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**November 9, 2009**



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety Administration**

East Building, PHH - 30  
1200 New Jersey Avenue, Southeast  
Washington, D.C. 20590

DOT-SP 8023  
(THIRTEENTH REVISION)

EXPIRATION DATE: September 30, 2013

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Structural Composites Industries LLC  
Pomona, CA
2. PURPOSE AND LIMITATIONS:
  - a. This special permit authorizes the manufacture, mark, sale and use of non-DOT specification FRP-2 cylinders for transportation of Division 2.1 and 2.2 materials listed in paragraph 6 below. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
  - b. The safety analyses performed in development of this special permit 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 §§ 173.302a(a) and (d) and 175.3 in that non-DOT specification cylinders are not authorized, except as prescribed herein.
5. BASIS: This special permit is based on the application of Structural Composites Industries LLC dated September 9, 2009, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<b>Hazardous Materials Description</b>			
<b>Proper Shipping Name</b>	<b>Hazard Class/ Division</b>	<b>Identification Number</b>	<b>Packing Group</b>
Air, compressed	2.2	UN1002	N/A
Argon, compressed	2.2	UN1006	N/A
Carbon dioxide	2.2	UN1013	N/A
Helium, compressed	2.2	UN1046	N/A
Hydrogen, compressed	2.1	UN1049	N/A
Nitrogen, compressed	2.2	UN1066	N/A
Nitrous Oxide	2.2	UN1070	N/A
Oxygen, compressed	2.2	UN1072	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packaging is a non-DOT specification fiber reinforced plastic (FRP) hoop-wrapped (HW) cylinder made in accordance with Acurex Corporation's technical data submitted with their application, on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA), and in full compliance with DOT FRP-2 Standard First Revision dated January 4, 1987, except as follows:

§ 178.BB-5 Material.

(a) Aluminum liner used in the construction of any new cylinders after May 29, 1985 must be the 6351-T6 alloy and temper.

\* \* \* \* \*

§ 178.BB-15 Marking.

(a) Each cylinder must be permanently marked (other than stamping in the composite) in the composite wrap on the side near the end of the cylinder containing the valve outlet, except that cylinders manufactured prior to October 1, 1982 may be marked as follows:

"DOT-SP 8023" followed by the service pressure and the inspectors mark must be located in the composite wrap. Other required markings must be in the composite wrap or on the metal shoulder, top head or neck of the cylinder.

\* \* \* \* \*

b. TESTING - Each cylinder must be reinspected and hydrostatically retested at least once every three years in accordance with § 180.205 as prescribed for DOT 3HT cylinders, except that permanent volumetric expansion for cylinders made after July 1, 1979 may not exceed 5 percent of total volumetric expansion at test pressure, and the rejection elastic expansion criteria does not apply. Retest dates must be stamped into the metal of the cylinder shoulder near the original test date.

c. OPERATIONAL CONTROLS -

1. Cylinders may not be used for underwater breathing purposes.

2. A cylinder is not authorized for use 15 years after its date of manufacture.

3. Cylinder must be packaged in accordance with § 173.301(a)(9).

4. A cylinder which has been subjected to action of fire must not be returned to service.

5. Acurex, the former grantee of this special permit, is responsible for compliance with the terms of DOT-SP 8023 (Third Revision, Second Corrected Copy) and with the provisions as related to those cylinders manufactured prior to May 29, 1985 and marked with this special permit number.

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6. Acurex, the former grantee of this special permit, is not authorized to manufacture cylinders under this special permit after May 29, 1985.

7. Transportation of flammable gases is not authorized for aircraft or cargo vessel.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

b. A person who is not a holder of this special permit, but 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 offered for transportation in conformance with this special permit and the HMR.

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

d. Each packaging manufactured under the authority of this special permit must be marked with a registration symbol designated by the Office of Hazardous Materials Special Permits and Approvals for a specific manufacturing facility.

e. A current copy of this special permit must be maintained at each facility where the package is manufactured under this special permit. It must be made available to a DOT representative upon request.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, cargo aircraft only, and passenger-carrying aircraft (see paragraph 7.c.7. for restrictions).

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel or aircraft used to transport packages covered by this special permit. The shipper shall furnish a current copy of this special permit to the air carrier before or at the time the shipment is tendered.

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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, 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.

No person may use or apply this special permit, including display of its number, when the 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 "exemption" 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

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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 Dr. Magdy El-Sibaie  
Acting Associate Administrator for Hazardous Materials Safety  
Address all inquiries to: Associate Administrator for Hazardous  
Materials Safety, Pipeline and Hazardous Material Safety  
Administration, U.S. Department of Transportation, East Building  
PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C.  
20590.

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](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm)  
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