



DEPARTMENT OF TRANSPORTATION
MATERIALS TRANSPORTATION BUREAU
WASHINGTON, D.C. 20590

19242

[49 CFR Parts 172, 173, 174, 175, 176, 177,
178]

[Docket No. HM-161; Notice No. 78-4]

**COMMERCIAL DETONATORS AND
DETONATING PRIMERS**

Proposed Rulemaking

AGENCY: Materials Transportation Bureau, Department of Transportation.

ACTION: Notice of proposed rulemaking.

SUMMARY: This notice proposes to provide more suitable and proper shipping descriptions and classifications of many detonators which are widely used commercially. The need for this action is the lack of proper shipping descriptions for many small explosive devices and the fact that blasting caps are not divided into class A explosives and class C explosives on a technically firm basis. Many explosives producers have complained about these deficiencies in the DOT regulations. The intended effect of this action is to correct the deficiencies noted above.

DATES: Comments must be received on or before September 1, 1978.

ADDRESS COMMENTS TO: Docket Section, Office of Hazardous Materials Operations, Department of Transportation, Washington, D.C. 20590. It is requested that five copies be submitted.

FOR FURTHER INFORMATION CONTACT:

Alan I. Roberts, Director, Office of Hazardous Materials Operations, 2100 2nd Street SW., Washington, D.C. 20590, 202-426-0656.

SUPPLEMENTARY INFORMATION: The purpose of this notice of proposed rulemaking is to propose amendments to Parts 172, 173, 174, 175, 176, 177, and 178 of the Department of Transportation's hazardous materials regu-

lations applicable to blasting caps, electric blasting caps and other commercial detonating devices. These amendments are being proposed for the following reasons:

1. The present division of blasting caps into class A explosives and class C explosives, based on whether there are more than 1,000 caps in a shipment, is unrealistic from the point of view of safety. Fuse caps, as now packaged, will explode en masse if one cap is set off, regardless of the number of caps in the package. On the other hand, testing has shown that electric blasting caps having leg wires 4 feet or more in length will not explode en masse when packaged as presently required.

2. There is no provision in the regulations for properly describing many types of small detonating devices. These devices must be described as "Detonating fuze, Class C explosive" even though they do not meet the definition for that shipping name. This proposal would make it possible to properly describe and classify products of this type. Provision would be made for adequate time to reclassify items now described as "Detonating fuzes, Class C explosives."

The most significant aspects of this proposal are:

1. Class A, type 7 explosives in § 173.53(g) would be retitled "Initiating Devices" since this description best defines their function. Three categories of initiating devices would be defined:

(a) *Commercial detonator.* This would include all commercial initiating devices that contain not more than 10 grams of explosives per unit.

(b) *Detonating primer.* This would include all commercial initiating devices that contain more than 10 grams of explosives per unit.

(c) *Detonating fuze.* This description would be reserved for ordnance items

that are used in military rather than commercial applications.

2. Provision has been made for classifying commercial detonators and detonating primers which comply with certain requirements relating to maximum explosive weight and limited propagation effects as class C explosives, instead of basing the class on the number of devices in a shipment.

3. In revising the packaging regulations, the requirements of existing § 173.67 would be incorporated in the revised § 173.66 which covers commercial detonators. Section 173.67 would be deleted. Section 173.68 would be revised and continue to apply to detonating primers.

It is proposed to revise the packaging regulations in order to:

(a) Simplify the present regulations;
(b) Coordinate them with the newly defined "commercial detonator" and "detonating primer"; and

(c) Include the packaging requirements of certain DOT exemptions so that their use will no longer be necessary. These exemptions are identified as Nos. E-5243, E-6466, and E-6477.

The primary drafters of this document are Charles W. Schultz, Technical Services Branch, Office of Hazardous Materials Operations, and Evan C. Braude, Office of the Chief Counsel, Research and Special Programs Directorate.

