

**Subject:** FW: (AIN) 063-10, GUIDANCE ON SHIPPING DEPLETED URANIUM (DU) PENETRATOR MUNITIONS  
**Attachments:** AIN063-10C (CAA2002090017-Rev2).pdf; AIN063-10D (COE AY09-076 DU).pdf; AIN063-10E (ACV00832).pdf; AIN063-10A (SP 9649-Rev11-Auth Ltr).pdf; AIN063-10B (SP 9649-Rev 11-Offer).pdf  
**Importance:** High

-----Original Message-----

From: Caskey, Steve Mr CIV USA AMC  
Sent: Monday, March 22, 2010 1:00 PM  
To: ROCK-JMC-NAR  
Subject: (AIN) 063-10, GUIDANCE ON SHIPPING DEPLETED URANIUM (DU) PENETRATOR MUNITIONS  
Importance: High

//UNCLASSIFIED//

221733Z Mar 10

FROM CDR JMC ROCK ISL IL//AMSJM-QAS//

740 (A)

SUBJECT: AMMUNITION INFORMATION NOTICE (AIN) 063-10, GUIDANCE ON SHIPPING DEPLETED URANIUM (DU) PENETRATOR MUNITIONS

1. AIN 062-10 WAS TRANSMITTED ON 181808Z Mar 10.
2. THIS AIN SUPERSEDES AIN 037-10.
3. DODIC: A675/A676/A979/A983/A986/AB20/B102/B103/B117/B128/C380/C523/C524/C543/C783/C786/C792/CA26
4. REFERENCES.
  - A. DEPARTMENT OF TRANSPORTATION SPECIAL PERMIT (DOT-SP) NUMBER 9649, 1 MAY 2008.
  - B. TITLE 49 CODE OF FEDERAL REGULATIONS (CFR), PARTS 172.700-704 AND 173.427.
  - C. DEFENSE TRANSPORTATION REGULATION (DTR), 4500-9R, CHAPTER 204.
  - D. NUCLEAR REGULATORY COMMISSION (NRC) LICENSE NUMBER SUC-1380, TITLED, "NRC LICENSE AND APPLICATION FOR POSSESSION OF DEPLETED URANIUM AS CARTRIDGE PENETRATORS".
  - E. SB 742-1, AMMUNITION SURVEILLANCE PROCEDURES, 1 SEPTEMBER 2008.
5. REQUEST THIS AIN BE DISSEMINATED TO ALL PERSONNEL INVOLVED IN SHIPPING AND RECEIVING DEPLETED URANIUM (DU) PENETRATOR TYPE MUNITIONS AND COORDINATED WITH THE INSTALLATION RADIATION SAFETY OFFICER (RSO).
6. REFERENCED DOT-SP 9649 (FORMERLY DOT-E 9649) PROVIDES DOD LIMITED RELIEF FROM RADIOACTIVE MATERIAL SHIPPING REGULATIONS WHEN SHIPPING/RECEIVING DU MUNITIONS. MAJOR CHANGES TO DOT-SP 9649 WILL TAKE EFFECT 1 MAY 2010. THIS AIN PROVIDES SUPPLEMENTAL GUIDANCE TO THE DOT-SP AND IS TO TAKE EFFECT ON THE SAME DATE. THE PRIMARY CHANGE TO THE SP WILL BE THE REQUIREMENT FOR RADIOACTIVE YELLOW-II SHIPPING LABELS. THERE ARE NO CHANGES TO THE EXPLOSIVE SHIPPING

REQUIREMENTS. SINCE A COPY OF DOT-SP 9649 AND THE DOT-SP 9649 AUTHORIZATION LETTER MUST ACCOMPANY EACH SHIPMENT, A CURRENT COPY OF EACH SHOULD BE KEPT ON-HAND. ADDITIONALLY, FOR INTERNATIONAL SHIPMENTS OF DU MUNITIONS A COPY OF COMPETENT AUTHORITY APPROVAL (CAA) 2002090017 MUST ACCOMPANY THE SHIPMENT. COPIES OF THE DOT-SP 9649, THE AUTHORIZATION LETTER AND CAA 2002090017 ARE ATTACHED (SEE AIN IMAGES 063-10A THRU 063-10C).

7. THE FOLLOWING GUIDANCE SUPPLEMENTS DOT-SP 9649 (ADDITIONAL GUIDANCE MAY BE OBTAINED FROM LOCAL RSO OR NUCLEAR, BIOLOGICAL AND CHEMICAL OFFICER).

A. WIPE TESTING PRIOR TO SHIPMENT.

(1) SHIPMENTS OF DU CONTAINERIZED MUNITIONS REQUIRE WIPE TESTING FOR POSSIBLE DU CONTAMINATION. EACH SHIPPING DOCUMENT WILL HAVE A SURVEY RECORD THAT SHOWS WIPE TEST WAS MADE. WHEN SHIPPING DOCUMENTS INCLUDE MULTIPLE CONVEYANCES AT LEAST ONE PALLET WILL BE WIPE-TESTED PER CONVEYANCE. CHECK WIPES WITH A RADIATION DETECTION INSTRUMENT AND RECORD THE RESULTS ON SURVEY FORM. RADIATION DETECTION INSTRUMENTS MUST BE IN-CALIBRATION AND ALL PRE-OPERATIONAL CHECKS MADE IN ACCORDANCE WITH THE INSTRUMENT OPERATING INSTRUCTIONS. THESE STEPS WILL ALSO BE FOLLOWED WHEN SHIPPING AN INDIVIDUAL CONTAINER.

