether these pallets are on a ribbed floor or not on a ribbed floor. Nothing in the rulemaking history of this section supports the conclusion that different materials having an "O" entry in the table, when shipped on refrigerated equipment, must be carried on a separate vehicle.

Your concurrence in our understanding of this regulation would be very much appreciated. Please contact me if you have any questions on this request. Thank you.

Sincerely,



Lawrence W. Bierlein
For Fisher Scientific Company

STATE OF CALIFORNIA DEPARTMENT OF CALIFORNIA HIGHWAY PATROL SAFETYNET DRIVER/VEHICLE INSPECTION REPORT



3896411

SPEC. PROJ. CODE 412

CHP 407F (Rev. 9-85) OPI 062

DATE 6-4-02 TIME START 11:20 LEG 3 LOC CODE 711 BEAR 859 INSPECT BY [REDACTED] ID NO. 10661 TIME END 1:35

DRIVER INFORMATION: MI [REDACTED] LAST NAME [REDACTED] DDL NO. 414864409 STATE GA

CARRIER INFORMATION: CHP NO. CA-8333 PUC NO. ICC NO. MC- DOT NO. US DOT-

STREET ADDRESS: PO BOX 135 RIVERVIEW DR CITY RICHLAND STATE MS ZIP CODE 39218

VEHICLE INFORMATION table with columns: VEH, YEAR, MAKE, TYPE, AXLES, LIC NO., STATE, EQPMT. NO.

DRIVER QUALIFICATIONS table with columns: COMPLIANCE, NO, O/S, DIS. Rows: Driver's License, Medical Cert., Driver's Log, Driver's Hours.

VEHICLE INSPECTION table with columns: COMPLIANCE, NO, O/S, DIS. Rows: Steering Components, Exhaust, Low Air Warning Device, Air Loss, Unapplied, Brake Adjustment, Brake Drums/Shoes, ABS System, Lights, Stop/Turn, Wheels, Tires, Suspension, Maintenance/Other, Registration.

HAZARDOUS MATERIALS INSPECTION table with columns: COMPLIANCE, NO, O/S, DIS. Rows: Ship Paper/Manifest, HM License, HM Registration, Placards, Packaging, Marking, Labels, Loading/Securement, Cargo/Regulatory Documents, Safety Equipment.

CVSA STICKERS ISSUED: NO. 2155 ISSUED 1, NO. 2819 ISSUED [REDACTED]. OFFICER NO. 10661, REGULATED VEHICLE [X] Yes [] No. OWNER'S RESP. [] Yes [X] No, RESP. PERSON [REDACTED].

- 1) IMPROPER SHIPPING NAME, BL # 06000038808, 1,2-DI DIMETHYLAMINE ETHANE SHIPPING PAPERS NOT IN PROPER S
2) class 8 liquids loaded with class 5.1
3) class 8 liquids loaded with class 4.3
4) class 3 loaded with 5.1
class 4.3 loaded with
10 seal # NDC 11454

PLEASE READ THE INSTRUCTIONS ON THE REVERSE SIDE OF THIS FORM. I acknowledge that I have reviewed and received a copy of this report. DRIVER SIGNATURE [REDACTED]