U.S. Department
of Transportation

**Research and
Special Programs
Administration**

MAR 27 2000

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

DOT-E 10256
(SIXTH REVISION)

EXPIRATION DATE: February 28, 2002

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Valley Transit
Walla Walla, Washington
(Former Grantee: Q3 Comdyne Cylinders, Inc.)

2. PURPOSE AND LIMITATION:

a. This exemption authorizes the use of a FRP-1, non-DOT specification cylinder for the transportation in commerce of certain hazardous materials described in paragraph 6 subject to the limitations and special requirements specified herein. 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. 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); § 173.304(a) and (d) only in that the prescribed cylinder is not listed as an authorized packaging; § 175.3.

5. BASIS: This exemption is based on the application of Valley Transit dated March 23, 2000, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous materials description -- proper shipping name	Hazard Class/ Division	Identi-fication Number	Packing Group
Air, compressed	2.2	UN1002	N/A
Carbon dioxide	2.2	UN1013	N/A
Compressed gas, n.o.s. (Oxygen enriched air, oxygen not over 39%)	2.2	UN1956	N/A
Liquefied gas, n.o.s. (Oxygen enriched air, oxygen not over 39%)	2.2	UN3163	N/A
Helium, compressed	2.2	UN1046	N/A
Nitrogen, compressed	2.2	UN1066	N/A
Oxygen, compressed	2.2	UN1072	N/A
Hydrogen, compressed	2.1	UN1049	N/A
Methane, compressed or Natural gas, compressed *(with high methane content)*	2.1	UN1971	N/A
Compressed, flammable, n.o.s. (compressed natural gas)	2.1	UN1954	N/A

7. SAFETY CONTROL MEASURES: Packaging prescribed is a non-DOT specification, fiber reinforced plastic (FRP), full wrapped (FC) composite cylinder made in accordance with Comdyne I, Inc.'s drawing 15000100.AF-1-2(B) and other associated drawings on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA), which conform with DOT FRP-1 Standard, (§ 178.AA), Revision 2 dated February 15, 1987, (See Appendix 1 to this exemption) except as follows:

§ 178.AA-2 Type, size and service pressure.

Type 3FC cylinders consisting of resin impregnated continuous filament windings in both longitudinal and circumferential directions over a seamless aluminum liner with service pressure of at least 900 psi but not over 3600 psi and having a water capacity not over 530 pounds.

§ 178.AA-5 Material.

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

§ 178.AA-9 Thermal treatment.

(a) The aluminum alloy liners must be solution heat treated and aged to the T-6 temper. Ends of ring used for the physical and flattening tests must be covered and arranged for heat treatment in accordance with COMDYNE procedure described in their letter of August 2, 1989.

* * *

§ 178.AA-12 Destructive tests

(a) Physical tests.

(4) The test specimens may be obtained from test rings. The length of the ring may not be less than its outside diameter. Each ring must be of the same specification material, diameter, and thickness as the finished cylinders represented. Each ring must be subjected to the same heat treatment as the finished cylinders represented. Ends of ring must be covered and arranged for heat treatment in accordance with COMDYNE procedure described in their letter of August 2, 1989.

* * *

§ 178.AA-15 Marking.

(a) * * *

(1) "DOT-E 10256" followed by the service pressure.

§ 178.AA-18 Design qualification tests.

(g) * * *

(1) and (2) * * *

(3) * * * Except that for cylinders with lengths over 4 feet regardless of water capacity at least one representative cylinder must be subjected to the horizontal test; a vertical test is not required.

(4) * * * Except that for cylinders with lengths over 4 feet regardless of water capacity at least one representative cylinder must be subjected to the horizontal test; a vertical test is not required.

8. SPECIAL PROVISIONS:

a. 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 modifications or change are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.

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

c. Cylinders may not be used for underwater breathing purposes.

d. Cylinders used in oxygen service must conform with § 173.302(a)(5)(i) through (a)(5)(iv).

e. Cylinder service life may not exceed 15 years.

f. Each cylinder must be reinspected and hydrostatically retested every three years in accordance with § 173.34(e), as prescribed for DOT specification 3HT cylinders, except that the rejection elastic expansion does not apply and the permanent volumetric expansion may not exceed 5 percent of the total volumetric expansion at test pressure. Retest dates must be stamped on the exposed metallic surface of the cylinder neck or marked on a label securely affixed to the cylinder and overcoated with epoxy near the original test date. Reheat treatment or repair of rejected cylinders is not authorized.

g. A cylinder that has been subjected to fire may not be returned to service.

h. Transportation of flammable gases is not authorized aboard cargo vessel or aircraft.

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i. Cylinders must be packaged in accordance with § 173.301(k), except that cylinders that are shipped in horizontal position on a motor vehicle during transportation must instead comply with § 173.301(1) or the requirements of paragraph 7, § 178.AA-2(b).

j. Acceptable design qualification and first production lot test results must be submitted to the OHMEA prior to initial shipment.

k. The cylinders described in this exemption are authorized only for normal transportation as an article of commerce i.e., the movement of hazardous materials packages from consignor to consignee. No cylinder may be transported in a partially filled condition, i.e., other than full or empty per § 173.29, unless it is equipped with a pressure relief device designed, manufactured and tested for partially filled cylinders.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, cargo aircraft only (See paragraph 8.h. for restrictions).

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. (Sections171.15 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.

For Robert A. McGuire
Acting Associate Administrator
for Hazardous Materials Safety

(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.

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, SW, Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

PO: sln00