



SPECIAL PERMIT NO. 2045 REVISION NO. 2

This Special Permit is issued pursuant to the terms of Section 71.6(a) of the Canadian Transport Commission's "Regulations for the Transportation of Dangerous Commodities by Rail" to authorize the shipment by rail in Canada certain non flammable gases in non CTC Specification cylinders under conditions prescribed herein and does not relieve any shipper or carrier from compliance with any requirement of the Commission's Regulations except as specifically stated.

1. BASIS

Letter dated July 10, 1986 from Bemco Inc., 25 Sass Road, R.R. No. 4, Chatham, Ontario, N7M 5J4.

2. COMMODITY CLASSIFICATION

Non flammable gas 2.2.

3. COMMODITY NAME

- a) Air, compressed.
- b) Oxygen, compressed.

4. IDENTIFICATION NUMBER

- a) 1002
- b) 1072.

5. REGULATION AFFECTED

73.302, Part 78, specification 3E.

6. AUTHORIZED SHIPPER

Bemco Inc., its agents or distributors or customers.

7. PACKAGING DESCRIPTION

a) Non CTC specification welded spherical cylinder made in compliance with drawing No. BEMCO 001 dated November 28, 1982 and additional design and performance data on file with the Director of Operation. Valve arrangement must be as described in BEMCO drawings 003, 004, and 005 on file with the Director of Operation.

b) In addition, the cylinders shall be in compliance with CTC specification 3E except as follows:

- 2(a) Welded cylinder not over 90 cu.in. water capacity. Longitudinal seams and welded tubing prohibited.



5) Steel: GLX-50-W, or ASTM-A-572 of uniform quality, adequately killed deep drawing quality steel.

8) Second sentence is deleted.

11) HYDROSTATIC TEST

(a) Cylinders must be tested as follows:

(1) One cylinder out of each lot of 250 or less to be subjected to hydrostatic pressure of 6,000 pounds per square inch or higher.

(2) The cylinder referred to in subparagraph (1) of this paragraph shall burst at a pressure higher than 6,000 pounds per square inch without fragmenting or otherwise showing lack of ductility, and one additional cylinder in the same lot of 250 must be subjected to 3000 psi test and subsequently a ring cut from that cylinder with one inch (1") of material on each side of the weld shall be flattened between flat plates with the circumferential joint at a right angle to the plates. Flattening without cracking to six times the thickness of the seam joint is required. Note 1 is deleted.

(3) Other cylinders must be examined under pressure of at least 3000 psig and show no defect. The pressure must be maintained for at least 30 seconds and sufficiently longer to insure complete examination.

12) All cylinders must be tested for leakage by internal air or gas at 1800 psig following the hydrostatic test. Leakers must be rejected.

14) MARKING

(a)(1) "CTC SP 2045-1800" or "CTC/DOT-E 9351-1800".

15) Applicable inspection reports required are:

- (1) Inspectors certification
- (2) Record of chemical analysis
- (3) Flattening test and burst test.

8. SPECIAL REQUIREMENTS

(a) Cylinders must be shipped in strong outside packagings complying with subsection 73.301(a).

(b) Each cylinder shall be secured against rotational movement within the overpack.

9. REPORTING REQUIREMENTS

The Director of Operation shall be advised of any incident involving loss of contents and shall be provided with a summary of experience before the expiration date of the Special Permit.

10. EXPIRY DATE

July 29, 1987



Director of Operation  
Railway Transport Committee

Issued at Hull, Quebec  
this 29th day of July 1986.

Address all inquiries to:

Director of Operation, RTC  
Canadian Transport Commission  
25 Eddy Street, 14th Floor  
Hull, Quebec  
K1A 0N9