(2) PALLET/CONTAINERS WITH WIPE VALUES AT LEAST TWICE BACKGROUND MUST BE DECONTAMINATED PRIOR TO LOADING INTO THE CONVEYANCE. CONTACT YOUR LOCAL RSO FOR DECONTAMINATION GUIDANCE. THE RSO WILL INFORM THE LICENSE RSO, AMSJM-SF (SEE PARAGRAPH 8 FOR CONTACT INFORMATION).

(3) IF ELEVATED READINGS ARE FOUND, THOSE WIPES SHOULD BE PLACED IN A PLASTIC BAG AND IDENTIFIED TO THE RSO. THE RSO WILL SEND THE WIPES TO A LAB FOR ANALYSIS. WIPES THAT DO NOT EXHIBIT READINGS ABOVE BACKGROUND CAN BE DISCARDED IN THE REGULAR TRASH.

(4) SURVEY RECORDS WITH WIPE TEST RESULTS SHALL BE MAINTAINED FOR 3 YEARS. WITH RESPECT TO WIPE TESTING, THE SURVEY RECORD SHALL INCLUDE; WIPE READING, INSTRUMENT USED, CALIBRATION DATE, BACKGROUND READING, PERSON PERFORMING TEST, AND THE RSO'S SIGNATURE. ATTACH ANY LAB RESULTS TO YOUR INITIAL WIPE PAPERWORK WHEN THE RESULTS ARRIVE.

B. RECEIVING.

(1) INSPECT PALLETS/CONTAINERS FOR DAMAGE OR CORROSION WITHIN 3 HOURS OF RECEIPT, OR WITHIN 3 HOURS OF START OF NEXT WORK DAY IF SHIPMENT ARRIVES AFTER NORMAL DUTY HOURS.

(2) PALLETS/CONTAINERS OF DU MUNITIONS DO NOT REQUIRE WIPE TEST, UNLESS THERE IS EVIDENCE OF DAMAGE OR CORROSION PRODUCT.

(3) THE BED OF THE CONVEYANCE MUST BE SCANNED WITH AN RADIATION DETECTION INSTRUMENT AFTER PALLETS/CONTAINERS ARE REMOVED.

C. TRAINING.

(1) PERSONNEL CERTIFYING DU AMMUNITION SHIPMENTS MUST MEET THE TRAINING REQUIREMENTS IN REFERENCE 4C.

(2) OTHER PERSONNEL INVOLVED WITH SHIPPING/RECEIVING OPERATIONS MUST HAVE AWARENESS TRAINING PER REFERENCES 4B AND 4C.

D. RADIOACTIVE LABEL ENTRIES WHEN SHIPPING FULL OR LIGHT PALLETS. EACH PALLET OF DU PENETRATOR TYPE MUNITIONS SHIPPED AFTER 1 MAY 2010 MUST HAVE ONE (AND ONLY ONE) RADIOACTIVE YELLOW-II LABEL. LOCATE THE LABEL IAW THE PALLET DRAWING ACV00832. THIS DRAWING IS ATTACHED (AIN IMAGE 063-10E). FOR THE CNU-332 CONTAINER, THEY WILL BE CONSIDERED PALLETS WHEN BOLTED/ATTACHED TOGETHER. LABELS MUST BE OBTAINED LOCALLY. IAW DRAWING ACV00832 THE FOLLOWING

WILL BE ENTERED ON LABEL FOR PALLETS REGARDLESS OF MODEL/DODIC OF DU AMMUNITION BEING SHIPPED (NOTE Bq IS ABBREVIATION FOR BECQUEREL):

CONTENTS: U(DEP)  
ACTIVITY: 4.2E+9 Bq  
TRANSPORTATION INDEX: 0.7

E. LABEL ENTRIES WHEN SHIPPING INDIVIDUAL UNPALLETIZED AMMUNITION CONTAINERS OR A SINGLE CNU-332 CONTAINER. THE DOT-SP 9649 CANNOT BE USED TO SHIP INDIVIDUAL CONTAINERS AND ALL REQUIREMENTS FOR SHIPPING EXPLOSIVE AND RADIOACTIVE MUST BE MET. COVER THE DOT-SP 9649 OR DOT-E 9649 MARKING FOR THAT SHIPMENT. THE FOLLOWING INFORMATION SUPPLEMENTS REQUIREMENTS FOUND IN 49 CFR 173.427.

(1) EACH INDIVIDUAL CONTAINER OFFERED FOR SHIPMENT MUST HAVE TWO RADIOACTIVE YELLOW-II LABELS PLACED ON OPPOSITE SIDES (NOT TOP AND BOTTOM) OF THE AMMUNITION SHIPPING CONTAINER.

(2) THE LABEL ENTRY FOR CONTENT WILL BE THE SAME AS IN PARAGRAPH 7D ABOVE, BUT THE ACTIVITY AND TRANSPORT INDEX WILL BE DIFFERENT FOR EACH MODEL/DODIC.

