U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

E8602

Mr. Tim Neeser
MVE, Incorporated
Business Unit Manager
Bulk Distribution Products
P.O. Box 234
New Prague, MN 56071-0234

MAR - 8 1999

Dear Mr. Neeser:

In accordance with 49 CFR § 107.121(b), I hereby terminate exemption DOT-E 8602 issued to MVE, Incorporated, formerly Minnesota Valley Engineering. On September 2, 1998, Ms. Suzanne Hedgepeth, Director of the Office of Hazardous Materials Exemptions and Approvals (OHMEA), issued a letter informing MVE that the Research and Special Programs Administration (RSPA) proposed to terminate the exemption and provided MVE an opportunity to show cause within 30 days why the exemption should not be terminated.

Based on numerous discussions between you and Mr. Ryan Posten, Exemptions Program Officer, OHMEA, regarding this issue, he sent you a letter dated January 26, 1999, requesting a list of portable tanks that were manufactured in conformance with DOT-E 8602.

In your letter of response dated February 9, 1999, you stated that, "we have never manufactured vessels per the drawing revisions noted on this exemption." Your statement confirms our observations that all portable tanks presently marked DOT-E 8602 do not meet the requirements of that exemption. This constitutes a sufficient basis for termination. Therefore, exemption DOT-E 8602 is terminated effective upon your receipt of this letter.

This action does not resolve proceedings which may be initiated by the Office of Hazardous Materials Enforcement or RSPA's Office of the Chief Counsel for violations of the Hazardous Materials Regulations, 49 CFR Parts 171-180.

Sincerely,

Alan I. Roberts
Associate Administrator for
Hazardous Materials Safety

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

IMPORTANT- PLEASE READ

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DOT-E 8602 (EXTENSION)
SECOND REVISION August 15, 1984
CORRECTED COPY

In accordance with 49 CFR 107.105 of the Department of Transportation (DOT) Hazardous Materials Regulations DOT-E 8602 is hereby extended for the party(ies) listed below by changing the expiration date in paragraph 10 to June 30, 1998. This change is effective from the issue date of this extension. All other terms of the exemption remain unchanged.

This extension applies only to party(ies) listed below based on the application(s) received in accordance with 49 CFR 107.105. This extension constitutes a necessary part of this exemption and must be attached to it.

for Marilyn J. Morris
Alan I. Roberts
Associate Administrator
for Hazardous Materials Safety

July 18, 1996
(DATE)

Dist: FHWA

| EXEMPTION HOLDER | APPLICATION DATE |
|---|---|
| Minnesota Valley Engineering, Inc.<br>New Prague, MN | May 8, 1996 |

U.S. Department
of Transportation

Research and
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Administration

DOT-E 8602
(SECOND REVISION)
(CORRECTED COPY)

1. Minnesota Valley Engineering, New Prague, Minnesota, is hereby granted an exemption from those provisions of this Department's Hazardous Materials Regulations specified in paragraph 5 below to manufacture, mark, and sell the packaging described in paragraph 7 below for use in the transportation of the non-flammable gases described in paragraph 3 below in commerce subject to the requirements specified herein. This exemption authorizes shipment of refrigerated liquid argon, nitrogen or oxygen in non DOT specification portable tanks, and provides no relief from any regulation other than as specifically stated.

2. BASIS. This exemption is based on Minnesota Valley Engineering's application dated February 4, 1983 submitted in accordance with 49 CFR 107.105 and the public proceeding thereon.

3. HAZARDOUS MATERIALS (Descriptor and class). Liquid nitrogen, liquid oxygen, liquid argon in portable tanks equipped with road relief valves set to discharge at not over 25 psig; classed as nonflammable gas.

4. PROPER SHIPPING NAME (49 CFR 172.101). Nitrogen, refrigerated liquid, oxygen, refrigerated liquid or argon, refrigerated liquid, as appropriate.

5. REGULATION AFFECTED. 49 CFR 173.320.

6. MODE OF TRANSPORTATION AUTHORIZED. Cargo vessel.

7. SAFETY CONTROL MEASURES. Packagings prescribed are non-DOT specification vacuum insulated portable tanks in an ISO frame designed and constructed in accordance with Section VIII of the ASME Code and in compliance with the following.

