

July 5, 2012



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 3216  
(TWENTY-THIRD 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 certain materials listed in paragraph 6 below, in non-DOT specification multi-unit tank car tanks, and provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.
  - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce.
  - c. 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: 49 CFR § 173.314(c) and § 179.301 in that non-DOT specification multi-unit tank car tanks are not authorized, except as specified herein.
5. BASIS: This special permit is based on the Pipeline and Hazardous Materials Safety Administration's (PHMSA) editorial review under § 107.121 initiated on December 4, 2008.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<b>Hazardous Material Description</b>			
<b>Proper Shipping Name</b>	<b>Hazard Class/ Division</b>	<b>Identification Number</b>	<b>Packing Group</b>
1,1-Difluoroethylene or Refrigerant gas, R 1132a	2.1	UN1959	N/A
Chlorotrifluoromethane	2.2	UN1022	N/A
Chlorotrifluoromethane and trifluoromethane azeotropic mixture or Refrigerant gas, R 503	2.2	UN2599	N/A
Compressed gas, flammable, n.o.s. (Mixture of 20% ethane and 80% bromotrifluoromethane)	2.1	UN1954	N/A
Compressed gas, n.o.s. (Mixture of 16% tetrafluoromethane and 84% trifluoromethane)	2.2	UN1956	N/A
Corrosive liquid, toxic, n.o.s. (Anhydrous hydrogen fluoride, Anhydrous hydrogen chloride)	8	UN2922	6.1
Hexafluoroethane compressed or Refrigerant gas, R 116	2.2	UN2193	N/A
Liquefied gas, toxic, corrosive, n.o.s. (Sulfur hexafluoride, hydrogen fluoride)	2.3, 8	UN3308	Hazard Zone D
Refrigerant gas, n.o.s. ("SUVA" 95 a mixture of two fluorinated hydrocarbons)	2.2	UN1078	N/A
Tetrafluoromethane or Refrigerant gas, R 14	2.2	UN1982	N/A
Trifluoromethane or Refrigerant gas, R 23	2.2	UN1984	N/A

Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Vinyl fluoride, inhibited	2.1	UN1860	N/A

7. SAFETY CONTROL MEASURES:a. PACKAGING - Packagings prescribed are:

(1) Non-DOT Specification 110A3000W multi-unit tank car tanks meeting the requirements described in AAR Docket Application 15286 dated November 8, 1961. Each tank must be fabricated from cross-rolled T-1 steel in compliance with details of Columbiana Boiler Company's drawings 71957-E on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA). New construction is not authorized. The gas pressure may not exceed 2,250 psia at 130°F.

(2) Non-DOT Specification 110A2000W multi-unit tank car tanks conforming to Columbiana Boiler Company's drawing 102692 Revision 1 on file with OHMSPA. Each tank must be fabricated from ASTM A 516 Grade 70 normalized steel. Each tank is equipped with six fusible plug/rupture disk safety relief devices conforming to either Superior Valve & Fitting Company's drawing 5396X3 or the Neriki Valve Company's drawing SP-11-001-1, both of which are on file with OHMSPA. The gas pressure may not exceed 1,500 psia at 130°F.

b. TESTING - Each multi-unit tank car tank must be retested and inspected as prescribed in § 180.519 for Non-DOT Specification 110A1000W multi-unit tank car tanks, except test pressure is 3000 psig for the Non-DOT 110A3000W tank and 2000 psig for the DOT 110A2000W tank.

c. OPERATIONAL CONTROLS

(1) Only trifluoromethane, hexafluoroethane, "SUVA" 95, chlorotrifluoromethane, chlorotrifluoromethane, trifluoromethane azeotropic mixture, and vinyl fluoride, inhibited are authorized in DOT 110A2000W multi-unit tank car tanks.

(2) Each multi-unit tank car tank must meet the outage requirements contained in § 173.24b(a)(1), except for 1,1-Difluoroethylene.

(3) The maximum filling density for each gas in DOT Specification 110A2000W and 110A3000W multi-unit tank car tanks is as follows:

<b>HAZARDOUS MATERIAL</b>	<b>110A3000W TANKS</b>	<b>110A2000W TANKS</b>
1,1-Difluoroethylene	73%	NA
Chlorotrifluoromethane	100%	80%
Chlorotrifluoromethane and trifluoromethane azeotropic mixture	96%	62%
Compressed gas, flammable, n.o.s. (Mixture of 20% ethane and 80% bromotrifluoromethane)	88%	NA
Compressed gas, n.o.s. (Mixture of 16% tetrafluoromethane and 84% trifluoromethane)	82%	NA
Corrosive liquid, toxic, N.O.S. (Anhydrous hydrogen fluoride, Anhydrous hydrogen chloride)	117%	NA
Hexafluoroethane	128%	86.75%
Liquefied gas, toxic, corrosive, n.o.s. (Sulfur hexafluoride, hydrogen fluoride)	NA	100%
Refrigerant gas, n.o.s. ("SUVA" 95 a mixture of two fluorinated hydrocarbons)	89%	67%

HAZARDOUS MATERIAL	110A3000W TANKS	110A2000W TANKS
Tetrafluoromethane	62%	NA
Trifluoromethane	87%	65%
Vinyl fluoride, inhibited	62%	51.5%

(4) Used sulfur hexafluoride from electrical installation may only be transported in Specification 110A2000W multi-unit tank car tanks for reprocessing. Outage must be determined as specified in § 173.24b(a)(1).

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 modifications or change are 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.

c. MARKING: Each multi-unit tank car tank must be marked DOT-SP 3216."

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

10. MODAL REQUIREMENTS:

a. A current copy of this special permit must be carried aboard each cargo vessel used to transport packages covered by this special permit.

b. For shipment by water, the multi-unit tank car tanks must be securely fastened in a freight container so as to prevent motion of the tanks in any direction.

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 requirements in § 172.700 through § 172.704.

No person may use or apply this special permit, including display of its number, when the 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 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, 400 Seventh Street, SW, Washington, D.C. 20590.  
Attention: PHH-31.

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)  
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PO: LAVALLE