

May 21, 2014



U.S. Department
of Transportation

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

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 14781
(FOURTH REVISION)

EXPIRATION DATE: April 30, 2018

1. GRANTEE: CCH Equipment Company
Dallas, TX
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of compressed hydrogen in manifold and framed non-DOT specification seamless steel cylinders originally certified as Specification DOT-107A seamless steel tank car tanks. 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. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
 - c. Party status will be not granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.302a and 173.314 in that non-DOT specification cylinders are not authorized, except as provided herein.
5. BASIS: This special permit is based on the application of CCH Equipment Company dated May 1, 2014, submitted in accordance with § 107.109

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper shipping name	Hazard Class/ Division	Identification Number	Packing Group
Hydrogen, compressed	2.1	UN1049	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packagings are seamless steel cylinders (flanged-end tube), of 50 cubic feet nominal water capacity each, originally manufactured and maintained in conformance to the requirements for DOT Specification 107A seamless steel tank car tanks (§§ 179.500 and 180.500). The cylinders have been removed from the trucks and are framed, manifold and mounted on a trailer in accordance with Henderson International Drawing 103-229, dated July 20, 2000, on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA).

(1) Each cylinder must be tested for hardness in accordance with Henderson International procedures on file with OHMSPA.

(2) Each cylinder must be equipped with one shut-off valve that is rated for maximum stamped test pressure of the cylinder.

(3) A minimum of 1% of flange stud bolts must be tested for the required strength and elongation. The test must be in accordance with Henderson International procedures on file with OHMSPA.

(4) Each flange gasket must be leak tight and would not be prone to cold flow for the maximum operating pressure at 149°F (65°C) temperature when the cylinder is filled with hydrogen. The gaskets must meet all requirements described in Henderson International application on file with OHMSPA.

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(5) Each cylinder must be equipped with two safety relief devices (PRD), one at each end. The discharge of each PRD must be connected to a single header (pipe) having non-obstructed passage, pointed upward and extended to the top of the trailer.

b. TESTING - Each cylinder must be retested and reinspected as prescribed in § 180.209 for DOT-3AAX except the test pressure is equal to the marked test pressure stamped on each cylinder.

c. OPERATIONAL CONTROLS -

(1) The maximum fill pressure for any cylinder may not exceed 7/10 of the marked test pressure for that cylinder. The maximum fill pressure for any cylinder covered by this special permit may not exceed 4000 psi.

(2) The maximum fill pressure for any cylinder in the frame assembly is limited by the cylinder with the lowest marked test pressure in that assembly.

8. 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 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. Each cylinder must be marked "DOT-SP 14781" as specified in §§ 172.302(b) and (c). The existing DOT-107A marking must be removed or permanently covered.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and cargo vessel.

10. MODAL REQUIREMENTS:

a. A current copy of this special permit must be carried aboard each cargo vessel or motor vehicle used to transport packages covered by this special permit.

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b. The cylinders must be loaded on the motor vehicle in accordance with § 177.840(b).

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.

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 "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 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

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involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Dr. Magdy El-Sibaie
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 Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: SEG/kah