

March 20, 2007



U.S. Department
of Transportation

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

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 12303
(FOURTH REVISION)

EXPIRATION DATE: February 28, 2011

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Halliburton Energy Services
Duncan, OK
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of certain Division 2.1, 2.2 and Class 3 materials in a non-DOT specification cylinder used for oil well sampling. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.
 - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce.
 - c. This special permit serves as a Competent Authority Approval (CA-0001011), issued by the Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration of the United States Department of Transportation, in accordance with Part 1, Chapter 1, paragraph 1.1 of the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.301(f) in that a cylinder charged with a compressed gas that is not equipped with a pressure relief device is not authorized except as specified herein; and §§ 173.201, 173.302 and 173.304a in that a non-DOT specification cylinder is not authorized except as specified herein.

5. BASIS: This special permit is based on the application of Halliburton Energy Services dated March 16, 2007 submitted in accordance with § 107.109.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Compressed gases, flammable, n.o.s.	2.1	UN1954	N/A
Hydrocarbon gases mixtures, compressed, n.o.s.	2.1	UN1964	N/A
Hydrocarbon gases mixtures, liquefied, n.o.s.	2.1	UN1965	N/A
Nitrogen, compressed	2.2	UN1066	N/A
Petroleum crude oil	3	UN1267	I

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification oil well sampling cylinder, threaded on both ends, with a design pressure of 20,000 psig, and a maximum water capacity of 0.29 gallons (1100 cubic centimeters). Each cylinder must comply with the design calculations, drawings, material specifications, and engineering specifications submitted with Haliburton Energy Services, Inc.'s application for special permit on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA). In addition, each cylinder must conform with §§ 178.35 and 178.36 except as follows:

§ 178.35(e) *Safety devices.*

No pressure relief device is required on the completed cylinder. The cylinder must be equipped with elastomeric seals that relieve pressure when subjected to a pool fire.

§ 178.35(f) *Marking.*

Applies except that cylinders must be marked "DOT-SP 12303" in lieu of the DOT specification marking. The marking must be clearly visible and no less than 1/8 inches high.

§ 178.36(b) *Steel.*

Inconel Alloy 718 (UNS N07718) must meet the requirements of Halliburton specification 770.10907. Material must meet the requirements of the National Association of Corrosion Engineers (NACE) Specification MR-01-75 for suitability in hydrogen sulfide (H₂S) service.

§ 178.36(f) *Wall thickness.*

Minimum wall thickness may not be less than 0.325 inch. In no instance may the wall stress at the minimum specified test pressure exceed 67% of the minimum tensile strength of the material as determined from the reported physical test results.

§ 178.36(g) *Heat treatment.*

No heat treatment required for the completed cylinder. However, the heat treatment of the purchased stock material must conform to the Halliburton Technology Specification 770.10907 as applicable on file with OHMEA.

§ 178.36(j) *Flattening test.*

No flattening test is required.

§ 178.36(l) *Acceptable results for physical tests.*

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|----------------------------|--------------------------------------|
| (1) For Inconel bar stock: | |
| Minimum Tensile strength: | 170,000 psi |
| Minimum Yield strength: | 125,000 psi |
| Elongation: | 20% on 1 inch gage specimen or in 4D |
| Reduction in area: | 25 minimum |
| Hardness: | 40 Rc Maximum (363HB) |

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- (2) Yield strength must be determined by the "offset" method as prescribed in ASTM Standard E8. Cross-head speed of the testing machine may not exceed 1/8 inch per minute during yield strength determination.

b. TESTING - Each cylinder must be reinspected and hydrostatically retested in accordance with § 180.205 as prescribed for DOT 3A specification cylinders. Reheat treatment or repair of rejected cylinders is not permitted.

c. OPERATIONAL CONTROLS -

- (1) Each cylinder must be packed in the transportation box as specified in the application for special permit on file with the OHMEA.

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

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 modifications or changes are 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. The cylinders are authorized for oil well sampling service only.

d. Transportation of Division 2.1 (flammable gases) materials are not authorized aboard cargo vessel or aircraft unless specifically authorized in the hazardous materials table (§ 172.101).

e. Packages permanently marked 'DOT-E 12303', prior to October 1, 2007 may continue to be used under this special permit for the remaining service life of the packaging or

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until the special permit is no longer valid. Packages marked on or after October 1, 2007 must be marked 'DOT-SP 12303'.

f. Shipping papers displaying 'DOT-E 12303' may continue to be used until October 1, 2007, provided the special permit remains valid.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, and cargo aircraft only (see restrictions in paragraph 8.d. above.)
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 must furnish a current copy of this special permit to the air carrier before or at the time the shipment is tendered.
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

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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 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.

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: kah