U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

JUL 2 2004

DOT-E 13566

EXPIRATION DATE: October 31, 2004

1. GRANTEE: Orbital Sciences Corporation
Dulles, VA

2. PURPOSE AND LIMITATION:

a. This emergency exemption authorizes the transportation in commerce of compressed nitrogen contained in non-DOT specification pressure vessels mounted internal to the structure of the DART spacecraft. This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.

b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR Part 172 Subparts D and E; and Part 173 Subpart G in that non-DOT specification packaging is not authorized except as specified herein.

5. BASIS: This emergency exemption is based on the application of Orbital Sciences Corporation, dated May 4, 2004, submitted in accordance with § 107.117 and a determination that it is necessary to prevent significant economic loss.

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6. HAZARDOUS MATERIALS (49 CFR § 172.101):

| Hazardous Material Description | | | |
|---|---|---|---|
| **Proper Shipping Name** | **Hazard Class/ Division** | **Identi- fication Number** | **Packing Group** |
| Nitrogen, compressed | 2.2 | 1066 | N/A |

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings prescribed are as follows:

(1) Regulated Pegasus Reaction Control System (Pegasus RCS), consisting of two 505 cu. in. graphite-epoxy wrapped aluminum storage tanks, constructed as described in Orbital Sciences Corporation (OSC) Drawing A50190 Rev. A or OSC Specification A60037 Rev. D. on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA). The completed subsystem is described per OSC Drawing A20414 Rev. 2 on file with OHMEA. The designed service pressure is 5,800 psig.

(2) DART Reaction Control System (DART RCS), consisting of a single 5,920 cu. in. storage tank, constructed as described in OSC Drawing K50002 Rev. A2 or OSC Specification K60011 Rev. B on file with OHMEA. The completed subsystem is described per OSC Drawings K20001 Rev. 4 and K20004 Rev. A3 on file with OHMEA. The designed service pressure is 4,500 psig.

b. OPERATIONAL CONTROLS -

(1) During shipment the Pegasus RCS and the DART RCS will be pressurized to a maximum of 800 psig and 500 psig respectively.

(2) During shipment the DART spacecraft must be packaged inside a fiberglass reinforced polyester shipping container (Part No. SAE 0001 9636) manufactured by ECS Composites.

(3) Transportation is only authorized for shipment of the integrated spacecraft unit, as described in the exemption application on file with OHMEA, between the assembly facility at Dulles, VA and the launch site at Vandenberg Air Force Base, CA. Transportation is limited to private carriage or contract carriage under the exclusive use of the shipper.

8. SPECIAL PROVISIONS:

a. A current copy of this exemption must be maintained at each facility where the package is offered for transportation.

b. The marking and labeling requirements of 49 CFR Part 172 Subparts D and E are waived.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.

10. MODAL REQUIREMENTS: A current 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. 5101 et seq:

- All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- Persons operating under the terms of this exemption must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- 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 this 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 in Washington, D.C.:

JUL 2 2004
Date

Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, U.S. Department of Transportation, 400 Seventh Street, SW, Washington, D.C. 20590.
Attention: DHM-31.

Copies of this exemption may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/exemptions Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

PO: KWong