FEB 13 1997

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

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

DOT-E 11059
(SECOND REVISION)

EXPIRATION DATE: January 31, 1999

(FOR RENEWAL, SEE 49 CFR SECTION 107.109.)

1. GRANTEE: U.S. Bureau of Mines, United States Department of the Interior, Amarillo, Texas.

2. PURPOSE AND LIMITATION: This exemption authorizes the transportation in commerce of certain DOT 107A tank car tanks that are retested by means of an acoustic emission method in lieu of the hydrostatic retest required in 49 CFR 173.31(d)(2). The authorized tanks are used exclusively for the transportation of compressed helium, a Division 2.2 material. This exemption provides no relief from any regulation other than as specifically stated herein.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171.180.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR 173.31(d) Retest Table 2 insofar as the retest interval for DOT 107A tank car tanks, 173.31(d)(2).

5. BASIS: This exemption is based on the U.S. Bureau of Mines's application dated December 12, 1996, submitted in accordance with 49 CFR 107.109.

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous materials description/proper shipping name	Hazard Class/ Division	Identification number	Packing Group
Helium, compressed	2.2	UN 1046	N/A

7. PACKAGING AND SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a rail car containing up to thirty (30) DOT-107A tank car tanks manifolded and mounted securely on the rail car chassis, or a module containing up to six DOT 107A tank car tanks that are manifolded and assembled in a steel frame that is securely mounted on a flat bed truck.

Each tank is designed for service pressure seven-tenths of its marked test pressure.

(1) The maximum fill pressure for any tank may not exceed 7/10 of the marked test pressure for that tank. The maximum fill pressure for any tank covered by this exemption may not exceed 4000 psi.

(2) The maximum fill pressure for any tank car tank assembly is limited by the lowest marked test pressure in that assembly.

b. TESTING -

(1) Each tank car tank must be retested once every 10 years in accordance with the procedure and acceptance criteria described in the paper "Acoustic Emission (AE) and Ultrasonic testing (UT) of high pressure tank cars (DOT-107A) used for storage at the Amarillo plant", dated July 1994, on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA). The acoustic emission testing and evaluation may be performed without removing the tank car tank from the rail car or the module assembly.

(2) If the AE testing followed by the required ultrasonic evaluation indicates the presence of a crack or a crack-like defect in the tank wall that exceeds a depth of 25 percent of the wall thickness, that tank must be removed from the assembly for further evaluation to determine its suitability for continued safe use.

(3) Each person performing AE or UT testing and evaluation, must have adequate experience in the applicable test method and must be certified at least to Level II by the American Society for non-destructive testing.

8. SPECIAL PROVISIONS:

a. Persons who receive the packages covered by this exemption may reoffer them for transportation provided no modifications or changes are made to the packages, all terms of this exemption are complied with and a current copy of this exemption is maintained at each facility from which such reoffering occurs.

b. Shippers using the packaging covered by this exemption must comply with all provisions of this exemption, and all other applicable requirements contained in 49 CFR Parts 171-180.

c. MARKING -

(1) Each rail car or module containing the cylinders covered by this exemption must be marked with letters at least 2 inches high on a contrasting background as follows:

DOT E-11059

Maximum Fill pressure XXXX

where XXXX is the maximum fill pressure specified in paragraphs 7a(1) and (2). The marking shall be at the upper front corner on each side of each frame containing the tank car tanks.

(2) The current retest date must be marked on the rear bulkhead inside the rail car cabinet at approximately eye level above the withdrawal valve for the tank car tank assembly. In the event retest dates of tanks differ among the assembled tank car tanks, the retest due date for the authorized alternate re-test shall be based on the oldest retest date.

FEB 13 1997

9. MODES OF TRANSPORTATION AUTHORIZED: Rail freight and motor vehicle.

10. MODAL REQUIREMENTS: A copy of this exemption must be carried on each motor vehicle used to transport packages covered by this exemption.

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 Federal hazardous materials transportation law, 49 U.S.C. Section 5101 et seq:

- All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- Registration required by 49 CFR 107.601 et seq., when applicable.

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. (49 CFR 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 at Washington, D.C.:

Ann Mazzullo 2/13/97

for 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.

Dist: FRA, FHWA