U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

DEC 14 1999

DOT-E 12153
(SECOND REVISION)

EXPIRATION DATE: January 31, 2000

1. GRANTEE: Sandia National Laboratories
Albuquerque, New Mexico

2. PURPOSE AND LIMITATION: This emergency exemption authorizes the transportation in commerce of certain non-DOT specification containers and cylinders containing Division 2.2 materials. These containers and cylinders are installed in the Multispectral Thermal Imager Satellite Payload (MTISP). 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 § 173.34(a)(1) in that cylinders are allowed to release nitrogen into the satellite telescope during transportation; § 173.34(d) in that the containers and cylinders are not fitted with pressure relief devices; § 173.302(a)(1), and § 173.304(a)(2) in that non-DOT specification packagings are authorized.

5. BASIS: This emergency exemption is based on the application of Sandia National Laboratories dated October 5, 1998, submitted in accordance with § 107.117 and a determination that it is necessary for national security, and subsequent letters dated February 9, 1999 and December 8, 1999.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper shipping name -- Hazardous materials description	Hazard Class/ Division	Identification Number	Packing Group
Ammonia, anhydrous, liquefied	2.2	UN1005	N/A
Helium, compressed	2.2	UN1046	N/A
Nitrogen, compressed	2.2	UN1066	N/A

7. PACKAGING AND SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packagings are installed in the MTISP and are not equipped with pressure relief devices:

(1) Non-DOT specification containers conforming to all requirements of DOT-E 12093 except that the containers are installed in the MTISP instead of overpacked in a wooden box. The containers contain ammonia anhydrous, and nitrogen, compressed.

(2) Two cylinders conforming to all requirements of the DOT 3AA Specification except that they are not equipped with pressure relief devices. The cylinders contain compressed nitrogen and have a marked service pressure of 2,500 psig. This exemption authorizes the cylinders to be transported with open valves that are equipped with regulators to allow the controlled flow of gas. The nitrogen will flow from the cylinder to a connector on the MTISP by way of a polyethylene hose. The nitrogen flow rate is approximately 280 cc/min.

(3) Non-DOT specification containers (Cryo Cooler) containing a limited quantity of compressed helium at 250 psig maximum with a volume of 0.13 cubic inches. The Cyro Cooler must be designed with a burst factor of safety of at least 2 in accordance with MIL-STD-1522A.

b. OPERATIONAL CONTROLS -

(1) The MTISP must be shipped in a strong outside fiberglass shipping container constructed in accordance with drawings on file with the Office of Hazardous Materials Exemptions and Approvals.

(2) The nitrogen cylinders are shipped in a horizontal position, and must be securely braced and strapped to a pallet. The cylinders must have valve protection.

(3) Emergency response information provided with the shipment and available via an emergency response telephone number must indicate that the containers/cylinders are not fitted with pressure relief devices and must provide appropriate guidance in the event of a fire.

(4) The MTISP must be transported in an exclusive use vehicle which is temperature controlled.

8. SPECIAL PROVISIONS:

a. This exemption authorizes shipment between Sandia National Laboratories and Vandenberg AFB, Ca., provided no modifications or changes are made to the prescribed containers or cylinders and the package is reoffered for transportation in conformance with this exemption and the HMR.

b. A current copy of this exemption and DOT-E 12093 must be maintained at each facility where the package is offered or reoffered for transportation.

c. MARKING - The outer shipping container must be plainly and durably marked on two opposite sides "DOT-E 12153". The two nitrogen cylinders must be marked "DOT-E 12153".

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.

10. MODAL REQUIREMENTS: A copy of this exemption and DOT-E 12093 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. 5101 et seq:

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

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

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. (Sections 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 incident involving the package and shipments made under the terms of this exemption.

Issued at Washington, D.C.:

DEC 14 1999

(DATE)

Alan I. Roberts
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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