In consideration of the foregoing, Parts, 172, 173, 174, 175, 176, 177, and 178 of 49 CFR would be amended as follows:

PART 172—HAZARDOUS MATERIALS TABLE AND HAZARDOUS MATERIALS COMMUNICATIONS REGULATIONS

1. Section 172.101 would be amended as follows:

§ 172.101 Hazardous materials table.

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label (s) required (if not accepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipment		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or rail car	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements
	(Delete) Blasting caps - electric (1,000 or less) (show actual number)	Class C explosive	Explosive C	None	173.103	Forbidden	Forbidden	1,2	5	Portable magazine or metal locker. Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded.
	Blasting caps - electric (more than 1,000) (show actual number)	Class A explosive	Explosive A	None	173.66	Forbidden	Forbidden	6	5	Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded.
	Blasting caps - (1,000 or less) (show actual number)	Class C explosive	Explosive C	None	173.103	Forbidden	Forbidden	1,2	5	Portable magazine or metal locker. Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded.
	Blasting caps - (more than 1,000) (show actual number)	Class A explosive	Explosive A	None	173.66	Forbidden	Forbidden	6	5	Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded.
	Blasting caps with metal clad mild detonating fuse, (1,000 or less) (show actual number)	Class C explosive	Explosive C	None	173.103	Forbidden	Forbidden	1,2	5	Portable magazine or metal locker. Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded.
	Blasting caps with metal - clad mild detonating fuse (more than 1,000) (show actual number)	Class A explosive	Explosive A	None	173.66 173.67	Forbidden	Forbidden	6	5	Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded.

19246

PROPOSED RULES

(1) U/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label (a) required (if not accepted)	(5) Packaging		(6) Maximum quantity in one package		(7) Water placards		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or rail car	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements
	Blasting caps with safety fuse - (<u>1,000 or less</u>) (show actual number)	Class C explosive	Explosive C	None	173.103	Forbidden	Forbidden	1,2	3	Portable magnesium or metal locker. Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded.
	Blasting caps with safety fuse - (<u>more than 1,000</u>) (show actual number)	Class A explosive	Explosive A	None	173.66 173.67	Forbidden	Forbidden	6	3	Do not stow blasting caps with any high explosive. Do not handle blasting caps at the same time high explosives are being loaded.
	Detonating primer (Add) Blasting caps. See Commercial detonators. Blasting caps, electric. See Commercial detonators. Blasting caps, percussion actuated. See Commercial detonators. Blasting caps with metal clad w/1/2 detonating fuse. See Commercial detonators. Blasting caps with 8.0 or less grains/lb. Detonating cord See Commercial detonators and detonating primers. Blasting caps with safety fuses. See Commercial detonators.	Class A explosive	Explosive A	None	173.68	Forbidden	Forbidden	6	3	

2. In § 172.203 paragraph (c) would be deleted as follows:

§ 172.203 Additional description requirements.

• • • • •
(c) [Deleted]
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PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

3. In § 173.53 the introductory text of paragraph (g) would be revised; paragraph (g)(1) would be deleted; paragraph (g)(2) would be redesignated (g)(3) and new paragraphs (g)(1) and (g)(2) would be added; notes 1 through 5 following paragraph (h)(1) would be moved to the end of the section following paragraph (v); note 5 would be revised and a new note 6 would be added to read as follows:

§ 173.53 Definition of class A explosives.

• • • • •

(g) *Type 7.* An initiating device is a metal or plastic casing containing initiating or priming explosives, Class A—Type 4, either with or without other explosives. It is activated by any of the several means, including an electrical pulse, a flame, a shock or detonation wave, mechanical impact (percussion), pressurized gas, or high intensity light beam. It produces an explosive output that may be used to initiate another explosive or to perform work. A time delay may be incorporated in the means of applying the stimulus, or in the initiating device itself. Any device of this type which was previously approved by the Bureau of Explosives may be transported under the description and class assigned at that time until January 1, 1980.

(1) A commercial detonator (see note 5) is an initiating device for commercial use which contains not more than 10 grams of total explosives weight, excluding ignition and delay charges per unit. There are several different kinds of detonators such as the following:

(i) Blasting caps which are activated by safety fuse.

