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

MAY 17 1999

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

DOT-E 10345
(FIRST REVISION)

EXPIRATION DATE: April 30, 2001

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Luxfer Gas Cylinders (formerly Luxfer USA Limited) Riverside, CA

2. PURPOSE AND LIMITATIONS:

   a. This exemption authorizes the manufacture, mark, sale and use of non-DOT specification fiberglass hoop wrapped cylinders for the transportation in commerce of the materials authorized by this exemption. The cylinders are authorized for underwater use only. This exemption provides no relief from any Hazardous Materials Regulation (HMR) other than as specifically stated herein.

   b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce. The safety analyses 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.

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

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.302(a)(1) and 175.3 in that non-DOT specification cylinders are not authorized.

5. BASIS: This exemption is based on the application of Luxfer Gas Cylinders dated March 1, 1999, 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
Air, compressed	2.2	UN1002	n/a
Helium, compressed	2.2	UN1046	n/a
Rare gases and oxygen mixtures, compressed	2.2	UN1980	n/a

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a hoop wrapped (HW) non-DOT specification fiber reinforced plastic (FRP) cylinder made in accordance with Luxfer U.S.A. Limited's technical data related to their design models 121W-30 and L45W-45, submitted with their applications, on file with the Office of Hazardous Materials Exemption and Approvals (OHMEA), and conforming with DOT FRP-2 Standard (§ 178.BB) Revision 1 dated January 4, 1987, except as follows:

§ 178.BB-5 Material.

(a) Aluminum liner must be 6061 alloy and T6 temper.

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§ 178.BB-15 Marking.

(a) * * *

(b) Required markings are as follows:

(1) "DOT-E 10345" followed by the service pressure in psig.

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b. TESTING -

(i). Production qualification test results for each design authorized under this exemption must be submitted to OHMEA before first shipment.

(ii). Each cylinder must be reinspected and hydrostatically retested every three years in accordance with § 173.34(e), as prescribed for DOT 3HT specification cylinders, except that the rejection elastic expansion does not apply and the permanent volumetric expansion must not exceed 5 percent of the total volumetric expansion at test pressure. Retest dates must be stamped into the metal of the cylinder shoulder near the original test date.

(iii). Results from in service periodic visual examination and hydrostatic tests must be submitted to OHMEA during their use.

c. OPERATIONAL CONTROLS - Production is limited to two hundred (200) 121W-30 and one hundred (100) L45W-45 cylinders. Complete identification and serial number of theses cylinders must be submitted to the OHMEA.

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. Cylinders are authorized for underwater use only. Cylinders must not be painted.

g. A cylinder is not authorized for use 15 years after the date of manufacture.

h. A cylinder that has been subjected to fire must not be returned to service.

i. Carriers transporting packages under the terms of this exemption must hold a "Conditional" or "Satisfactory" safety rating, as prescribed by Part 385 of 49 CFR.

j. Cylinders must be packaged in accordance with § 173.301(k).

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 exemption must be carried aboard each cargo vessel, aircraft or motor vehicle used to transport packages covered by this exemption. The shipper shall furnish a copy of this exemption 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 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.

Ann Mazzulla 5/17/99

Alan I. Roberts (DATE)
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.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, S.W., Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

Dist: FHWA, USCG, FRA, FAA.
PO: KFW