(3) THE ACTIVITY VALUE DEPENDS ON THE AMOUNT OF DU IN THE CONTAINER. FOR A TANK ROUND CONTAINER THE ACTIVITY VALUE WILL BE REPRESENTATIVE OF THE SINGLE PENETRATOR IN THAT CONTAINER. FOR MEDIUM CALIBER MUNITIONS THE ACTIVITY WILL BE THE SUM OF THE ACTIVITIES OF ALL THE PENETRATORS IN THE CONTAINER. INDIVIDUAL ACTIVITY VALUES ARE LISTED IN PARAGRAPH 9 BELOW.

(4) THE TRANSPORT INDEX (TI) IS A UNIT-LESS NUMBER OBTAINED BY TAKING A RADIATION LEVEL READING AT ONE METER FROM THE CONTAINER WITH A RADIATION DETECTION INSTRUMENT THAT READS-OUT IN mR/hr. USE THE HIGHEST LEVEL MEASURED. THE UNIT-LESS NUMBER ENTERED ON THE LABEL MUST BE ROUNDED UP TO THE NEXT TENTH, E.G. 0.72 WOULD BE 0.8. THIS NUMBER MAY BE DIFFERENT FOR EACH MODEL/DODIC.

F. CREATING PALLETS OF PREVIOUSLY SHIPPED INDIVIDUAL CONTAINERS. ONLY ONE YELLOW-II LABEL CAN BE ON A PALLET OF DU MUNITIONS. THUS, IF A PALLET IS TO BE CREATED FROM PREVIOUSLY SHIPPED INDIVIDUAL CONTAINERS, ALL LABELS ON THOSE CONTAINERS MUST BE REMOVED/OBLITERATED PRIOR TO SHIPMENT.

(1) FULL OR LIGHT PALLET LOADS OF CURRENTLY MARKED OLD STOCK WITH DOT-E 9649 NUMBER ON THE INDIVIDUAL CONTAINER AND/OR PALLET DATED PRIOR TO 1 MAY 2010, MAY CONTINUE TO BE SHIPPED UNDER THE DOT-SP 9649 SPECIAL PERMIT. THE SHIPPING PAPERS WILL STATE DOT-SP 9649 AND COE 09-76, BUT COE 09-76 WILL PERMIT THE USE OF MARKING BOARDS ON TWO SIDES OF THE PALLET LOAD STATING THE DOT-SP 9649 AND THE COE NUMBER. THE REQUIRED MARKINGS ON THESE BOARDS WILL BE SPECIFIED IN COE 09-76, TO INCLUDE THAT LABELS ARE REQUIRED IAW DRAWING ACV00832. THE COE IS ATTACHED (AIN IMAGE 063-10D).

8. REFERENCED NRC LICENSE IS MANAGED BY THE SAFETY/RAD WASTE DIRECTORATE (AMSJM-SF) OF THE US ARMY JOINT MUNITIONS COMMAND (JMC). IN ADDITION TO YOUR CHAIN OF COMMAND, AMSJM-SF MUST BE NOTIFIED OF ACCIDENTS OR INCIDENTS INVOLVING DU MUNITIONS. CONTACT GARY BUCKROP OR KELLY CROOKS, DSN 793-2969 OR 0338 OR 2989, COMMERCIAL 309-782-XXXX, EMAIL ROCK-AMSJM-SF@CONUS.ARMY.MIL.

9. THE FOLLOWING AMMUNITION ITEMS CONTAIN DU CARTRIDGE PENETRATORS. THE ACTIVITY VALUES ARE IN UNITS OF BECQUEREL (Bq) AND ARE FOR INDIVIDUAL ROUNDS.

DODIC	MODEL	SIZE	ACTIVITY (Bq)	DODIC	MODEL	SIZE	ACTIVITY (Bq)
A675	MK149	20MM	9.84E+05	C523	M774	105MM	4.73E+07
A676	MK149	20MM	9.84E+05	C524	M833	105MM	5.15E+07
A986	M919	25MM	1.24E+06	C543	M900	105MM	5.31E+07
A983	PGU-20	25MM	2.08E+06	C783	M827	120MM	4.40E+07

A979	PGU-20	25MM	2.08E+06	C786	M829	120MM	5.62E+07
B102	PGU-14	30MM	4.25E+06	C380	M829A1	120MM	6.47E+07
B103	PGU-14	30MM	4.25E+06	C792	M829A2	120MM	6.79E+07
B117	PGU-14	30MM	4.25E+06	CA26	M829A3	120MM	9.42E+07
B128	PGU-14	30MM	4.25E+06				
AB20	PGU-14	30MM	4.25E+06				

10. SPECIFIC DOCUMENTS (DOT-SP 9649 REV 11; CAA2002090017; COE AY 09-076; DRAWING NO. ACV00832; AND THE DOT-SP 9649 AUTHORIZATION LETTER IDENTIFIED IN THIS AIN ARE ELECTRONICALLY STORED IN THE SDDC SAFETYNET SYSTEM WHICH IS AVAILABLE WITHIN THE SDDC ELECTRONIC TRANSPORTATION ACQUISITION (ETA) PORTAL. GO TO [HTTPS://ETA.SDDC.ARMY.MIL/ETASSOPORTAL/DEFAULT.ASPX](https://eta.sddc.army.mil/etassoportal/default.aspx). SELECT: REGISTER FOR ACCESS, FIRST TIME REGISTRATION FOR THOSE WITHOUT ETA ACCOUNTS, SELECT FREIGHT CARGO, DROP DOWN MENU UNTIL YOU SEE SAFETYNET, THEN SELECT GENERATE FORM.