(ii) Blasting caps which are percussion activated.

(iii) Blasting caps which are activated by flexible detonating cord. This type can be further subdivided into four types as follows:

(A) Delay connectors in plastic sheaths which consist of a plastic sleeve that contains a suitable delay system with receptor and donor explosive charges in the center portion. Each end of the sleeve is made so that flexible detonating cord can be inserted into and locked to the connector;

(B) Delay connectors in metal tubes which consist of a system with a recep-

tor and donor charge positioned between two detonators with the entire assembly placed in a metal tube having both ends open for the insertion of flexible detonating cord;

(C) Delay connectors with detonating cord pigtaills which consist of delay connectors as described in paragraph (g)(1)(iii)(B) of this section that have short lengths of detonating cord inserted into both ends and crimped in place; and

(D) Nonelectric instantaneous and delay caps which consist of blasting caps to which is assembled a length of 8.0 or less grains/ft. detonating cord that may have a transfer explosive charge at the opposite end.

(iv) Blasting caps which are activated by gas pressurization or reaction.

(v) Blasting caps which are activated by a shock tube.

(vi) Electric blasting caps which are activated by an electric current.

(2) A detonating primer (see note 6) is an initiation device for commercial use which contains more than 10 grams of total explosive weight, excluding ignition and delay charges per unit.

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NOTE 5.—See § 173.100(gg) for criteria that determine whether a particular type of commercial detonator can be classed as Class C explosive.

NOTE 6.—See § 173.100(hh) for criteria that determine whether a particular type of detonating primer can be classed as a Class C explosive.

4. § 173.66 would be deleted and a new § 173.66 would be added to read as follows:

§ 173.66 Commercial detonators.

(a) Blasting caps (including percussion activated) and delay connectors in metal tubes must be snugly packed in strong inside containers. When blasting caps or delay connectors in metal tubes are packed vertically in metal inside containers, their open ends must be covered by a suitable cushioning material. The inside containers must then be snugly packed in intermediate packagings consisting of paper, plastic, or pasteboard cartons or wrappings. All intermediate packages must be packed in an outside packaging specified in paragraph (e) of this section. The intermediate packages must be separated from the outside container by at least 1 inch of tightly packed sawdust, excelsior, or equivalent cushioning material.

(1) The maximum number of these devices containing not more than 3.0 grams of explosives each, excluding ignition and delay charges, that may be packed in one inside container is 110 and in one outside packaging is 5,000. The gross weight of the package may not exceed 110 pounds, or the maximum gross weight allowed in the spec-

ification for the outside packaging used, whichever is less.

(2) The maximum number of these devices containing more than 3 but not more than 10 grams of explosives each, excluding ignition and delay charges, that may be packed in one inside container is 50 and in one outside packaging is 500. The gross weight of the package may not exceed 100 pounds or the maximum gross weight allowed in the specification for the outside packaging used, whichever is less.

(b) Electric blasting caps, delay connectors in plastic sheaths, and blasting caps with empty plastic tubing must be packed in pasteboard carton type inside containers. An inside container is not required for electric blasting caps that are contained in inside pasteboard tubes, or which have their leg wires wound on spools with the caps either placed inside the hub of the spool, or securely taped to the wire on the spool. The inside container, tubes, or spools must be packed in an outside packaging specified in paragraph (e) of this section.

(1) The maximum number of these devices, containing not more than 3.0 grams of explosives each, excluding ignition and delay charges, that may be packed in one inside container is 100 and in one outside container is 1,000. The gross weight of the package may not exceed 150 pounds, or the maximum gross weight allowed in the specification for the outside packaging used, whichever is less.

(2) The maximum number of these devices containing more than 3, but not more than 10 grams of explosives each, excluding ignition and delay charges, that may be packed in one inside container is 50 and in one outside packaging is 500. The gross weight of the package may not exceed 150 pounds or the maximum gross weight allowed in the specification for the outside packaging used, whichever is less.

