MEMORANDUM FOR Commander, Defense Technical Information Center, Building 5, Cameron Station, Alexandria, VA 22304-6145

SUBJECT: Release of Performance Oriented Packaging Compliance Report for Demolition Kit, Bangalore Torpedo: M1A2

1. The enclosed report (DOD POP HMTR/AYD 91-010 is hereby submitted to the Defense Technical Information Center for formal release. Notification of the formal release should be made to the letterhead address.

2. If there are any problems, questions, or comments regarding this report, contact Mr. Frank Sniezek at 201-724-2156 (DSN 880-2156).

Encl

ROBERT J. KUPER
Chief, Packaging Division

93-21541
**Performance Oriented Packaging Report for Demolition Kit, Bangalore Torpedo: M1A2**

**TYPE OF REPORT**
Final

**DATE OF REPORT**
93-09-07

**PAGE COUNT**
3

**ABSTRACT**
This POP report is for the Demolition Kit, Bangalore Torpedo: M1A2 which is packaged one demolition kit/MIL-B-2427 wood box.
I. REPORT NUMBER: DOD POP HMTR/AYD 91-010

II. TITLE: Performance Oriented Packaging Report for Demolition Kit, Bangalore Torpedo: M1A2

AUTHOR: Frank M. Sniezek

PERFORMING ACTIVITY: ARDEC

ADDRESS: Department of the Army
         ARDEC, SMCAR-AEP
         HQ, U.S. Army Armament, Munitions, and Chemical Command
         Picatinny Arsenal, NJ 07806-5000

DATE: 7 September 93

Approved for public release; distribution is unlimited
1. DATA SHEET

CONTAINER
Type: Box
UN Code: 4C1
Nomenclature: Box, Packing, Ammunition for Kit, Demolition, Bangalore Torpedo, M1A2
Specification Number: Type II, Grade A, Class 5, Mil-B-2427
Drawing Number: 9216100
Material: Wood
Gross Weight: 198 pounds
Outside Dimensions: 65 5/8 x 15 5/16 x 7
Inside Dimensions: 60 3/8 x 13 3/4 x 4 9/16

PRODUCT
Name: Demolition Kit, Bangalore Torpedo, M1A2
Drawing Number: 8863370
United Nations Number: 0034
Physical State: Solid
Amount per Container: 1

2. BACKGROUND, TESTS, AND RESULTS
Reference the following document:
  a: 49CFR, October 1, 1991 Edition

A Stacking Test was conducted on three containers packaged with 1 1/2 inch nominal, schedule 40 pipe, to simulate the torpedoes. The gross weight of the packed box was 206 pounds which exceeds the gross weight of the packaged bangalore torpedoes which is 198 pounds. A stacking weight applied to each of the containers was 3502 pounds for 24 hours. This weight exceeds the minimum requirement for a 10 foot stack height which is 3394 pounds.

A Loose Cargo Test was conducted on the same three containers, previously tested in the Stacking Test for one hour. The packages were tested at a vibration table frequency such that the bottom of the packages were raised a minimum of 1/16 inch.

The Four Foot Drop Test was conducted. One of the containers, previously tested in the Stacking and Loose Cargo Tests was dropped at orientations of top, bottom, long side, short side, and 45 degrees on the top. Since the results of the 45 degree top drop orientation was marginal, it was decided to retest using live charges. Three containers packaged with live charges were dropped 45 degrees at orientations of top corner of the hasp side of the box, top corner on the hinge side of the box, and bottom corner of the hasp side of the box.

The test results indicated no leakage or spillage of the contents from the containers following the tests conducted, meeting the requirements of the 49CFR.