DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
1333 ISAAC HULL AVE SE
WASHINGTON NAVY YARD DC 20376-0001

IN REPLY TO

NAVSEAINST 8023.8C
Ser N714/719
28 Feb 03

NAVSEA INSTRUCTION 8023.8C

From: Commander, Naval Sea Systems Command

Subj: TRANSPORTATION OF DETONATORS AND HIGH EXPLOSIVES IN THE SAME MOTOR VEHICLE OR ABOARD THE SAME MILITARY AIRCRAFT

Ref: (a) Code of Federal Regulations, Title 49; Parts 171-178 Department of Transportation Regulations
(b) OPNAVINST 8027.1G
(c) AFINST 24-204 (NAVSUP PUB 505)

Encl: (1) Copy of Paragraph 177.835(g) of reference (a)
(2) Copy of Paragraph 178.318 (specification MC201 of reference (a))
(3) Certificate of Equivalency NA-02-513 of 12 Dec 02

1. Purpose

a. To provide guidance to DoN units when transporting detonators with other explosives in motor vehicles, as defined by reference (a).

b. To promulgate airlift guidance for the shipment of explosive material in support of contingency operations and exercises.

2. Cancellation. NAVSEAINST 8023.8B of 13 September 1988.

3. Scope. This instruction shall be adhered to by all Navy and Marine Corps personnel regarding packaging, handling, shipping, and storing explosives. Explosives means any substance, article, or device that is designated to function explosively (extremely rapid release of gas and heat) or which by chemical reaction within itself is able to function in a similar manner. This instruction is also applicable to contractors shipping such material on behalf of the DoN.

4. Background

a. Reference (b) delineates the responsibilities of the Navy and Marine Corps, with regard to operational and technical material, and administrative aspects of explosive ordnance disposal. In the past, there was considerable concern as to whether or not EOD teams could transport detonators in the same motor vehicle or aboard the same military aircraft with high explosives (dynamites and similar explosives).

b. Reference (a), as shown in enclosure (1), authorizes the transport of these noncompatible materials in the same motor vehicle with any Hazard Class/Division 1.1, 1.2 or 1.3 explosives when packed as specified therein.

5. Policy

a. Navy and Marine Corps personnel may transport detonators in the same motor vehicle with high explosives (dynamites and similar explosives), including all military service-approved explosives, in accordance with reference (a). Details of the pertinent Department of Transportation (DOT) Regulation are shown in enclosures (1) and (2). The MK 663 Mod 0 container meets DOT requirements and has been assigned Navy Container Certification Number NA-02-513. See enclosure (3).

b. Vehicles covered by this instruction are limited to Navy or Marine Corps owned conveyances and to conveyances owned by other operators that have been approved to transport explosives for the Department of Defense.

c. In accordance with reference (c), detonators packed in MC 201 or MK 663 Mod 0 containers may be shipped aboard the same military aircraft with high explosives in support of contingency operations and exercises. Table A18.2, Note 2 of reference (c) applies.

6. Action. Commanding Officers and Officers in Charge of Navy and Marine Corps activities shall comply with the transportation policy provided by the instruction.

P. M. BALISLE

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EXCERPT FROM CFR, TITLE 49

PARAGRAPH 177.835(g)

(g) No detonating assembly or booster with detonator may be transported on the same motor vehicle with any division 1.1, 1.2, or 1.3 material (except other detonator assemblies, boosters with detonators or detonators), detonating cord division 1.4 material or division 1.5 material. No detonator may be transported on the same motor vehicle with any division 1.1, 1.2, or 1.3 material (except other detonators, detonator assemblies or boosters with detonators), detonating cord division 1.4 material or division 1.5 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 in restricted to instances, when—

(i) There is no division 1.1, 1.2, 1.3, or 1.5 material loaded on the motor vehicle; and

(ii) A separation of 61cm (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 requires that-

(i) The detonators are in packaging as prescribed in 173.63 of this subchapter which in turn are loaded into suitable containers or separate compartments; and

(ii) That both the detonators and the container or compartment meet the requirements of the Institute of Makers of Explosives' Safety Library Publication No. 22 (incorporated by reference, see 171.7 of this subchapter).

EXCERPT FROM CFR, TITLE 49

PARAGRAPH 178.318

178.318 SPECIFICATION MC 201: Container for detonators and percussion caps.

178.318-1 Scope. (a) This specification pertains to a container to be used for the transportation of detonators and percussion caps in connection with the transportation of liquid nitroglycerin, desensitized liquid nitroglycerin or diethylene glycol dinitrate, where any or all of such types of caps may be used for the detonation of liquid nitroglycerin, desensitized liquid nitroglycerin or diethylene glycol dinitrate in blasting operations. This specification is not intended to take the place of any shipping or packing requirements of this Department where the caps in question are themselves articles of commerce.