11. THE POCS ARE DALE PETESCH, AMSJM-QAS, DSN 793-6423, E-MAIL DALE.PETESCH@US.ARMY.MIL, AND GIL CASILLAS, AMSJM-LIT, DSN 793-4762, EMAIL GIL.CASILLAS@US.ARMY.MIL.

12. THIS AIN EXPIRES 31 JAN 2012 UNLESS OTHERWISE RESCINDED OR SUPERSEDED.

//SIGNED//  
 JOHN W. GRAY  
 CHIEF, AMMUNITION SURVEILLANCE DIVISION

THE FOLLOWING DOCUMENTS ARE REFERENCED IN AIN 063-10 AND  
ATTACHED HERE

- \* DOT-SP 6949 Authorization Letter, 1 May 2008
- \* DOT-SP 9649, 1 May 2008
- \* CA 2002090017 Approval, 1 May 2008
- \* COE AY 09-076, 2 March 2010
- \* Drawing No. ACV00832, 1 Feb 2010



U.S. Department  
of Transportation

East Building, PHH - 30  
1200 New Jersey Avenue, Southeast  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety Administration**

SPECIAL PERMIT AUTHORIZATION

DOT-SP 9649

**EXPIRATION DATE: April 30, 2012**

GRANTEE: Department of Defense (DOD)  
Fort Eustis, VA

In response to your May 12, 2006 application for Special Permit DOT-SP 9649, Department of Defense (DOD) is hereby granted authorization under DOT-SP 9649 in accordance with 49 CFR § 107.105.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at [http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm). Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

If you have questions regarding this action please call the Office of Hazardous Materials Special Permits and Approvals at (202) 366-4535.

Issued in Washington D.C. on May 1, 2008.

for Theodore L. Willke  
Associate Administrator  
for Hazardous Materials Safety

May 1, 2008



U.S. Department  
of Transportation

East Building, PHH-30  
1200 New Jersey Avenue S.E.  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 9649  
(ELEVENTH REVISION)

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: (See individual authorization letter)
2. PURPOSE AND LIMITATION:
  - a. This special permit authorizes the transportation in commerce of munitions which contain components manufactured of depleted uranium metal, classified as Class 1 with a subsidiary hazard of Class 7, subject to the limitations and special requirements specified herein.
  - b. This special permit authorizes alternate radiation levels, markings, and sheathing for munitions packaged as prescribed by this special permit and transported with the subsidiary hazard of "Radioactive material, excepted package - articles manufactured from depleted uranium." This relief is authorized until May 1, 2010; or until May 1, 2012 for munitions located outside the continental United States (OCONUS) at any time during calendar years 2008 through 2010. After May 1, 2010, transport of all newly manufactured and continental United States (CONUS)- based depleted uranium munitions must be in compliance with paragraph 4.b. of this special permit.
  - c. This special permit authorizes alternate radioactive material marking, labeling, and shipping paper documentation for all munitions packaged as prescribed by this special permit and transported with the subsidiary hazard of "Radioactive material, low specific activity material (LSA-I)." After May 1, 2010, transport of all newly manufactured and CONUS-based depleted uranium munitions must be in compliance with paragraph 4.b. of this special permit.

d. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.

e. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce.

f. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED:

a. 49 CFR §§ 173.421(a)(2); 173.421(a)(4); 173.422(a); 173.426(b); 173.426(c); and 173.426(d) in that packages containing munitions with the subsidiary hazard of "Radioactive material, excepted package - articles manufactured from depleted uranium" are not required to: 1) be limited to an external surface radiation level of not more than 0.005 mSv/hr (0.5 mrem/hr), 2) bear a marking with the word "Radioactive" on or inside the package, 3) be marked with the UN identification number, and 4) be sheathed around the depleted uranium component; or

b. 49 CFR §§ 172.203(d)(3); 172.203(d)(5); 172.300(a); 172.301(d); 172.310(a); 172.310(b); 172.310(c); 172.403(a); 172.403(b); 172.403(c); 172.403(f); 172.403(g)(2); 172.403(g)(3); and 172.406(e) in that individual packages and freight containers containing munitions packaged as prescribed by this special permit and transported with the subsidiary hazard of "Radioactive material, low specific activity material (LSA-I)" are not required to be marked and labeled, unless shipped individually. Under the provisions of this special permit, each unitized/palletized group of packages must bear at least one label. The activity and transport index quantities entered on the label and shipping document may be either actual quantities or, as long as there is only one type of munition on the pallet, then greater than actual quantities may be entered. Activity and transport index quantities greater than actual entered on the label and shipping document must be representative of no more than a full unitized/palletized group of packages.

**May 1, 2008**

Under the provisions of this special permit, each unitized/palletized group of packages must bear at least one set of required consignor or consignee name and address, gross mass marking. No package type (TYPE IP-1) or country of origin code (USA) marking is required.

