



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

JAN 13 1999

Ms. Jenny Hobby
Pratt & Whitney
Traffic Packaging Engineering
600 Metcalf Road
San Jose, CA 95138

Ref. No. 98-0376

Dear Ms. Hobby:

This is in response to your letter of December 11, 1998 concerning the segregation of explosives under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically you were inquiring about the rules for transporting Division 1.4B and 1.2B explosives with Division 1.4S detonators.

Section 177.848 contains the Compatibility Table for Class 1 (Explosive) materials. Note four is indicated when considering Group B and S materials which refers to § 177.835. → Section 177.835(g) prohibits the transportation of detonators on the same motor vehicle with any Division 1.1, 1.2, or 1.3 (Class A or Class B) material (except other detonator assemblies, boosters with detonators or other detonators), explosives for blasting, or detonating cord Division 1.4 (Class C) material. These materials may be transported on the same motor vehicle only if the requirements of § 177.835(g)(1), (2), and (3) are met.

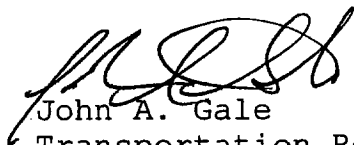
We also wish to clarify the difference between a transport vehicle and a motor vehicle, as this issue was raised in telephone conversations with members of our staff. As defined in § 171.8, a transport vehicle means a cargo-carrying vehicle and each cargo-carrying body is a separate transport vehicle.

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A motor vehicle is defined as any number of transport vehicles powered by the same motor or engine (except vehicles which travel by rail or a trolley).

I hope this satisfies your request.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. A. Gale', written in a cursive style.

John A. Gale
Transportation Regulations Specialist
Office of Hazardous Materials Standards



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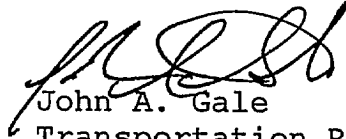
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John A. Gale
Transportation Regulations Specialist
Office of Hazardous Materials Standards

Chemical Systems
P.O. Box 49028
San Jose, CA 95161-9028



Pratt & Whitney
A United Technologies Company

BPH
S 177.834
1 98-0376

FAX COVER SHEET

Date: 12/11/98

Number of Page: 1

To: DIANE LAVALLE/mike JOHNSON

Company: DOT

Fax Number: 202 366 - 3012

Remarks: Ranger TRANSPORTATION SAID it was legal to put class 1.45 in a tractor drome & put 1.4B + 1.2B in the trailer (van) of the same truck.

The 1.45 are detonators.

A Ranger representative said he spoke to you & you approved. Would ^{you} confirm this for me, please.

177.8359 from 49 CFR seems to contradict this considering the 1.45 are detonators.

THANKS!

Jenny Hobby, Traffic/Packaging Engineering
600 Metcalf Road, San Jose, CA 95138
Phone: (408) 776-4219/Fax - 776-4822
E-Mail: Hobby@CSD.com

STILL NEEDS LETTER

(iii) Division 2.3 (poisonous gas) or Division 6.1 (poisonous) materials, or

(iv) Hazardous materials in a portable tank or a DOT specification 106A or 110A tank.

(d) [Reserved]

(e) *No sharp projections inside body of vehicles.* No motor vehicle transporting any kind of Class 1 (explosive) material shall have on the interior of the body in which the Class 1 (explosive) materials are contained, any inwardly projecting bolts, screws, nails, or other inwardly projecting parts likely to produce damage to any package or container of Class 1 (explosive) materials during the loading or unloading process or in transit.

(f) *Class 1 (explosive) materials vehicles, floors tight and lined.* Motor vehicles transporting Division 1.1, 1.2, or 1.3 (Class A or Class B explosive) materials shall have tight floors; shall have that portion of the interior in contact with the load lined with either non-metallic material or non-ferrous metals, except that the lining is not required for truck load shipments loaded by the Departments of the Army, Navy or Air Force of the United States Government provided the Class 1 (explosive) materials are of such nature that they are not liable to leakage of dust, powder, or vapor which might become the cause of an explosion. The interior of the cargo space must be in good condition so that there will not be any likelihood of containers being damaged by exposed bolts, nuts, broken side panels or floor boards, or any similar projections.

(g) No detonator assembly or booster with detonator may be transported on the same motor vehicle with any Division 1.1, 1.2 or 1.3 (Class A or Class B explosive) material (except other detonator assemblies, boosters with detonators or detonators), explosives for blasting or detonating cord Division 1.4 (Class C explosive) material. No detonator may be transported on the same motor vehicle with any Division 1.1, 1.2 or 1.3 (Class A or Class B explosive) material (except other detonators, detonator assemblies or boosters with detonators), explosives for blasting or detonating cord Division 1.4 (Class C explosive) material unless—

(1) It is packed in a specification MC 201 (§ 178.318 of this subchapter) container; or

(2) The package conforms with requirements prescribed in § 173.63 of this subchapter, and its use is restricted to instances when—

(i) There is no Division 1.1, 1.2, or 1.3 (Class A or Class B explosive) material or blasting agent loaded on the motor vehicle; and

(ii) A separation of 61 cm (24 inches) is maintained between each package of detonators and each package of detonating cord; or

(3) It is packed and loaded in accordance with a method approved by the Department. One method approved by the Department is as follows:

(i) The detonators are in packagings as prescribed in § 173.63 of this subchapter which in turn are loaded into suitable containers or separate compartments. Both the detonators and the container or compartment must meet the requirements of the Institute of Makers of Explosives' Standard (IME Safety Library Publication No. 22).