(c) Blasting caps with safety fuse, blasting caps with metal clad mild detonating cord, blasting caps with 8.0 or less grains/ft. detonating cord, and blasting caps with shock tubes may be packed in inside containers, although this is not required. The blasting caps with attachments, or blasting caps in inside containers must be packed in an outside packaging specified in paragraph (e) of this section. No hand holes are permitted in outside packagings. The blasting cap and corresponding configuration should be such as to restrict freedom of movement of the cap and to protect it from impact forces. The blasting caps are not required to be attached to the safety fuse, metal clad mild detonation cord, shock tubes, or 8.0, or less, grain/ft.

(1) The maximum number of these devices, containing not more than 3

grams of explosives each, excluding ignition and delay charges, that may be packed in one inside container, if used, is 50 and in one outside packaging is 500. The gross weight of the package may not exceed 100 pounds or the maximum gross weight allowed in the specification for the outside packaging used, whichever is less.

(2) The maximum number of these devices, containing more than 3, but not more than 10 grams of explosives each, excluding ignition and delay charges, that may be packed in one inside container, if used, is 10 and in one outside packaging is 100. The gross weight of the package may not exceed 100 pounds or the maximum gross weight allowed in the specification for the outside packaging used, whichever is less.

(d) Delay connectors with detonating cord pigtails must be snugly packed in pasteboard cartons, or pasteboard tube inside containers. The inside containers must be packed in an outside packaging specified in paragraph (e) of this section.

(1) The maximum number of these devices containing not more than 3.0 grams of explosives each, excluding ignition and delay charges, that may be packed in one inside container is 50 and in one outside packaging is 500. The gross weight of the package may not exceed 150 pounds or the maximum gross weight allowed in the specification for the outside packaging used, whichever is less.

(2) The maximum number of these devices containing more than 3, but not more than 10 grams of explosives each, excluding ignition and delay charges, that may be packed in one inside container is 50, and in one outside packaging is 500. The gross weight of the package may not exceed 150 pounds or the maximum gross weight allowed in the specification for the outside packaging used, whichever is less.

(e) Commercial detonators either with or without inside containers, as provided for in this paragraph, must be packed in one of the following outside packagings:

(1) DOT specification 14, 15A, or 16A (§§ 178.166, 178.168, 178.185 of this subchapter) wooden box.

(2) DOT specification 12H, 23F, or 23H (§§ 178.209, 178.214, 178.219, of this subchapter) fiberboard box.

(f) Each outside packaging of commercial detonators must be plainly marked "Commercial Detonators—Handle Carefully" and must bear the appropriate explosives label specified in § 172.411 of this subchapter.

(g) Nothing in this section shall prohibit the consolidation of properly prepared packages by banding together, palletizing, or placing in an overpack or freight container, providing all applicable requirements of this subchapter are met.

§ 173.67 [Amended]

5. § 173.67 would be deleted in its entirety.

6. § 173.68 would be deleted and a new § 173.68 would be added to read as follows:

§ 173.68 Detonating primers.

(a) Blasting caps with 8.0 or less grains/ft. detonating cord must be packed in an outside packaging specified in paragraph (d) of this section. No hand holes are permitted in outside packaging. No inside container is required. The blasting cap and its corresponding coil configuration shall be such as to restrict freedom of movement of the cap and to protect it from impact forces.

(1) The maximum number of these devices that may be packed in one outside packaging is 500. The gross weight of the package may not exceed 150 pounds, or the maximum gross weight allowed in the specification for the outside packaging, whichever is less.

(b) Delay connectors with detonating cord pigtails must be snugly packed in pasteboard cartons or pasteboard tube inside containers. The inside containers must be packed in an outside packaging specified in paragraph (d) of this section.

(1) The maximum number of these devices that may be packed in one inside container is 50 and in one outside packaging is 500. The gross weight of the package may not exceed 150 pounds or the maximum gross weight allowed in the specification for the outside packaging used, whichever is less.

(c) All other unspecified types of detonating primers must be packed in pasteboard cartons or in individual pasteboard, metal, plastic or wooden tube inside containers. The inside containers must be packed in an outside packaging specified in paragraph (d) of this section.