178.318-2 Container. (a) Every container for detonators and percussion caps coming within the scope of this specification shall be constructed entirely of hard rubber, phenolresinous or other resinous material, or other nonmetallic, nonsparking material, except that metal parts may be used in such locations as not in any event to come in contact with any of the caps. Space shall be provided so that each detonator of whatever nature may be inserted in an individual cell in the body of the container, into which each such cap shall snugly fit. There shall be provided no more than twenty (20) such cellular spaces. Space may be provided into which a plurality of percussion caps may be carried, provided that such space may be closed with a screw cap and further provided that each or any such space is entirely separate from any space provided for any detonator. Each cellular space into which a detonator is to be inserted and carried shall be capable of being covered by a rotary cover so arranged as to expose not more than one cell at any time, and capable of rotation to such a place that all cells will be covered at the same time, at which place means shall be provided to lock the cover in place. Means shall be provided to lock in place the cover for the cells provided for the carrying of detonators. The requirement that not more than one cell be exposed at one time need not apply in the case of detonators, although spaces for such caps and detonators shall be separate. Sufficient annular space shall be provided inside the cover for such detonators that, when the cover is closed, there will be sufficient space to accommodate the wires customarily attached to such caps. If the material is of such a nature as to require

treatment to prevent the absorption of moisture, such treatment shall be applied as shall be necessary in order to provide against the penetration of water by permeation. A suitable carrying handle shall be provided, except for which handle no part of the container may project beyond the exterior of the body.

(b) Exhibited in plates I and II are line drawings of a container for detonators and percussion caps, illustrative of the requirements set forth in 178.318-2(a). These plates shall not be construed as a part of this specification.

DEPARTMENT OF THE NAVY
NAVAL SURFACE WARFARE CENTER
INDIAN HEAD DIVISION DETACHMENT EARLE
201 HIGHWAY 34 SOUTH
COLTS NECK, NJ 07722-5023

12 December 2002

CERTIFICATE OF EQUIVALENCY
NA-02-513
DETONATORS IN MK 663 CONTAINER

1. **AUTHORITY.** 49 CFR 173.7(a) and NAVSUPINST 4030.55B

2. **COMMODITY.** A quantity of up to ten (10) M6, M7 and / or MK 11 Mod 0 Blasting Caps. The following hazard classification has been assigned when the blasting caps are packaged in the MK 663 Container:
   a. Proper Shipping Name: Detonators for ammunition
   b. DOT Hazard Class: 1.4S
   c. UN Identification Number: 0366

   Note: Department of Transportation assigned EX number 9703119A applies.

3. **PACKAGING DESCRIPTION.** The MK 663 Container, configured in accordance with NAVSEA Drawing 53711-5206200, is a cylindrical stainless steel container having a screw-on aluminum cap. Gross weight of the container is approximately 15 pounds.
   a. DOT Marking: DETONATORS FOR AMMUNITION
      UN 0366 CCN NA 02-513
   b. DOT Label: 1.4S
   c. UN Performance Marking: (u n) 1A2 /Y7/S/**
      USA/DOD/NAD

   ** denotes year packed

4. **BASIS.** This Certification of Equivalency is based upon NSWC Crane Division Test Report DODPOPHM/USA/DOD/NADTR92107 that demonstrates the strength and adequacy of the MK 663 Container for transportation and handling. NAVEODFAC Test Plan 45-003-80 and accompanying test results dated 15 August 1980 verify total blast containment of up to ten blasting caps, providing an adequate basis of comparison to 49 CFR 178.318, Specification MC201 Container. All supporting data is on file at the Naval PHST Center.

5. **SPECIAL TRANSPORTATION REQUIREMENTS.**
   a. Shipping papers shall be annotated "Packaged in accordance with 49 CFR 173.7(a) by authority of CCN NA-02-513."
   b. A copy of this certificate shall accompany each shipment.
   c. Motor vehicle in accordance with 49 CFR 177 authorized. The MK 663 Container may be used to transport blasting caps in the same vehicle with other military service approved explosives in accordance with the provisions of NAVSEA Instruction 8023.8C.
   d. Military air in accordance with NAVSUP PUB 505/AFMAN 24-204,Table A18.2, Note 2 authorized. Containers shall be restrained to prevent movement during flight in accordance with the applicable aircraft Technical Order (TO) addressing restraint criteria.

6. **CERTIFYING OFFICIAL.**

R. A. DRESS
PHST Technical Data Management
NSWC Indian Head Div Det Earle

ENDORSING OFFICIAL.

A. V. STANTON
PHST Technical Data Management
Supervisor, NSWC Indian Head Div Det Earle