5. BASIS: This special permit is based on the appeal of the U.S. Department of Defense dated May 11, 2006 submitted in accordance with § 107.125
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<b>Hazardous Materials Description</b>			
<b>Proper Shipping Name</b>	<b>Hazard Class/Division</b>	<b>Identification Number</b>	<b>Packing Group</b>
Cartridges for weapons, inert projectile	1.2C	UN0328	II
Cartridges for weapons, inert projectile	1.3C	UN0417	II
Cartridges for weapons, inert projectile	1.4C	UN0339	II
Cartridges for weapons, <i>with bursting charge</i>	1.2E	UN0321	II

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings must comply with 49 CFR 173.24 and the applicable general packaging requirements for explosives prescribed in 49 CFR 173.60. Packagings must meet or exceed IP - 1 requirements and satisfy the design requirements of 49 CFR 173.410.

b. OPERATIONAL CONTROLS -

1. For packages shipped under paragraph 4.a. of this special permit, the maximum radiation level on any external surface of the package, overpack or unitized/palletized group of packages must not exceed 0.025 mSv/hr (2.5 mrem/hr).

**May 1, 2008**

2. For packages shipped under paragraph 4.b. of this special permit, the maximum radiation level on any external surface of the package, overpack or unitized/palletized group of packages must not exceed 0.030 mSv/hr (3.0 mrem/hr).

3. Security measures for transport must be implemented in accordance with Department of Defense Regulation 4500.9R, Part II.

c. HAZARD COMMUNICATION -

1. For packages shipped under paragraph 4.b. of this special permit, each unitized/palletized group of packages of munitions must bear at least one radioactive material label which has been selected based on the surface radiation level and transport index of the pallet. Individual packages do not require labeling, unless shipped individually.

2. For packages shipped under paragraph 4.b. of this special permit, the activity and transport index quantities entered on the label and shipping document may be either actual quantities or, as long as there is only one type of munition on the pallet, then greater than actual quantities may be entered. Activity and transport index quantities greater than actual entered on the label and shipping document must be representative of no more than a full unitized/palletized group of packages.

3. For packages shipped under paragraph 4.b. of this special permit, each unitized/palletized group of packages must bear at least one set of required consignor or consignee name and address, gross mass markings. No package type (TYPE IP-1) or country of origin code (USA) marking is required.

4. No placarding for the radioactive hazard is required.

8. SPECIAL PROVISIONS:

a. The product description on the shipping document for each consignment transported using paragraph 4.a of this special permit must include a statement that the consignment contains depleted uranium metal, the special permit number, and the identity and phone number of a Department of Defense authority familiar with the explosive and radiological hazards of the product.

- b. The product description on the shipping document for each consignment transported using paragraph 4.b of this special permit must include a statement that the consignment contains Radioactive material, low specific activity (LSA-1) depleted uranium metal, the special permit number, and the identity and phone number of a Department of Defense authority familiar with the explosive and radiological hazards of the product.
- c. Each package or unitized/palletized group of packages must be conspicuously marked "DOT-SP 9649" with figures at least 1" (2.5 cm) high.
- d. The authorization provided by this special permit is limited to shipments by or for the U.S. Department of Defense. Persons offering hazardous materials under this special permit must have party status to this special permit in accordance with § 107.107.
- e. Guidelines for Emergency Response personnel must be incorporated into shipping document when paragraph 4.b of this special permit is utilized, indicating the appropriate instructions to follow from the Department of Transportation Emergency Response Guide Numbers 112 and 114.
- f. Each person offering shipments under this special permit must provide a current copy of the special permit to the carrier as part of any required shipping documents.
- g. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.
- h. Packagings permanently marked "DOT-E 9649", may continue to be used under this special permit for the remaining service life of the packaging or until the special permit is no longer valid. Packagings marked after May 1, 2010 must be marked "DOT-SP 9649".
- i. Shipping documents displaying "DOT-E 9649" may continue to be used until May 1, 2010, provided the special permit remains valid.
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, and cargo vessel.

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel or motor vehicle used to transport packages covered by this special permit.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
  - o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
  - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
  - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Theodore L. Willke  
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at [http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm). Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.



**APPROVAL CA2002090017**  
**SECOND REVISION**  
**ISSUED BY THE COMPETENT AUTHORITY OF THE UNITED STATES**  
**EXPIRATION DATE: (SEE DOT-SP 9649)**

1. **APPROVAL HOLDER:** U.S. Department of Defense  
709 Ward Drive, Building 1990  
Attn: SDDC-SA Work Station 2W214-29  
Scott Air Force Base IL 62225
  
2. **REGULATORY AUTHORITY:**
  - a. Chapter 7.9, Section 7.9.2 of the International Maritime Dangerous Goods (IMDG) Code.
  - b. IMO MSC/Circ. 1075, Granting Exemptions from the Provisions of the International Maritime Dangerous Goods (IMDG) Code
  
3. **SYNOPSIS:** This Competent Authority Approval, referred to hereafter as approval, serves as an “approval” as defined in 49 CFR 171.8 and an “authorization” by a competent authority in accordance with special provision 288 and 7.9.2 of the IMDG Code.

