



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

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

AUG 5 2004

Mr. Patrick Hall  
Quality Manager  
Luxfer Gas Cylinders  
Composites Cylinder Division  
3016 Kansas Avenue, Building No. 3  
Riverside, California 92507

Dear Mr. Hall:

In response to your letter dated July 29, 2004, enclosed is a copy of the Seventh Revision of DOT-E 9894 which grants your request to modify paragraph 8(j).

If you have any questions, please do not hesitate to contact me at (202) 366-4535.

Sincerely,

R. Ryan Posten  
Exemptions Program Officer  
Office of Hazardous Materials  
Exemptions and Approvals

Enclosure



U.S. Department  
of Transportation

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

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DOT-E 9894  
(SEVENTH REVISION)

EXPIRATION DATE: July 31, 2005

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Luxfer Gas Cylinders  
Riverside, CA
  
2. PURPOSE AND LIMITATION:
  - a. This exemption authorizes the manufacture, mark, sale and use of non-DOT specification fiber reinforced plastic (FRP) hoop-wrapped (HW) cylinders conforming with all regulations applicable to the DOT FRP-2 Standard, except as specified herein, for the transportation in commerce of the materials authorized by this exemption. 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 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(a)(1), 173.304a(a), (d) and 175.3 in that the use of a non-DOT specification package is not authorized except as specified herein.
  
5. BASIS: This exemption is based on the application of Luxfer Gas Cylinders dated July 29, 2003, submitted in accordance with § 107.109, and an additional application dated February 13, 2004 submitted in accordance with § 107.105 and the public proceeding thereon. And supplemental information dated July 29, 2004.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

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| Proper Shipping Name/<br>Hazardous Materials Description | Hazard<br>Class/<br>Division | Identi-<br>fication<br>Number | Packing<br>Group |
|--|------------------------------|-------------------------------|------------------|
| Air, compressed  | 2.2                          | UN1002                        | N/A              |
| Argon, compressed  | 2.2                          | UN1006                        | N/A              |
| Carbon dioxide   | 2.2                          | UN1013                        | N/A              |
| Compressed gas, n.o.s.                                   | 2.2                          | UN1956                        | N/A              |
| Helium, compressed                                       | 2.2                          | UN1046                        | N/A              |
| Nitrogen, compressed                                     | 2.2                          | UN1066                        | N/A              |
| Oxygen, compressed                                       | 2.2                          | UN1072                        | N/A              |

7. SAFETY CONTROL MEASURES:

PACKAGING - Packaging prescribed is a non-DOT specification, fiber reinforced plastic (FRP), hoop-wrapped (HW) cylinder made in full conformance with data provided by Luxfer Gas Cylinders (formerly Luxfer U.S.A. Limited) with their application on file with the office of Hazardous Materials Exemptions and Approvals (OHMEA) and in conformance with the requirements of DOT FRP-2 Standard, Revision 1, dated January 4, 1987 (Basic Requirements for Fiber Reinforced Plastic (FRP) Type 3HW Composite Cylinders) except as follows:

178.BB-5 Authorized materials and identification of material.

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

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 who receives a package covered by this exemption 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 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 available to a DOT representative upon request.
- f. Cylinders manufactured under this exemption are not authorized for use fifteen (15) years after the date of manufacture.
- g. Use of these cylinders for underwater breathing is not authorized.
- h. Cylinders used in oxygen service must be in compliance with § 173.302(b)(1) through (4).
- i. Cylinders must be packaged in accordance with § 173.301(k).
- j. Each cylinder must be reinspected and hydrostatically retested every three years in accordance with § 180.205 as prescribed for DOT 3HT cylinders, except that the rejection elastic expansion criteria does not apply, permanent volumetric expansion must not exceed 5 percent of total volumetric expansion at test pressure and retest dates must be steel stamped on the outer exposed metallic surface of the cylinder neck, or marked on a label securely affixed to the cylinder and over-coated with epoxy. Reheat treatment or repair of rejected cylinders is not authorized.

- k. Transportation by oxygen is only authorized by aircraft when in accordance with § 172.102 (c)(2) Special Provision A52 and § 175.85(h) and (i).
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, passenger-carrying aircraft and cargo aircraft only.
10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each cargo vessel or aircraft used to transport packages covered by this exemption. The shipper must furnish a current 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:
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
  - o Persons operating under the terms of this exemption 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 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.

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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 inform the AAHMS, in writing, of any incidents involving the package and shipments made under the terms of this exemption.

Issued in Washington, D.C.:



Robert A. McGuire  
Associate Administrator for  
Hazardous Materials Safety

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(DATE)

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: sln