(1) The maximum number of unspecified detonating primers that may be packed in one inside container is 50 and in one outside packaging is 500. The gross weight of the package may not exceed 150 pounds or the maximum gross weight allowed in the specification for the outside packaging used, whichever is less.

(d) Detonating primers either with or without inside containers, as provided for in this paragraph, must be packed in one of the following outside packagings:

(1) DOT specification 14, 15A, or 16A (§§ 178.166, 178.168, 178.185 of this subchapter) wooden box.

(2) DOT specification 12H, 23F, or 23H (§§ 178.209, 178.214, 178.219 of this subchapter) fiberboard box.

(e) Each outside packaging of detonating primers must be closed or sealed in such a manner as to discourage pilferage and to prevent loss of the contents.

(f) Each outside packaging of detonating primers must be plainly marked "Detonating Primers—Handle Carefully," and must bear the appropriate label specified in § 172.411 of this subchapter.

(g) Nothing in this section shall prohibit the consolidation of properly prepared packages by banding together, palletizing, or placing in an overpack or freight container providing all applicable requirements of this subchapter are met.

7. In § 173.100 paragraph (bb) would be amended by removing the words "or commercial users" in the third sentence; paragraphs (gg), (hh), and (ii) would be added to read as follows:

§ 173.100 Definition of Class C explosives.

(gg) Commercial detonators (§ 173.53 (g)(1)), that contain an explosive charge, excluding delay and ignition charges, of not more than 3.0 grams per unit and when packed for shipment will undergo only limited propagation care classed as Class C explosives. Limited propagation means that if one commercial detonator, near the center of a shipping container is exploded, the aggregate weight of explosives, excluding ignition and delay charges in this and all additional commercial detonators in the shipping container that explode may not exceed 25 grams. Commercial detonators which mass detonate in the shipping container may not be classed as Class C explosives.

(hh) Detonating primers (§ 173.53 (g)(2)) in which the total explosive charge per unit does not exceed 25 grams and, which when packed for shipment, will undergo only limited propagation, are classed as Class C explosives. Limited propagation means that if one detonating primer near the center of a shipping container is exploded, the aggregate weight of explosives, excluding ignition and delay charges, in this and all additional detonating primers in the shipping container that explode may not exceed 25 grams. Detonating primers which mass detonate in the shipping container may not be classed as Class C explosives. For the purposes of this paragraph, "mass detonate" means that more than 90 percent of the devices tested in a package explode practically simultaneously.

(ii) It must be demonstrated by actual tests that commercial detonators and detonating primers which are to be offered for transportation as Class C explosives meet the requirements of paragraph (gg) or (hh) of this section, as appropriate. Testing must be done or approved by:

- (1) Bureau of Explosives, or
- (2) Department of Energy.

(3) A copy of the test data must be filed with the Office of Hazardous Ma-

terials Operations before any type of commercial detonator or detonating primer is offered for transportation as a Class C explosive.

8. § 173.103 would be deleted and a new 173.103 would be added to read as follows:

§ 173.103 Commercial detonators, Class C explosives and detonating primers, Class C explosives.

Commercial detonators, Class C explosives and detonating primers, Class C explosives must be packed according to the applicable requirements of § 173.66 and § 173.68.

PART 174—CARRIAGE BY RAIL

9. In § 174.81(a), the table would be amended by deleting the heading "blasting caps, with or without safety fuze (including electric blasting caps), detonating primers" in the fourth entry of both vertical and horizontal columns and substituting therefor "commercial detonators, detonating primers;" footnotes a and e would be revised to read as follows:

§ 174.81 Segregation and separation requirements for hazardous materials in rail cars.

(a) * * *

*Commercial detonators, Class C explosives may also be loaded and transported with articles named in vertical and horizontal columns 3, 9, 10, 11, 12, and 13. Loading and transportation of commercial detonators, or detonating primers in any quantity with articles named in vertical or horizontal columns b, c, e, or f is prohibited.

*Does not include nitro carbo nitrate or ammonium nitrate, fertilizer grade, which may be loaded, transported, or stored with high explosives, or with commercial detonators containing not more than 3 grams of explosives each, excluding ignition and delay charges.