The U.S. Department of Defense (DOD) is authorized to offer for transportation munitions which contain components manufactured of depleted uranium metal, classified as Class 1 with a subsidiary hazard of Class 7 that conform to the requirements of the United States Department of Transportation's Special Permit DOT-SP 9649 and in accordance with the provisions of this approval.

4. **BASIS:** This approval is issued in response to the U.S. Department of Defense (DOD) application dated May 11, 2006.
  
5. **PERIOD OF VALIDITY AND CONDITIONS OF APPROVAL:** This approval does not provide relief from any requirements of the Hazardous Materials Regulations or the IMDG Code except as stated herein. This approval is valid until the expiration date of DOT-SP 9649 or unless terminated by the Associate Administrator for Hazardous Materials Safety.

a. Approved Materials: Only the following material(s) may be transported under the terms of this approval.

Hazardous materials descriptions and proper shipping name	Hazard class or Division	Identification Number	PG
Cartridges for weapons, inert projectile	1.2C	UN0328	II
Cartridges for weapons, inert projectile	1.3C	UN0417	II
Cartridges for weapons, inert projectile	1.4C	UN0339	II
Cartridges for weapons, <i>with bursting charge</i>	1.2E	UN0321	II

b. Packaging: Packaging as specified in DOT-SP 9649.

c. Marking Requirements: Each package and overpack if used, prepared under the provisions of this approval must be plainly marked with the approval number.

6. **MODES OF TRANSPORTATION AUTHORIZED**: Motor vehicle, rail freight, and cargo vessel.

7. **SPECIAL PROVISIONS**:

a. A copy of this approval and DOT-SP 9649 must accompany any shipment made under the terms of this approval.

b. Any person who offers for transportation or transports the above-described package(s) may do so under the authority of this approval if all requirements and conditions of this approval and DOT-SP 9649 are met.

c. This approval in no way affects the need to obtain any required authorizations from other agencies of the United States Government or from the competent authorities of the countries of transit, overflight or destination.

d. The competent authority number and the national stock number or part number, of the explosive being offered for transportation must appear on the shipping papers in conjunction with the description of the explosive.

8. **GENERAL PROVISIONS**:

a. Failure by any person to comply with the terms and conditions of this approval and the Hazardous Materials Regulations, 49 CFR Parts 171-180 and the IMDG Code may result in the modification, suspension or termination of that person's authority to use this approval. Failure to comply may also subject that person to penalties prescribed by 49

U.S.C. §§ 5123 and 5124. This approval may be modified, suspended or terminated in its entirety if that action is justified in light of changes in circumstances or additional information not available when this approval was issued. Unless immediate modification, suspension or termination is necessary to avoid a risk of significant harm to persons or property, before action is taken, that person will be notified and provided with an opportunity to show why the proposed action should not be taken.

b. Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this approval must be provided training on the requirements and conditions of this approval in addition to the training required by §§ 172.700 through 172.704.

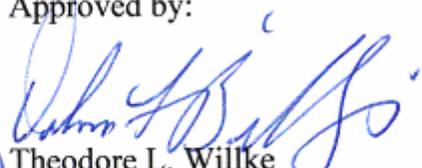
c. Any person operating under the terms of this approval must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.

9. **NOTICE TO IMO:** This is to confirm that a copy of this approval has been filed with the International Maritime Organization

Issued in Washington, D.C.

Dated: **May 1, 2008**

Approved by:

  
Theodore L. Willke  
Associate Administrator  
for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, Washington, D.C. 20590. Attention: PHH-31.

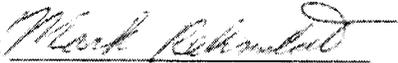
CERTIFICATE OF EQUIVALENCY

CERTIFICATION CONTROL NUMBER: AY 09-076

AUTHORITY: Title 49, Code of Federal Regulations, Subpart 173.7 and DLAR 4145.41/AR700-143/AFJI 24-210/ NAVSUPINST 4030.55/MCO 4030.40 (Shipping Old Stock of Depleted Uranium (DU) Penetrator Munitions under DOT-SP 9649 marked prior to 1 May 2010)

DATE: 2 March 2010

EXPIRATION DATE: 2 March 2015

ISSUED BY: 

Mark Rehmstedt

Chief, Palletization Packing & Field Support Branch

RDECOM-ARDEC

BASIS FOR CERTIFICATION:

Full or Light pallet loads of currently marked old stock with DOT Exemption number "DOT-E 9649" on the individual container and/or pallet loads dated prior to 1 May 2010, may continue to be shipped under the DOT-SP 9649 Special Permit. To allow the use of marking panels on two sides of a pallet load to apply Special Permit certification markings on palletized loads of Department of Defense stockpile of DU marked with DOT-E 9649:

The CFR 49, dated 1 October 2008, Para 172.301(e) allows "a package which has been previously marked as required for the material it contains and on which markings remain legible, need not be remarked."

The CFR 49, dated 1 October 2008, Para 173.7(a) allows "Hazardous Materials offered for transportation by DOD" that where properly packaged, marked and labeled may be shipped by the Department of Defense.

Authorization was provided by the U.S. Department of Transportation under DOT-SP 9649, dated 1 May 2008, Special Provisions, paragraph 8. c and paragraph 8. h state that unitized/palletized group of packages must be conspicuously marked DOT-SP 9649 and that packages previously marked DOT-E 9649 prior to May 1, 2010 may still be shipped under

this special permit. The use of plywood panels on either side of the pallet load meets this requirement for shipments of palletized loads of DU penetrators in lieu of remarking each ammunition container with DOT-SP 9649.

