U.S. Department
of Transportation

**Pipeline and
Hazardous Materials
Safety Administration**

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

SEP 25 2005

DOT-SP 11770
(SEVENTH REVISION)

EXPIRATION DATE: February 28, 2007

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Gas Cylinder Technologies Inc.
Ontario, Canada
(U.S. Agent: Pressure Vessel Technologies, Inc., Warren, MI)

2. PURPOSE AND LIMITATIONS:

a. This special permit authorizes the manufacture, marking, sale and use of non-DOT specification cylinders conforming with all regulations applicable to a DOT Specification 3E cylinder, except as specified herein, for the transportation in commerce of those materials authorized in DOT Specification 3E cylinders. 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.

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

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.302a and 173.304a in that a non-DOT specification cylinder is not authorized, except as specified herein.

5. BASIS: This special permit is based on the application of Gas Cylinder Technologies dated May 25, 2005, submitted in accordance with § 107.105 and the public proceeding therein.

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6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	**Hazard Class/ Division**	**Identi-fication Number**	**Packing Group**
All liquefied and non-liquefied gases authorized for DOT Specification 3E cylinders	2.1, 2.2 & 2.3	Various	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification cylinders manufactured in accordance with the requirements for a DOT 3E Specification in §§ 178.35 and 178.42 except as follows:

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

Seamless steel cylinder with a water capacity not over 65 cubic inches. Service pressure must be 1,800 psig.

§ 178.42(f) *Hydrostatic test.* Cylinders must be tested as follows:

(1), (2), and (3) * * *

Add: (4) One cylinder out of each lot of 500 or less must be subject to flattening test without cracking to six times wall thickness between knife edges, wedge shaped 60 degree angle, rounded to a 1½ inch radius.

§ 178.42(i) *Marking.*

Each cylinder must be marked as required by § 178.35(f) except the cylinder must be marked "DOT-SP 11770" in lieu of "DOT 3E" followed by the service pressure.

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§ 178.42(j) Design Testing

Prior to the initial shipment of any specific cylinder design, cyclic pressurization tests must have been performed on at least three representative samples at ambient temperature. Sample cylinders must be fabricated on the same equipment and subjected to the same processes as is used to produce cylinders intended for charging and shipment. Cylinders must be tested without failure as follows:

Pressurizations must be performed hydrostatically between approximately zero psig and the test pressure at a rate not in excess of 10 cycles per minute. Adequate recording instrumentation must be provided if equipment is to be left unattended for periods of time. All cylinders used in cycle testing must be destroyed.

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

c. 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 Permit and Approvals for a specific manufacturing facility.

d. 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.

e. Charging of cylinders with liquefied gases must conform to the requirements in § 173.304a.

f. Charging of cylinders with nonliquefied compressed gases must conform to the requirements in §§ 173.40, 173.192 and 173.304a as applicable.

g. Cylinders must be shipped in strong outside packagings in conformance with § 173.301(a)(9). Each cylinder must be secured against rotational movement within the outside packaging.

h. Packagings permanently marked 'DOT-E 11770', prior to October 1, 2006 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 on or after October 1, 2006 must be marked 'DOT-SP 11770'.

i. Shipping papers displaying 'DOT-E 11770' may continue to be used until October 1, 2006, provided the special permit remains valid.

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

10. MODAL REQUIREMENTS: No additional requirements other than those required in the HMR.

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, 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 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 Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

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Date

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: CWF/AM