SEP 28 2004

U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

DOT-E 13568
(FIRST REVISION)

EXPIRATION DATE: August 31, 2006

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Spectrum Astro, Inc.
Gilbert, AZ

2. PURPOSE AND LIMITATION:

a. This exemption authorizes the transportation in commerce of the streak space vehicle xenon flow system assembly containing non-DOT specification pressure vessels pressurized with xenon. 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. The safety analyses did not consider the hazards and risks associated with use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.

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

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.301(a)(1)and 173.301(f) in that a non-DOT specification pressure vessel is not authorized, except as specified herein.

5. BASIS: This exemption is based on the application of Spectrum Astro, Inc., dated May 19, 2004, submitted in accordance with § 107.105 and the public proceeding thereon.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi-fication Number	Packing Group
Xenon	2.2	UN2036	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification pressure vessel manufactured by Arde, Inc. which is part of the streak space vehicle xenon flow system assembly described in Spectrum Astro's application on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA). The non-DOT specification pressure vessel is a xenon storage tank (Spectrum Astro Part No. D4898). The pressure vessel is an aluminum alloy cylinder with graphite-epoxy composite over wrap, fitted with end bosses. The pressure vessel is approximately 505 cubic inches in volume and designed and tested to MIL-STD-1522A Approach A for a working pressure of 1,250 psig and a burst pressure of 12,500 psig. Two pressure vessels are manifolded together with welded seamless stainless steel tubings and fittings.

b. OPERATIONAL CONTROLS: The pressure vessels and assembly must be shipped in the space vehicle shipping container described in the application on file with the OHMEA.

8. SPECIAL PROVISIONS:

a. Transportation of the space vehicle shipping container authorized under this exemption is limited to the following movements:

(1) From Electric Propulsion Laboratory, Monument, Colorado to Spectrum Astro's facility in Gilbert, Arizona by dedicated motor vehicle; and

(2) From Spectrum Astro's facility in Gilbert, Arizona to the Western Test Range of Vandenberg Air Force Base facility in Lompoc, California by dedicated motor vehicle.

b. Transportation of cylinders is only authorized as part of a military weapons or defense initiative system.

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

d. The space vehicle shipping container must be marked "DOT-E 13568" on two opposite sides in letters and numbers at least 2 inches in height on a contrasting background.

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 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 in Washington, D.C.:

SEP 28 2004
(DATE)

Robert A. McGuire
for 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.

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: AM/KW