

August 04, 2021



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 11057
(SEVENTH REVISION)

EXPIRATION DATE: 2025-05-31

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: U.S. Department of Defense
Fort Eustis, VA
2. PURPOSE AND LIMITATIONS:
 - a. This special permit authorizes the use of a non-DOT specification cylinder for the transportation in commerce of certain Division 2.2 gases. 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 development of this special permit only considered the hazards and risks associated with transportation in commerce.
 - c. Party status will not 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 § 173.304a in that the use of a non-DOT specification cylinder is not authorized, except as specified herein.
5. BASIS: This special permit is based on the U.S. Department of Defense's application dated June 28, 2021, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Compressed gases, n.o.s. (mixture of nitrogen and helium)	2.2	UN1956	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING: Prescribed packaging is a welded non-DOT specification, nonrefillable, stainless steel cylinder, conforming with Conax Florida Corporation Drawing 1109-164 on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA), and with DOT Specification 39 (§ 178.65), except as follows:

§ 178.65(a) *Type, size, service pressure and test pressure.*

Cylinder must have a seamless shell with two end fittings butt welded using the plasma arc method.

(1) *Size limitation.* Maximum water capacity must be 30.6 cubic inches for a service pressure of 3,000 psig or less.

(2) *Test pressure.* The minimum test pressure must be 4,000 psig.

§ 178.65(b) *Material.* The cylinder must be constructed of steel.

(1) *Steel* The cylinder must be made of Type 304L stainless steel complying with Federal Specification QQ-S-766D and ASTM-A-269.

(2) Does not apply.

(3) and (4) * * *

§ 178.65(c) *Manufacture.*

(1) * * *

(2) The thickness at the point of closure of cylinders must be equal to at least the wall thickness of the cylindrical shell.

(3) Each cylinder must be subjected to a process treatment after welding by pressurizing to approximately 250% of the service pressure in a fixture which allows expansion to 2.0 inches and maintaining pressure for 60 seconds. Total and permanent expansion must be recorded and included in the inspector's report. The process treatment must be witnessed by the independent inspector.

(4) Welding or brazing for any purpose whatsoever is prohibited except that the attachment of the end fittings to the cylinder shell by butt welding using the plasma arc method per MIL-STD-8611 is authorized.

§ 178.65(d) *Wall thickness.*

* * *

(1) * * *

(2) The cylinder wall thickness will be measured after auto-fretting. The minimum acceptable thickness will be 0.042 inches.

§ 178.65(g) *Flattening tests.*

One finished cylinder out of each lot must be subjected to a flattening test.

(1) The flattening test is to be performed on a cylinder in the final expanded state, after it has been tested at test pressure.

(2) * * *

(3) The flattening must be between 60 degree included angle, wedge shaped knife edges rounded to a 0.5 inch radius.

(4) Flattening is required to six times the wall thickness of the cylinder without cracking.

(5) * * *

§ 178.65(i) *Marking.*

Applies except that each cylinder must be marked "DOT-SP 11057" instead of "DOT 39".

b. TESTING:

Intergranular Corrosion Test. Cylinders representing the starting material and production lots must be subjected to test for resistance to intergranular corrosion" as prescribed in paragraph 4.5.2 of Federal Specification QQ-S-766D. Results of test must show material to be free from precipitated chrome carbides. Test must be performed as follows:

- (1) The first 3 cylinders produced from each heat, coil, sheet, plate or other unit of starting material; and
- (2) One cylinder from each lot of 200 cylinders. The test cylinder must be sectioned through the weld and the weld affected zone and tested for carbide precipitation. If test results of the first ten lots of each unit of starting material proved to be free from carbide precipitation, the sample size may be increased to one cylinder from each 500 manufactured.
- (3) A "lot" is defined as a group of 200 cylinders having identical size, design, construction, material, heat treatment, finish and quality.

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.

c. The cylinders are limited to military life support systems only and are nonrefillable.

- d. The cylinders must be shipped in strong outside packaging in compliance with § 173.301(a)(9).
 - e. New construction of cylinders after May 31, 2000 is not authorized.
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and cargo aircraft only.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each aircraft used to transport packages covered by this special permit. The shipper must furnish a current copy of this special permit to the air carrier before or at the time the shipment is tendered.
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

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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 William Schoonover
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.

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 Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: LaValle/kah