U.S. Department
of Transportation
**Research and
Special Programs
Administration**

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

MAR 27 2003

DOT-E 12990

EXPIRATION DATE: February 28, 2005

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Technifab Products, Inc.,
Brazil, IN

2. PURPOSE AND LIMITATIONS:

a. This exemption authorizes the manufacture, marking, sale and use of a non-DOT specification cylinder for the transportation in commerce of liquid natural gas (LNG). This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.

b. The safety analyses performed in development of this exemption only considered the hazard and risks associated with transportation in commerce. The safety analysis did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.

c. Party status will not be granted to this exemption.

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

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.316, in that a non-DOT specification cylinder is not authorized except as prescribed herein.

5. BASIS: This exemption is based on the application of Technifab Products, Inc. dated March 20, 2002, and additional information dated May 9 and November 18, 2002 submitted in accordance with § 107.105 and the public proceeding thereon.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Material Description			
Proper Shipping Name	**Hazard Class/ Division**	**Identi-fication Number**	**Packing Group**
Natural gas, refrigerated liquid (*cryogenic liquid*), (with high methane content)	2.1	UN1972	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification vacuum jacketed cylinder, used as a vehicle fuel containment vessel, conforming to all regulations applicable to a DOT-4L specification cylinder, except as specified herein. The container must be in conformance with Technifab Products, Inc. drawing number 3593, and supporting documentation on file with the Office of Exemptions and Approvals and with DOT Specification 4L (see §§ 178.35 and 178.57) except as follows:

§ 178.57(h) *Openings in cylinder.*

(1) Applies except that outside diameter of openings may not exceed 5.563 inches.

(2) * * *

§ 178.57(l) *Tests of Welds.*

(1) thru (3) * * *

(4) (i) thru (v) * * *

(vi) Applies except that Impact test specimens must be cooled to -320°F.

§§ 178.35(f) and 178.57(p) *Marking.* Applies except that container must be marked "DOT-E 12990(LNG)" in lieu of "DOT-4L". Additionally, the tare weight of the cylinder must be marked on the cylinder.

b. Requalification, Repair, and Rebuilding

(1) **§ 180.205 General requirements for requalification of cylinders.** This section applies to cylinders authorized under this exemption.

(2) **§ 180.209 Requirements for requalification for specification cylinders.** This section applies to cylinders covered by this exemption except as follows:

(a)(1) each cylinder must be requalified at least once every 3 years in accordance with the requirements for DOT-4L and CGA pamphlet C-6.4 and be performed by Technifab Products, Inc.

(c) cylinders must be requalified before being refilled and offered for transportation, if at any time they show evidence of a leak or corrosion, denting, bulging or rough usage or they have lost 5% of its tare weight. (See CGA Pamphlet C-6.4 for inspection criteria). After testing, the actual tare weight must be recorded as the new tare weight.

(3) **§ 180.211 Repair, rebuilding and reheat treatment of DOT-4 series specification cylinders.** This section applies to cylinders authorized under this exemption.

(4) **§ 180.213 Requalification markings.** This section applies to cylinders authorized under this exemption.

(5) **§ 180.215 Reporting and record retention requirements.** This section applies to cylinders authorized under this exemption.

c. OPERATIONAL CONTROLS - § 177.840(a) *Floors or platforms essentially flat.* Cylinders shall not be loaded onto any part of the floor or platform of any motor vehicle which is not essentially flat; cylinders may be loaded onto any motor vehicle not having a floor or platform only if such motor vehicle be equipped with suitable racks having adequate means for securing such cylinders in place therein. Nothing contained in this section shall be so construed as to prohibit the loading of such cylinders on any motor vehicle having a floor or platform and racks as herein before described.

(i) Cylinders. To prevent their overturning, cylinders must be securely lashed in an upright position; loaded into racks securely attached to the motor vehicle; packed in boxes or crates of such dimensions as to prevent their overturning.

(ii) ADD Cylinders for liquid natural gas (LNG), cryogenic liquid. A cylinder containing LNG, cryogenic liquid may only be transported on a motor vehicle as follows:

(A) The vehicle must have an open body equipped with a suitable rack or support having a means to hold the cylinder upright when subjected to an acceleration of "2 g" in any horizontal direction;

(B) The combined total of the LNG venting rates, as marked, on the cylinders transported on one motor vehicle may not exceed 60 SCF per hour;

(C) The vehicle may not enter a tunnel; and

(D) Highway transportation is limited to private and contract carriage and to direct movement from point of origin to destination.

8. SPECIAL PROVISIONS:

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

b. A person who is not a holder of this exemption, but receives a package covered by this exemption, 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 exemption and the HMR.

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

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

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

f. The cylinders described in this exemption are:

(1) authorized only for normal transportation as an article of commerce i.e., the movement of hazardous materials packages from consignor to consignee;

(2) intended for use as an aftermarket vehicle fuel containment vessel. When installed on a motor vehicle as a fuel containment vessel, the cylinders are not subject to the HMR.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.

10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each motor vehicle used to transport packages covered by this exemption (see restrictions in paragraph 7.c.).

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, Parts 171-180.
- Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

Issued at Washington, D.C.

MAR 27 2003
(DATE)

Robert A. McGuire
Acting Associate Administrator for
Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590. Attention: DHM-31.

Copies of this exemption may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/exemptions Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

PO: SSTANISZEWSKI/CHHOCHMAN