

April 30, 2007



U.S. Department
of Transportation

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

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 14443

EXPIRATION DATE: April 30, 2009

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Ball Aerospace & Technologies Corporation
Boulder, CO
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce by motor vehicle of helium in a non-DOT specification packaging identified as the 10K Cryo-cooler. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.
 - b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.
 - c. No party status will be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.301(a)(1) and (a)(3) and 173.301(f) in that the 10K Cryo-cooler is not fitted with pressure relief devices; and §§ 173.302a(a)(1), 173.304a(a)(2), 175.3 and 177.801(a) in that a non-DOT specification packaging is not authorized, except as specified herein.
5. BASIS: This special permit is based on the application of Ball Aerospace & Technologies Corporation dated November 13, 2006 submitted in accordance with § 107.105 and the public proceeding thereon.

April 30, 20076. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Helium, compressed	2.2	UN1046	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification packaging identified as the 10K Cryo-cooler consisting of a Sterling compressor and displacer and a Joule-Thompson compressor. The 10K Cryo-cooler which is mounted in a frame which is secured in a wood crate (MIL-STD PPP-B-601 or equivalent) or a metal spacecraft shipping container as described in the application for special permit on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA). The 10K Cryo-cooler is designed in accordance with Ball Aerospace & Technologies Corporation's engineering reports and analyses on file with the OHMSPA and is not fitted with valves or pressure relief devices.

b. TESTING - Welds must be radiographically inspected to MIL-STD-453 or ASTM E 1742 specification. Each 10K Cryo-cooler must be pneumatically tested to a pressure of at least 1.5 times the vapor pressure of the lading at 80°C (176°F) without failure and must have a minimum burst pressure of at least 532 psig.

c. OPERATIONAL CONTROLS -

(1) The 10K Cryo-cooler may not contain more than 95 liters of helium at 150 psia at room temperature.

(2) Emergency response information provided with the shipment and available via an emergency response telephone number must indicate that the container is not fitted with pressure relief devices and provide appropriate guidance in case the packaging is exposed to fire.

April 30, 20078. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package or its contents and it is reoffered for transportation in conformance with this special permit and the HMR.

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

c. The overpack containing the 10K Cryo-cooler must be plainly and durably marked on two sides in letters and numbers at least 2 inches high on a contrasting background, "DOT-SP 14443".

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each motor vehicle used to transport packages covered by this special permit.11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required by § 107.601 et seq., when applicable.

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

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No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)- 'The Hazardous Materials Safety and Security Reauthorization Act of 2005' (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term 'special permit' to 'special permit' and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Bob Richard
Deputy Associate Administrator
for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, Department of Transportation, Washington, D.C. 20590. Attention: PHH-31.

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

PO: SSTANISZEWSKI