

February 6, 2015



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 15716  
(SECOND REVISION)

**EXPIRATION DATE: August 31, 2015**

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Department of Energy  
Washington, DC
2. PURPOSE AND LIMITATION:
  - a. This special permit authorizes the transportation in commerce of compressed gas in non-DOT specification cylinders (neutron detectors) for which there are no existing packagings that can be used to transport this material. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
  - b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.
  - c. No party status will be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.302a(a)(1) in that the prescribed packagings are not authorized, except as provided herein.
5. BASIS: This special permit is based on the application of Department of Energy dated September 30, 2014 submitted in accordance with § 107.105 and the public proceeding thereon.

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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>
Methane, compressed	2.1	UN1971	N/A
Boron trifluoride, compressed	2.3	UN1008	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings prescribed are non-refillable, non-DOT specification cylinders described as electron tubes. The electron tubes are designed in accordance with the ASME Boiler and Pressure Vessel Code. The cylinders are constructed of stainless steel or aluminum. The electron tube must be capable of withstanding a pressure at least 4 times the operating pressure. Each electron tube must be manufactured in accordance with the drawings and specifications on file with Approvals and Permits Division.

b. OPERATIONAL CONTROLS -

- (1) Each detector will not exceed 12.8 grams of an authorized compressed gas. Each outer packaging shall not contain more than 51.2 grams of an authorized compressed gas.
- (2) The electron tubes must be packed in sealed intermediate plastic liners with sufficient adsorbent, activated alumina, to adsorb the entire gas contents. The calculated mass balance ratio is 4:1. For example 10 grams of gas is adsorbed with 40 grams of adsorbent.
- (3) The electron tubes must be shipped in strong outside packagings that are capable of withstanding a drop of 6 feet; on a non-yielding surface without breakage or rupture of the outside packaging.

c. MARKING - Each neutron detector must be plainly marked on two sides near the middle with "DOT-SP 15716."

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8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package and it is reoffered for transportation in conformance with this special permit and the HMR.

b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor Vehicle.

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each 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.

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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 Dr. Magdy El-Sibaie  
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.

PO: Majors/SG