



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

MAY 13 1997

DOT-E 11849

EXPIRATION DATE: April 30, 1999

(FOR RENEWAL, SEE 49 CFR SECTION 107.109)

1. GRANTEE:
Boeing North American, Inc.
Downey, California
2. PURPOSE AND LIMITATION: This exemption authorizes the transportation in commerce of the P91-1 ARGOS satellite having certain Division 1.4S, Division 2.1, 2.2, Class 7 and Class 8 hazardous articles and substances installed in non-specification packagings, subject to the provisions herein. 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 173.62(c), Packing Method E-141; 173.159; 173.302; 173.304-307; 173.314-315; 173.421; and 177.848(d) Segregation Table.
5. BASIS: This exemption is based on the application of Boeing North American, Inc. dated February 24, 1997, submitted in accordance with 49 CFR 107.105 and the public proceeding thereon.

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6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous materials description -- proper shipping name	Hazard Class/ Division	Identi- fication Number	Packing Group
Igniters (EX-8601869)	1.4S	UN0454	II
Hydrogen, compressed	2.1	UN1049	--
Ammonia, anhydrous, liquified (Inhalation Hazard)	2.2	UN1005	--
Compressed gases, n.o.s. (contains 90 percent argon and 10 percent methane)	2.2	UN1956	--
Carbon dioxide	2.2	UN1013	--
Xenon	2.2	UN2036	--
Nitrogen, compressed	2.2	UN1066	--
Radioactive materials, excepted, package-instruments or articles	7	UN2910	--
Batteries, wet, non-spillable	8	UN2800	III

7. PACKAGING AND SAFETY CONTROL MEASURES:

PACKAGING - The P91-1 ARGOS satellite itself shall be packaged securely in an air-tight non-specification aluminum container designed to mount on a flat-bed truck trailer chassis. The individual hazardous materials within the satellite shall be packaged as follows:

- a. The electro-explosive devices installed in the satellite shall all have shorting plugs (Faraday caps) in the firing circuitry and "unable/arm/fire" restricted command sequences in place to prevent premature firing during transport.
- b. Not more than 10 pounds of anhydrous ammonia shall be contained in a non-specification spherical stainless steel pressure vessel of 0.04 inches thickness with a capacity of 1925 cubic inches and a rated burst pressure of 2000 psi. The maximum operating pressure of the ammonia pressure vessel shall not exceed 300 psi.