PACKAGE DESCRIPTION: (A) Department of Defense stockpile which meet the packaging and marking requirements of CFR49 and DOT-SP 9649 as of 30 April 2010 with marking DOT-E 9649 may continue to be shipped under this COE and DOT-SP 9649.

To Preclude extensive remarking, hazardous material packed in ammunition shipping containers on palletized loads need not be remarked to change the old DOT-E 9649 marking on the container or pallet load. Such palletized loads will however, be marked on two opposite sides with a marking panel containing the current "DOT-SP 9649" in one inch high letters, "COE AY09-076" and one Radioactive Yellow - II label per 49 CFR, paragraph 172.438 (see DAC drawing ACV00832) .

#### CERTIFICATION OF EQUIVALENCY

(A) UN Markings are:

(1) Proper Shipping Name

(2) UN POP certification. See NSN Packing and Marking drawing.

(B) Department of Defense stockpile which meet the packaging and marking requirements of the current CFR and DOT-SP 9649. Palletized loads of DU penetrators may be marked on two opposite sides with a marking panel containing current special permit certification.

(C) USADAC marking drawing ACV00832 for Radioactive Yellow - II label fill requirements and placement.

(D) Competent Authority Approval (CAA) 2002090017 is required for all OCONUS shipments.

PROPER SHIPPING NAMES: Applicable proper shipping name resulting from a Final Hazard Classification or an unexpired Interim Hazard Classification.

MODE OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, and cargo vessel.

## HAZARDOUS MATERIALS DATA STATEMENT

CERTIFICATE OF EQUIVALENCY NO. AY 09-076

1. Requester or Petitioner: US Army Joint Munitions Command and ARDEC
2. Proposed Dates of Shipment: N/A
3. Title 49 CFR Provisions 172.301(e), 173.7(a) and 173.7(a)(1), dated 1 October 2008:
  - a. 172.301(e) – Previously marked packages: A package which has been previously marked as required for the material it contains and on which markings remain legible, need not be remarked.
  - b. 173.7(a) – Hazardous material offered for transportation by, for or to the Department of Defense (DOD) of the U.S. Government, including commercial shipments pursuant to a DOD contract, must be packaged in accordance with the regulations in this subchapter or in packaging of equal or greater strength and efficiency as certified by DOD in accordance with the procedures prescribed by “Packaging of hazardous Materials, DLAR 4145.41/AR700-143/AFR 71-5/ NAVSUPINST 4030.55/MCO 4030.40.” Hazardous materials offered for transportation by DOD under this provision may be reshipped by any shipper to any consignee provided the original packaging has not been damaged or altered in any manner.
  - c. 173.7(a)(1) – Hazardous material sold by DOD in packages that are not marked in accordance with requirements of this subchapter may be shipped from DOD installations if the DOD certifies in writing that the packages are equal to or greater in strength and efficiency than the package prescribed by this subchapter. The shipper shall obtain such a certification in duplicate for each shipment. He shall give one copy to the originating carrier and retain the other for no less than 1 year.
4. Item Description: All palletized loads of Department of Defense stockpile meeting the hazard material identification requirements of CFR 49 and DOT-E 9649 in effect at time of manufacture.

5. Packaging Data: Packaging and marking meeting the requirements of CFR 49 in effect at time of manufacture. Packaging meeting the requirements of the current CFR 49 with the previous required DOT-E 9649 need not be remarked for shipment.

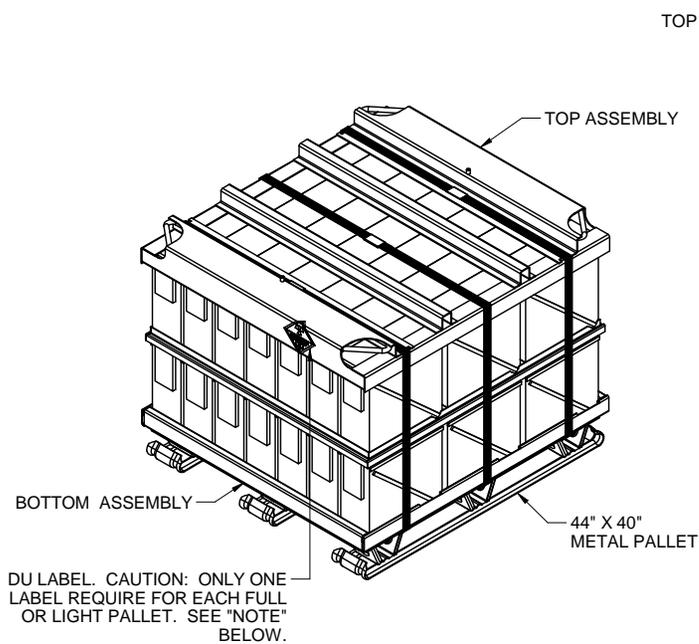
6. Transportation Description: Palletized loads of Department of Defense stockpile, to be shipped using DOT-SP 9649, but marked with DOT-E 9649 will be marked on two opposite sides with a marking placard to showing DOT-SP 9649 and COE AY09-076. One Radioactive Yellow - II label IAW drawing ACV00832 will be applied to the full or light pallet load. Approval must be obtained from the item manager prior to use.