| | | |
|---|---|---|
| Model No | HL 1920 ISO | HL 1680 M ISO |
| Inner Tank material | SA 240 Type 304 stainless steel | |
| Inner tank design MAWP | 45 psig | 46 psig |
| Inner tank design temperature | -320°F | -320°F |
| Inner tank water capacity nominal | 1920 gallons, | 1680 gallons |
| Outer jacket material | Carbon steel A 607 Gr. 50 Type 1 | |
| Safety relief valve (SRV) Setting | 45 psig | 46 psig |
| SRV relief capacity-SCFM air | 363 | 137 minimum |
| Frangible disc (FD) Burst | 59 psig | 60 psig |
| FD relief capacity-SCFM air | 363 | 137 minimum |
| Tare Weight | 7000 pounds | 6600 pounds |
| Gross Weight (Max.): | | |
| Filled with argon | 28,226 pounds | 23,818 pounds |
| Filled with nitrogen | 19,465 pounds | 16,477 pounds |
| Filled with oxygen | 24,400 pounds | 20,614 pounds |
| General Arrangement Drawing | D-14559 Rev. F | D 19341 Rev. O<br>D 19377, Rev. B or C<br>D 19378, Rev. B |
| Inner-Outer Tank Assembly | D-14516 Rev. M. | D 16189 Rev. O |

a. For a portable tank used to transport oxygen, the insulation may not sustain combustion in a 99.5 percent oxygen atmosphere at atmospheric pressure when contacted with a continuously heated glowing platinum wire. A portable tank which is so insulated must be marked, "INSULATION FOR OXYGEN SERVICE" when it is used to transport oxygen.

b. A portable tank constructed for oxygen service must be thoroughly cleaned to remove all foreign material in accordance with CGA Pamphlet G 4.1. All loose particles from fabrication such as weld beads, dirt, grinding wheel debris, and other loose contaminants must be removed prior to final closure of the manway or the tank. Chemical or solvent cleaning with a material compatible with the intended lading must be performed to remove any contaminants likely to react with the lading.

c. Aluminum may not be used for any valve or fitting with moving or abrading parts or for any exposed materials of construction of the tank assembly.

d. Each tank must be filled to allow at least 2 percent outage below the inlet of the controlling pressure relief valve under conditions of incipient opening of this valve with the tank in a level attitude. The tank must be weighed prior to dispatch and must comply with the outage required above.

e. Each tank must be protected by at least one pressure relief valve and at least one frangible disc arranged to discharge upward and unobstructed to the outside of the housing so as not to impinge against the tank itself, the cargo vessel, or any other cargo. Road relief valves set at 25 psig are authorized. These valves must be arranged to discharge into a commom header vent line.

f. Each portable tank must be tested at 1-1/2 times the sum of the design pressure plus 14.7 plus the static head prior to initial shipment.

8. SPECIAL PROVISIONS.

a. A copy of this exemption must be carried aboard each vessel used to transport packages covered by this exemption.

b. Each tank must be plainly marked on both sides near the middle in letters at least two inches high on a contrasting background, "DOT-E 8602."

c. The legend "One Way Travel Time _____ Hours" must be marked on the shipping paper immediately after the container description. This blank shall be filled in according to the results obtained from an actual test described below on at least one tank out of each design. The test may be performed in conjunction with an actual shipment.

d. To determine the "One-way travel time" (OWTT) a measured holding time test must be performed with the tank charged with the intended commodity at the maximum loading temperature to be used in service and to a filling density corresponding to a 2 percent outage at the pressure level of the lowest setting on the pressure relieving devices. The equilibrium pressures and ambient temperatures must be recorded at 6-hour intervals until the pressure level of the contents reaches a pressure not to exceed that at which the lowest pressure relieving device is set to open. This total time lapse in hours shall be noted "holding time at ... F. average temperature." This holding time must be adjusted to the equivalent holding time at 85 F. to establish the rated holding time (RHT). The marked rated holding time (MRHT) may be equal to or less than the established RHT. The OWTT is derived from the formula:

$$OWTT = MRHT - 24$$

e. The tanks must be stowed "on deck" only.

f. During transportation, the portable tanks shall be firmly secured to the deck.

g. Each tank must be reinspected and retested once every 5 years in accordance with 49 CFR 173.32(e) as prescribed for DOT specification 51 portable tanks at one and one-half times the sum of the design pressure plus 14.7 plus static head.

9. REPORTING REQUIREMENTS. Any incident involving loss of contents of the package must reported to the OHMR as soon as practicable. The release of a material covered by this exemption is not a reportable incident if the release is through a pressure controlling device set at a pressure no higher than 25 psig (see Paragraph 7e).

10. EXPIRATION DATE. April 30, 1985.

Issued at Washington, D.C.:

AUG 15 1984

Joseph T. Horning

for Alan I. Roberts
Associate Director for
Hazardous Materials Regulation
Materials Transportation Bureau

(DATE)

Address all inqiuires to: Associate Director for Hazardous Materials Regulation, Materials Transportation Bureau, Research and Special Programs Administration, U.S. Department of Transportation, Washington, D. C. 20590. Attention: Exemptions Branch.

Dist: USCG