10. In § 174.101 the first sentence of paragraph (h) would be amended; paragraph (m) would be deleted as follows:

§ 174.101 Loading explosives.

(h) At stations or other loading points, packages containing any explosives for which a certified and placarded car is prescribed (see § 174.104), any commercial detonators or detonating primers must be securely blocked and braced to prevent the packages from changing position, falling to the floor, or sliding into each other, under conditions normally incident to transportation. * * *

(m) Deleted

11. § 174.106 paragraphs (a) and (b) would be revised to read as follows:

§ 174.106 "Order-Notify" or "C.O.D." shipments, Class A explosives.

(a) A carrier may not accept for transportation Class A explosives, commercial detonators, or detonating primers in any quantity when consigned to "order-notify" or "C.O.D.," except on a through bill of lading to a place outside the United States.

(b) A carrier may not accept for transportation Class A explosives, commercial detonators, or detonating primers which the shipper consigns to himself unless the shipper has a resident representative to receive them at the delivery point.

12. In § 174.115 paragraph (a) would be revised to read as follows:

§ 174.115 Loading Class C explosives.

(a) Class C explosives may be loaded into any closed car in good condition, or into any container car in good condition. No car certificates are required. Packages of Class C explosives must be blocked and braced to prevent their movement and possible damage due to movement of other freight during transportation. For methods of recommended blocking and bracing, see Bureau of Explosives pamphlet No. 6.

PART 175—CARRIAGE BY AIRCRAFT

13. In § 175.320 paragraph (a), the table would be amended by deleting the first two entries and adding the following in place thereof:

§ 175.320 Cargo-only aircraft; only means of transportation.

(a) * * *

Material description	Class and conditions
Commercial detonators and detonating primers.	Class A explosives—Permitted only when no other cargo is aboard the aircraft. However, if the commercial detonators or detonating primers are packed in an IME 22 container (see 49 CFR 171.7(d)(9), of this subchapter), they may be transported in the same aircraft with materials that are not classed as hazardous materials.
Do.....	Class C explosives—Permitted only when no other cargo is aboard the aircraft. However, if the commercial detonators or detonating primers are packed in a DOT MC 201 container (see 178.318 of this subchapter) or an IME 22 container (see 171.7(d)(9) of this subchapter), they may be transported in the same aircraft with materials other than class A or class B explosives.

PART 176—CARRIAGE BY VESSEL

14. In § 176.9 the introductory text of paragraph (a) would be revised to read as follows:

§ 176.9 "Order-Notify" or "C.O.D." shipments.

(a) A carrier may not transport Class A explosives, commercial detonators, or detonating primers which are—

§ 176.83 [Amended]

15. In § 176.83 paragraph (a), the table would be amended by deleting the words "blasting caps, with or without safety fuse, (including electric blasting caps)" in the fourth entry of both the vertical and horizontal columns and in place thereof add the words "commercial detonators."

16. In § 176.105 paragraph (d) would be revised to read as follows:

§ 176.105 Loading and unloading explosives.

(d) Commercial detonators, detonating primers, detonating fuzes, fulminate of mercury, and other initiating or priming explosives defined in this subchapter constitute a distinct type of explosives. They must be handled with extreme care. A chute and matress may not be used when loading or discharging this type of explosives.

17. In § 176.177 paragraphs (c) and (e) would be revised to read as follows:

§ 176.177 Magazine vessels.

(c) Location of explosives. Class A and Class B explosives in excess of 5,000 pounds stored in any magazine vessel must be stowed below deck. No explosive may be stowed on deck unless the vessel is fitted with a deck house having a stowage area which meets the requirements in this subpart for the stowage of explosives. Commercial detonators, Class A explosives and detonating primers, Class A explosives, may not be stored on the same magazine vessel with other Class A explosives or Class B explosives.

(e) Initiating explosives, commercial detonators and detonating primers. No initiating or priming explosive may be stowed in the same compartment with any other explosives when there is any high explosive on the same magazine vessel. Commercial detonators and

detonating primers must be stowed at least 25 feet from any bulkhead forming a boundary of a compartment containing any other explosives.

