

than 150 mm (6 inches) apart. All stanchions and other unprotected structural members must be similarly clean and battened. The underside of the deck above the magazine must be clean and free of rust and scale, but need not be battened.

(d) The top of the stow within the magazine must be at least 30 cm (12 inches) from the underside of the deck above.

(e) A type A magazine constructed in the square of a cargo space may not be loaded from the top.

(f) When other Class 1 (explosive) materials are stowed with Class 1 (explosive) materials for which magazine stowage type A is required, they or their packagings may have no exposed external parts made of ferrous metal or aluminum alloy.

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**§ 176.133 Magazine stowage Type C.**

The construction requirements for magazine stowage type C are the same as for a closed cargo transport unit in §176.63(e). In addition, the magazine must be located as near as practicable to the centerline of the vessel and must not be closer to the vessel's side than a distance equal to one-eighth of the vessel's beam or 2.4 m (8 feet), whichever is less.

[69 FR 76184, Dec. 20, 2004]

**§ 176.134 Vehicles.**

Closed vehicles may be used to transport Class 1 (explosive) materials requiring magazine stowage when carried by vessel if they meet the requirements of the appropriate magazine stowage type. See §176.168 of this subpart for additional requirements relating to the transport of Class 1 (explosive) materials in vehicles.

**§ 176.136 Special stowage.**

(a) Special stowage is required for certain articles presenting both explosive and chemical hazards, such as smoke or lachrymatory (compatibility group G or H), toxic (compatibility group K), or substances and articles which present a special risk (compatibility group L). Except as permitted in paragraph (c) of this section, Class 1 (explosive) materials requiring special

stowage must be stowed on deck unless such stowage is impracticable and the COTP authorizes special stowage below deck. Where on deck stowage is recommended and an alternative stowage below deck is permitted by the COTP, the stowage must always be subject to special stowage.

(b) Class 1 (explosive) materials for which special stowage is required must be stowed as far away as practicable from living, accommodation, and working areas, and may not be overstowed. Closed cargo transport units in which such Class 1 (explosive) materials are stowed may not be located closer to the vessel's side than a distance equal to one-eighth of the vessel's beam or 2.4 m (8 feet), whichever is less.

(c) Class 1 (explosive) materials in compatibility groups G and H may be transported in steel magazines or in freight containers. If a freight container is used for this purpose, the floor of the freight container must be leakproof; for example, an all-metal container may be used and a fillet of cement or other material worked across the bottom of the door opening.

(d) Class 1 (explosive) materials stowed in one compartment may not be of more than one compatibility group, except the COTP may allow Class 1 (explosive) materials of compatibility groups G and H in separate steel magazines to be stowed in the same compartment, not less than 3 m (10 feet) apart.

(e) Class 1 (explosive) materials in compatibility groups K and L must be stowed in a steel magazine regardless of the stowage position in the vessel.

[69 FR 76184, Dec. 20, 2004]

**§ 176.137 Portable magazine.**

(a) Each portable magazine used for the stowage of Class 1 (explosive) materials on board vessels must meet the following requirements:

(1) It must be weather-tight, constructed of wood or metal lined with wood at least 2 cm (0.787 inch) thick, and with a capacity of no more than 3.1 cubic m (110 cubic feet).

(2) All inner surfaces must be smooth and free of any protruding nails, screws or other projections.

(3) If constructed of wood, a portable magazine must be framed of nominal 5

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cm × 10 cm (2×4 inch) lumber, and sheathed with nominal 20 mm (0.787 inch) thick boards or plywood.

(4) When constructed of metal, the metal must be not less than 3.2 mm (0.126 inch) thick.

(5) Runners, bearers, or skids must be provided to elevate the magazine at least 10 cm (3.9 inches) from the deck. Padeyes, ring bolts, or other suitable means must be provided for securing.

(6) If the portable magazine has a door or hinged cover, the door or cover must have a strong hasp and padlock or equally effective means of securing.

(7) The portable magazine must be marked on its top and four sides, in letters at least 8 cm (3 inches) high, as follows:

EXPLOSIVES—HANDLE CAREFULLY—KEEP LIGHTS AND FIRE AWAY.

(b) A portable magazine which meets the requirements for a type 2 or type 3 magazine under 27 CFR part 55 subpart K may be used for the stowage of Class 1 (explosive) materials on board vessels.

(c) A portable magazine with a capacity exceeding 3.1 m<sup>3</sup> (110 cubic feet) may be used for the stowage of Class 1 (explosive) materials under such construction, handling, and stowage requirements as the COTP approves.

[Amdt. 176-30, 55 FR 52696, Dec. 21, 1990, as amended at 66 FR 45185, Aug. 28, 2001]

**§ 176.138 Deck stowage.**

(a) [Reserved]

(b) Class 1 (explosive) materials may not be stowed within a horizontal distance of 6 m (20 feet) from any fire, machinery exhaust, galley uptake, locker used for combustible stores, or other potential sources of ignition. They must be clear of walkways and cargo working areas, fire hydrants, steam pipes, and means of access; away from all other facilities necessary for the safe working of the vessel, and not less than a horizontal distance of 8 m (26 feet) from the bridge, accommodation areas, and lifesaving appliances.

(c) Where vessels are fitted with container fastening arrangements, freight containers containing Class 1 (explosive) materials may be overstowed by containers of compatible Class 1 (explosive) materials or non-hazardous cargo.

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Where vessels are not fitted with container fastening arrangements, freight containers loaded with Class 1 (explosive) materials may be stowed only on the bottom tier of the stowage.

[Amdt. 176-30, 55 FR 52696, Dec. 21, 1990, as amended at 69 FR 76184, Dec. 20, 2004]

**SEGREGATION**

**§ 176.140 Segregation from other classes of hazardous materials.**

(a) Class 1 (explosive) materials must be segregated from other packaged hazardous materials in accordance with § 176.83.

(b) Class 1 (explosive) materials must be segregated from bulk solid dangerous cargoes in accordance with the IMDG Code (IBR, see § 171.7 of this subchapter). Notwithstanding § 176.83(b), ammonium nitrate and sodium nitrate may be stowed together with blasting explosives, except those containing chlorates, provided the mixed stowage is treated as blasting explosives (see § 176.410(e)).

[Amdt. 176-30, 55 FR 52696, Dec. 21, 1990, as amended at 68 FR 45041, July 31, 2003; 68 FR 75748, Dec. 31, 2003]

**§ 176.142 Hazardous materials of extreme flammability.**

(a) Except as allowed by paragraph (b) of this section, certain hazardous materials of extreme flammability may not be transported in a vessel carrying Class 1 (explosive) materials. This prohibition applies to the following liquid hazardous materials:

Carbon disulfide.	UN1131 ...	Class 3
Diethylzinc ...	UN1366 ...	Division 4.2
Dimethylzinc ...	UN1370 ...	Division 4.2
Magnesium alkyls.	UN3053 ...	Division 4.2
Methyl phosphonous dichloride, <i>pyrophoric liquid.</i>	NA2845 ...	Division 6.1
Nickel carbonyl.	UN1259 ...	Division 6.1
Pyrophoric liquid, inorganic, n.o.s..	UN3194 ...	Division 4.2