7. Point of Contact: Mark J. Rehmstedt  
RDECOM-ARDEC  
ATTN: RDAR-EIL-TP  
Rock Island, Il 61299-7300  
Telephone – (309) 782-8206 DSN 793-8206



REVISION			APPROVED		
LTR.	DESCRIPTION	ENG.	BY	DATE	
-	PRODUCTION BASELINE (ERR R10K3001)	QT	LF	10-02-01	

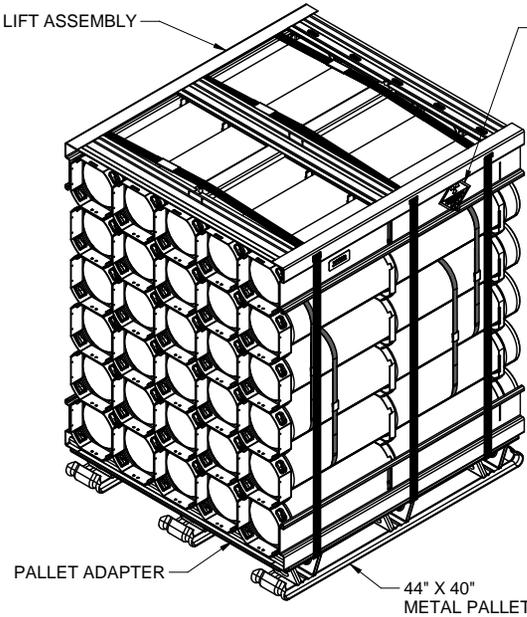
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.



DU LABEL. CAUTION: ONLY ONE LABEL REQUIRE FOR EACH FULL OR LIGHT PALLET. SEE "NOTE" BELOW.

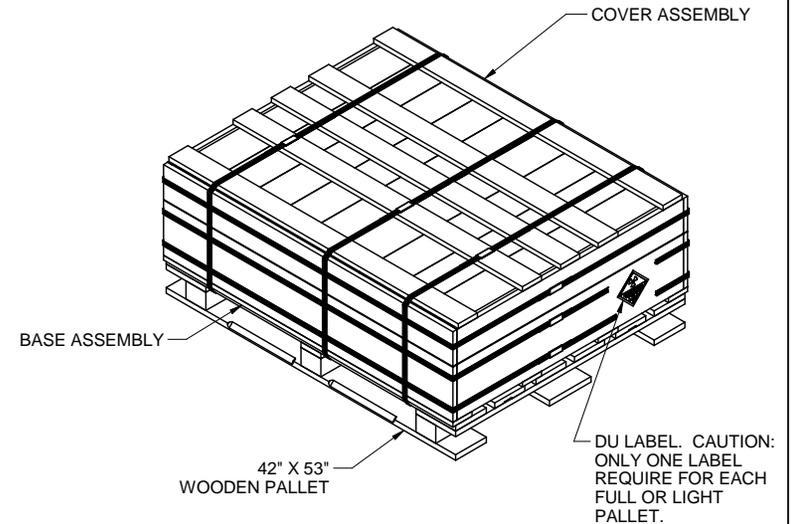
**FIGURE 2**

CARTRIDGE, 25MM, PACKED 30 PER PA125 METAL BOX. SEE AMC 19-48-4232/17. NOTE: THE PLACEMENT OF THE DU LABEL IN FIGURE 2 ABOVE IS AN EXCEPTION TO THE GENERAL REQUIREMENTS OF CFR 49, HOWEVER, THE EXCEPTION IS NECESSARY FOR THIS PARTICULAR PALLET UNIT CONFIGURATION. THIS DEVIATION IS AUTHORIZED WITHIN CFR 49 §§ 172.406(a)(ii).



**FIGURE 3**

CARTRIDGE, 120MM, PACKED 1 PER PA116 OR PA171 CYLINDRICAL METAL CONTAINER. SEE AMC 19-48-4231/48.



**FIGURE 4**

CARTRIDGE, 25MM, PACKED 30 PER M621 CONTAINER. SEE AMC 19-48-4116/17.

DISTRIBUTION STATEMENT A.

APPROVED FOR PUBLIC RELEASE;  
DISTRIBUTION IS UNLIMITED.

DATE: 10-02-01			DESIGN ACTIVITY		
OFFSBRN	CHECKER	PROJL ENGR	U.S. ARMY JOINT MUNITIONS COMMAND DEFENSE AMMUNITION CENTER (DAC) MCALESTER, OKLAHOMA 74501-9053		
TRAN			<b>RADIOACTIVE YELLOW-II LABEL PLACEMENT</b>		
UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES					
TOLERANCES			SIZE	CAGE	DRAWING NO.
XX	XXX	✓ FRACTIONS 1/32	D	28620	ACV00832
±.01	±.005	±0/15	SCALE	NONE	UNIT WT
REMOVE ALL BURRS AND SHARP EDGES 90° R FOR CHAMFERED BAYS			SCALE	NONE	SHEET 2 OF 2
MATERIAL			SCALE	NONE	SHEET 2 OF 2