(h) *Lading within body or covered tailgate closed.* Except as provided in paragraphs (g), (k), and (m) of this section, dealing with the transportation of liquid nitroglycerin, desensitized liquid nitroglycerin or diethylene glycol dinitrate, all of that portion of the lading of any motor vehicle which consists of Class 1 (explosive) materials shall be contained entirely within the body of the motor vehicle or within the horizontal outline thereof, without overhang or projection of any part of the load and if such motor vehicle has a tailboard or tailgate, it shall be closed and secured in place during such transportation. Every motor vehicle transporting Class 1 (explosive) materials must either have a closed body or have the body thereof covered with a tarpaulin, and in either event care must be taken to protect the load from moisture and sparks, except that subject to other provisions of these regulations, Class 1 (explosive) materials other than black powder may be transported on flat-bed vehicles if the explosive portion of the load on each vehicle is packed in fire and water resistant containers or covered with a fire and water resistant tarpaulin.

(i) *Class 1 (explosive) materials to be protected against damage by other lading.* No motor vehicle transporting any Class 1

(g) Instructions for using the compatibility table for Class 1 (explosive) materials are as follows:

(1) A blank space in the Table indicates that no restrictions apply.

(2) The letter "X" in the Table indicates that explosives of different compatibility groups may not be carried on the same transport vehicle.

(3) The numbers in the Table mean the following:

(i) "1" means an explosive from compatibility group L shall only be carried on the same transport vehicle with an identical explosive.

(ii) "2" means any combination of explosives from compatibility groups C, D, or E is assigned to compatibility group E.

(iii) "3" means any combination of explosives from compatibility groups C, D, or E with those in compatibility group N is assigned to compatibility group D.

(iv) "4" means § 177.835(g) when transporting detonators.

(v) "5" means Division 1.4S fireworks may not be loaded on the same transport vehicle with Division 1.1 or 1.2 (Class A explosive) materials.

(h) Except as provided in paragraph (i) of this section, explosives of the same compatibility group but of different divisions may be transported together provided that the whole shipment is transported as though its entire contents were of the lower numerical division (i.e., Division 1.1 being lower than Division 1.2). For example, a mixed shipment of Division 1.2 (Class A explosive) materials and Division 1.4 (Class C explosive) materials, both of compatibility group D, must be transported as Division 1.2 (Class A explosive) materials.

(i) When Division 1.5 (blasting agent) materials, compatibility group D, are transported in the same freight container as Division 1.2 (Class A explosive) materials, compatibility group D, the shipment must be transported as Division 1.1 (Class A explosive) materials, compatibility group D.

[Amdt. 177-78, 55 FR 52712, Dec. 21, 1990, as amended at 56 FR 66283, Dec. 20, 1991; 57 FR 45465, Oct. 1, 1992; 57 FR 47513, Oct. 16, 1992; Amdt. 177-78, 57 FR 59310, Dec. 15, 1992; Amdt. 177-82, 58 FR 50237, Sept. 24, 1993; Amdt. 177-83, 59

FR 49134, Sept. 26, 1994; Amdt. 177-87, 61 FR 27175, May 30, 1996]

Subpart D—Vehicles and Shipments in Transit; Accidents

§177.854 Disabled vehicles and broken or leaking packages; repairs.

(a) *Care of lading, hazardous materials.* Whenever for any cause other than necessary traffic stops any motor vehicle transporting any hazardous material is stopped upon the traveled portion of any highway or shoulder thereof, special care shall be taken to guard the vehicle and its load or to take such steps as may be necessary to provide against hazard. Special effort shall be made to remove the motor vehicle to a place where the hazards of the materials being transported may be provided against. See §§ 392.22, 392.24, and 392.25 of this title for warning devices required to be displayed on the highway.

(b) *Disposition of containers found broken or leaking in transit.* When leaks occur in packages or containers during the course of transportation, subsequent to initial loading, disposition of such package or container shall be made by the safest practical means afforded under paragraphs (c), (d), and (e) of this section.

(c) *Repairing or overpacking packages.* (1) Packages may be repaired when safe and practicable, such repairing to be in accordance with the best and safest practice known and available.

(2) Packages of hazardous materials that are damaged or found leaking during transportation, and hazardous materials that have spilled or leaked during transportation, may be forwarded to destination or returned to the shipper in a salvage drum in accordance with the requirements of § 173.3(c) of this subchapter.

(d) *Transportation of repaired packages.* Any package repaired in accordance with the requirements of paragraph (c)(1) of this section, except as provided in §§ 177.855(c), 177.856(c), and 177.858(b), may be transported to the nearest place at which it may safely be disposed of only in compliance with the following requirements:

177.854
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