April 5, 2006

U.S. Department
of Transportation

**Pipeline and
Hazardous Materials
Safety Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

DOT-SP 7767
(SEVENTH REVISION)

EXPIRATION DATE: March 31, 2010

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Kidde Aerospace
Wilson, NC
(Former grantee: Walter Kidde Aerospace)

2. PURPOSE AND LIMITATIONS:

a. This special permit authorizes the manufacture, mark, sale and use of a non-DOT specification cylinder conforming with all regulations applicable to a DOT specification 4DS cylinder, except as specified herein, for the transportation in commerce of the materials authorized by this special permit. This special permit provides no relief from any Hazardous Materials Regulation (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. 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)(2), 173.304a(a)(1), and 175.3 in that non-DOT specification cylinders are not authorized, except as specified herein.

5. BASIS: This special permit is based on the application of Kidde Aerospace dated February 6, 2005, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Material Description	**Hazard Class/ Division**	**Identi-fication Number**	**Packing Group**
Compressed gas, n.o.s. (Mixture of bromotrifluoromethane and nitrogen)	2.2	UN1956	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT Specification welded steel cylinder having 200 cubic inch maximum water capacity and at least 750 to not over 900 psi service pressure manufactured in accordance with Hydraulic Research Textron Drawings 826200 Revision B dated Feb. 7, 1977 and 826203 Revision A dated May 2, 1977, and other drawings specifically identified to, and acknowledged in writing by the Office of Hazardous Materials Special Permits and Approvals (OHMSPA) and in compliance with DOT Specification 4DS(§§ 178.35 and 178.47) except as follows:

§ 178.35(e) *Safety Relief Devices.*

Frangible disc type safety relief devices must actuate to relieve at a pressure which does not exceed the minimum required test pressure of the cylinder. Other types of safety relief devices must actuate at a pressure not to exceed 90 percent of the minimum required test pressure of the cylinder.

§ 178.35(f) *Markings.*

Applies except that “DOT-SP 7767" replaces “DOT-4DS”. The marking must be in conformance with the requirements under 49 CFR 178.35(f) except that the elastic expansion (EE_____) in cubic centimeters to the nearest 1 percent must be marked near the test date.

§ 178.47(a) *Type, Size and Service Pressure.*

Circumferentially welded stainless steel cylinders not over 200 cubic inches water capacity.

§ 178.47(b) *Steel.*

Type ARMCO 2-16-9 austenitic stainless steel is authorized with proper welding procedure and complying with the following analysis:

	Percent
Carbon (max)	0.04
Manganese	8.0 - 10.0
Phosphorus (max)	0.060
Sulfur (max)	0.030
Silicon (max)	1.00
Nickel	5.5 - 7.5
Chromium	18.0 - 21.5
Nitrogen	0.15 - 0.40

§ 178.47(f) *Wall thickness.*

The minimum wall thickness must be such that the wall stress at the minimum specified test pressure must not be over 90,000 psi. Minimum wall for any diameter container is 0.056 inch.

§ 178.47(g) *Heat treatment.*

Cylinders may be stress relieved or annealed for forming. Welded container must be stress relieved at a temperature of 900°F. ± 25°F after process treatment and before hydrostatic test.

§ 178.47(h) *Openings in container.*

(1) * * *

(2) * * *

(i) and (ii) * * *

(iii) Straight threads having at least 6 engaged threads to have tight fit and calculated shear strength at least 10 times the test pressure of the container; gaskets required, adequate to prevent leakage.

§ 178.47(j) *Hydrostatic test.*

Applies except that each container must be tested to at least 4 times service pressure.

§ 178.47(n) *Acceptable results for flattening and burst tests.*

Applies except that the burst pressure must be at least 6 times service pressure.

§ 178.47(o) *Qualification tests.*

(1) Prior to initial shipment of any specific cylinder design, cyclic pressurization tests must have been performed on at least three representative samples without failure as follows:

Pressurizations must be performed hydrostatically between approximately zero PSIG and one-half the prescribed minimum test pressure at a rate not in excess of 10 cycles per minute. The cylinders must be subjected to 10,000 such pressurizations.

(2) Cylinders satisfactorily passing tests prescribed in the above pressurization test are to be further tested as follows:

(i) One cylinder must be hydrostatically tested to destruction and the failure pressure recorded.

(ii) Two cylinders must be further cycled as described in (1) until each has been subjected to a total of 20,000 cycles or until failure occurs. Each cylinder withstanding 20,000 cycles must be hydrostatically tested to destruction and the failure pressure recorded.

b. TESTING - Each cylinder must be subjected at least once in 3 years to a test by hydrostatic pressure at 4 times the service pressure in a water jacket to measure the volumetric expansion of the vessel. The vessel must be condemned if the elastic expansion exceeds the original elastic expansion by more than 5 percent. Except as noted above, retest and reinspection must be in accordance with § 178.34(e) as prescribed for DOT Specification 4DS cylinders.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

b. A person who is not a holder of this special permit, but receives a package covered by this special permit, may reoffer it for transportation provided no modifications or changes are made to the package and it is offered for transportation in conformance with this special permit and the HMR.

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

d. Each packaging manufactured under the authority of this special permit must be marked with a registration symbol designated by the Office of Hazardous Materials Special Permits and Approvals for a specific manufacturing facility.

e. A current copy of this special permit must be maintained at each facility where the package is manufactured under this special permit. It must be made available to a DOT representative upon request.

f. Cylinder manufactured under this special permit are not authorized for use fifteen (15) years after the date of manufacture. Cylinders are subject to the use restrictions prescribed in § 173.302a(a)(2), except that they may also be used in military weapons systems.

g. The pressure vessel must be shipped in strong outside packagings in conformance with § 173.301(a)(9).

h. A copy of the Inspectors Report required in § 178.35(g) covering the initial lot of cylinders manufactured under this special permit must be submitted to the Office of Hazardous Materials Special Permits and Approvals (OHMSPA).

i. A report on results of qualification tests conducted in accordance under § 178.47(o) must be submitted to the OHMSPA prior to initial shipment.

j. Packages permanently marked 'DOT-E 7767', prior to October 1, 2007 may continue to be used under this special permit for the remaining service life the package or until the special permit is no longer valid. Packages marked on or after October 1, 2007 must be marked 'DOT-SP 7767'.

k. Shipping papers displaying 'DOT-E 7767' may continue to be used until October 1, 2007, provided the special permit remains valid.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, cargo aircraft only, and passenger-carrying aircraft.

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

- All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.

- 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.

- 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 Robert A. McGuire
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.

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