U.S. Department
of Transportation

**Research and
Special Programs
Administration**

JAN 22 1988

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

DOT-E 9906

1. Boston University School of Medicine (Pulmonary Center), Boston, Massachusetts, is hereby granted an emergency exemption from certain provisions of this Department's Hazardous Materials Regulations to offer packages prescribed herein of liquified oxygen for transportation in commerce subject to the limitations and special requirements specified herein. This exemption authorizes use of non-specification packaging and patient use of oxygen systems on board a passenger ship, and provides no relief from any regulation other than as specifically stated.

2. BASIS. This exemption is based on Boston University School of Medicine's application dated January 11 and 18, 1988, for an emergency exemption, submitted in accordance with 49 CFR 107.113 based on a economical loss factor.

3. HAZARDOUS MATERIALS (Descriptor and class. Liquified oxygen non-flammable gas.

4. PROPER SHIPPING NAME (49 CFR 172.101). Oxygen, refrigerated liquid (cryogenic liquid).

5. REGULATION AFFECTED. 49 CFR 176.63(b), 173.316.

6. MODES OF TRANSPORTATION AUTHORIZED. Passenger vessel.

7. SAFETY CONTROL MEASURES. Packaging prescribed is PURITAN-BENNETT Corporation Models Companion 31A/31 (stationary unit) or equivalent (maximum 75 lbs capacity) and Companion 1000 (portable unit) or equivalent (maximum 3.00 lbs capacity) as approved by the U.S. Food and Drug Administration (FDA), Bureau of Medical Devices.

8. SPECIAL PROVISIONS.

a. A copy of this exemption shall be provided to the vessel's Master, Chief Mate or Chief Engineer prior to loading any units onto the vessel.

b. Ships crew shall be instructed as to the necessary safeguards and proper procedures in the event of fire or accident involving liquified oxygen.

c. All persons using this equipment shall be provided a copy of this exemption and shall be familiar with its conditions.

d. Not more than eleven Companion 31A/31 units (825 lbs capacity) shall be placed on board a vessel under this exemption.

e. All units used under this exemption shall have no outstanding recall notices.

f. All units used under this exemption with electrical components shall be Underwriters Laboratories (UL) or Factory Mutual (FM) listed.

g. All units used under this exemption shall be used in accordance with manufacturers instructions. As a minimum the following conditions will apply:

(1) Prevent the accumulation of oxygen in cabins by turning off the oxygen supply valve when the equipment is not being used.

(2) Keep units in well ventilated areas.

(3) Do not carry the units under a coat or any form of clothing.

(4) Matches, cigarette lighters, burning tobacco and candles must be eliminated from the cabin where the oxygen unit is being used and stored.

(5) Radios, televisions sets, fans, electrical razors and all other electrical appliances must be kept at least six feet from the oxygen units.

(6) All electrical equipment must be properly grounded.

(7) Do not place units near heat sources.

(8) Keep all flammable materials away from the oxygen units.

(9) Keep all units out of the reach of children.

(10) No unauthorized individuals should be allowed to tamper with the units.

(11) Keep oils, greases, vaseline, lotions, facial creams and hair dressings away from the units. Aerosol sprays are also prohibited from use in the vicinity of the units.

h. For stationary units:

(1) Stowage shall be in accordance with 49 CFR 176.63(b) and 176.80 Table II.

(2) If the stowage area is not on weather decks, the space shall have an intrinsically safe or explosion proof electrical installation.

(3) If the stowage area is not on the weather decks, the space shall be ventilated to prevent oxygen enrichment of the space.

(4) Stowage locations must be approved by the vessel's Master, Chief Mate or Chief Engineer.

(5) Access to the units shall be approved by the vessel's Master, Chief Mate or Chief Engineer.

(6) Only trained attending medical staff shall fill the portable units.

(7) Units shall be configured and stowed to withstand the conditions of transportation by sea.

(8) All locations where units are stored shall be designated as no smoking areas and suitably posted as such.

i. For portable units:

(1) Portable units may be used in any public area, and used or stored in any cabin in accordance with the conditions of this exemption.

(2) Cabins where units are used shall be designated as no smoking areas and suitably posted as such.

(3) Users of the units shall be trained in its proper use.

(4) Units shall be stowed and handled to withstand the conditions of transportation by sea.

j. Any unit that is damaged or develops a leak shall be immediately placed "on-deck" and the Master notified. The unit shall remain "on-deck" until repaired or is emptied of all oxygen.

k. The conditions of this exemption do not relieve the holder from any requirements issued by:

(1) The master of the vessel.

(2) The Competent Authority of the Government having registered the vessel.

(3) Any Nation who's waters or ports the vessel sails into or calls upon.

l. The local Coast Guard Captain of the Port must be provided a copy of, and approve the compliance with, this exemption prior to the vessel's departure from the port where the units are first loaded.

9. REPORTING REQUIREMENTS. Any incident involving loss of contents of the package must be reported to the OHMT as soon as practicable.

10. EXPIRATION DATE: February 29, 1988.

Issued at Washington, D.C.:

Joseph T. Horning

Alan I. Roberts
Director
Office of Hazardous Materials
Transportation

JAN 22 1988
(DATE)

Address all inquiries to: Director, Office of Hazardous Materials Transportation, Research and Special Programs Administration, U.S. Department of Transportation Washington, D.C. 20590. Attention: Exemptions Branch.

Dist: USCG