PART 177—CARRIAGE BY PUBLIC HIGHWAY

18. In § 177.835 the introductory text of paragraph (g), paragraphs (g)(2) (i), and (m) would be revised to read as follows:

§ 177.835 Explosives.

(g) No detonating primer may be transported on the same motor vehicle with any other type of Class A explosive or any Class B explosive. No commercial detonator may be transported on the same motor vehicle with any other type of Class A explosive or any Class B explosive unless—

(2) * * *

(i) The commercial detonators are in packagings as prescribed in § 173.66 of this subchapter which in turn are loaded into suitable portable containers or separate compartments. Both the detonators and the container or compartment must meet the requirements of the Institute of Makers of Explosives Standard entitled, "IME Standard for the Safe Transportation of Electric Blasting Caps in the Same Vehicle With Other Explosives" dated November 5, 1971 (IME Safety Library Publication No. 22)."

(m) Commercial detonators or other explosives. Any explosive, including desensitized liquid explosives as defined in § 173.53(e) of this subchapter, other than liquid nitroglycerin, desensitized nitroglycerin or diethylene glycol dinitrate, transported on any motor vehicle transporting liquid nitroglycerin, desensitized liquid nitroglycerin or diethylene glycol dinitrate, must be segregated, each kind from every other kind, and from tools or

other supplies. Commercial detonators must be packed in specification MC 201 (§178.318 of this subchapter) containers.

19. In § 177.848 paragraph (a), the table would be amended by deleting the words "blasting caps, with or without safety fuse (including electric blasting caps)," in the fourth entry of both the vertical and horizontal columns and in place thereof add the words "commercial detonators;" footnotes a and e would be revised to read as follows:

§ 177.848 Loading and storage chart of hazardous materials.

(a) * * *

*Commercial detonators, Class C explosives may also be loaded and transported with articles named in vertical and horizontal columns 3, 9, 10, 11, 12, and 13. Loading and transportation of commercial detonators or detonating primers except as prescribed in § 177.835, in any quantity with articles named in vertical or horizontal columns b, c, e, or f is prohibited.

*Does not include nitro carbo nitrate or ammonium nitrate, fertilizer grade, which may be loaded, transported, stored with high explosives, or with commercial detonators, containing not more than 3 grams of explosives each, excluding ignition and delay charges.

20. In § 177.870 paragraph (d) would be revised to read as follows:

§ 177.870 Regulations for passenger carrying vehicles.

(d) Hazardous materials on passenger carrying vehicles; quantity. Where no other practicable means of transportation are available, the following articles in the quantities as shown

may be transported in motor vehicles carrying passengers for hire in a space other than that provided for passengers: Not to exceed 100 pounds gross weight of any or all of the kinds of explosives permitted to be transported by passenger-carrying aircraft or rail car may be transported on a motor vehicle transporting passengers: *Provided, however,* That samples of explosives for laboratory examination, not to exceed two samples, or a total of not more than 100 commercial detonators, Class C explosives at one time in a single motor vehicle, may be transported in a motor vehicle transporting passengers.

PART 178—SHIPPING CONTAINER SPECIFICATIONS

§ 178.318 [Amended]

21. § 178.318 would be amended by deleting the words "blasting caps" or "electric blasting caps" in Heading, § 178.318-1(a), § 178.318-2(a) and (b) and replace them with the words "commercial detonators."

AUTHORITY: 49 U.S.C. 1803, 1804, 1806, 1808; 49 CFR 1.53(e)

NOTE.—The Materials Transportation Bureau has determined that this document does not contain a major proposal requiring preparation of an Economic Impact Statement under Executive Order 11821 and OMB Circular A-107.

Issued in Washington, D.C. on April 27, 1978.

ALAN I. ROBERTS,
*Director, Office of
Hazardous Materials Operations.*
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FEDERAL REGISTER, VOL. 43, NO. 87—THURSDAY, MAY 4, 1978

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