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

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

NOV 8 1995

DOT-E 10645
SECOND REVISION

EXPIRATION DATE: October 20, 1997

(FOR RENEWAL, SEE 49 CFR 107.105)

1. GRANTEE: Essex Cryogenics of Missouri, Inc.
St. Louis, Missouri

2. PURPOSE AND LIMITATIONS:

This exemption authorizes the manufacture, marking and sale of an insulated non-DOT specification cylinder conforming with 49 CFR 178.57 (except Section 178.57-8(c)), to be used for the transportation in commerce of liquid oxygen. 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 Sections 173.316 and 178.57-8(c) insofar as non-DOT specification cylinders are not authorized packagings.

5. BASIS: This exemption is based on the applications of Essex Cryogenics of Missouri, Inc., dated June 28, 1994, submitted in accordance with 49 CFR 107.103 and the public proceeding thereon and March 2, 1995 submitted in accordance with 49 CFR 107.105.

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous materials description -- proper shipping name	Hazard Class/ Division	Identification Number
Oxygen, refrigerated liquid	2.2	UN1073

No Renewal
Not Active

7. PACKAGING(S) and SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification insulated cylinder conforming with Essex Cryogenics drawings number IOC-0031-1, revision date 9/24/92, and IOC-0031-2 dated 2/3/93, and with DOT Specification 4L (49 CFR 178.57) except as follows:

178.57-2 Type, size, service pressure and design service temperature.

(a) Type and size. Must be fusion welded, with not over 1.25 liter capacity (2.75 pounds water capacity), nominal.

(b) Service pressure. May not be more than 50 psig.

(c) Design service temperature. Must be -320°F or colder.

178.57-8 Manufacture.
* * * * *
(c) * * * sixth sentence is deleted and the fifth sentence is replaced with the following:

"The construction must be such that the total heat transfer, from the atmosphere at ambient temperature to the cylinder lading, may not exceed 0.014 Btu per hour per °F temperature differential per pound of water capacity of the cylinder."

b. MARKING - Each liquid oxygen system must be plainly marked "DOT-E 10645" in letters at least 0.25 inch high on a contrasting background.

c. OPERATIONAL CONTROLS -

(i) Drivers must have been instructed as to necessary safeguards and proper procedures in the event of unusual delay, fire, or accident.

(ii) Transportation of the units authorized by this exemption, when charged, is prohibited by common carrier.

8. SPECIAL PROVISIONS:

a. Offerors for transportation of the hazardous materials specified in this exemption may use the packaging described in this exemption for the transportation of such hazardous materials so long as no modifications or changes are made to

the packages, all terms of this exemption are complied with, and a copy of the current exemption is maintained at each facility from which such offering occurs.

b. Each packaging manufactured under the authority of this exemption must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Exemptions and Approvals Program for a specific manufacturing facility.

c. A copy of this exemption, in its current status, must be maintained at each manufacturing facility at which this packaging is manufactured and must be made available to a DOT representative upon request.

d. 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.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.

10. MODAL REQUIREMENTS: A copy of this exemption must be carried aboard 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 the 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, 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.

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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. (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 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. NOV 8 1995

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.

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