



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety Administration**

**March 4, 2015**

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

DOT-SP 15555  
(SECOND REVISION)

EXPIRATION DATE: February 28, 2018

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Schlumberger Technology Corporation  
Rosharon Testing and Subsea Centre  
Schlumberger Rosharon Campus  
Rosharon, TX
2. PURPOSE AND LIMITATIONS:
  - a. This special permit authorizes the manufacture, mark, sale and use of non-DOT specification cylinders for use in oil well sampling. 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.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.301(f) in that the cylinder is not fitted with a pressure relief device; 173.302a, and 173.304a and (d) 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 Schlumberger Technology Corporation dated December 10, 2013, submitted in accordance with § 107.109 and additional information from Schlumberger Technology Corporation dated February 6, 2015 and February 9, 2015.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<b>Hazardous Material Description</b>			
<b>Proper Shipping Name</b>	<b>Hazard Class/ Division</b>	<b>Identification Number</b>	<b>Packing Group</b>
Compressed gas, toxic, flammable, n.o.s. Inhalation hazard Zone B	2.3	UN1953	N/A
Hydrocarbon gas mixture, compressed, n.o.s.	2.1	UN1964	N/A
Hydrocarbon gas mixture, liquefied, n.o.s.	2.1	UN1965	N/A
Hydrogen sulfide	2.3	UN1053	N/A
Liquefied gas, flammable, n.o.s.	2.1	UN3161	N/A
Nitrogen, compressed	2.2	UN1066	N/A
Petroleum gases, liquefied or Liquefied petroleum gas	2.1	UN1075	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packaging is a non-DOT specification oil well sampling cylinder with a maximum design pressure of 20,000 psig. Each cylinder must comply with the design calculations, drawings, material specifications and engineering specifications submitted with Oilphase's application for special permit on file with the Office of Hazardous Materials Special Permits & Approvals (OHMSPA). In addition, each cylinder must conform to Specification DOT-3A (§§ 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. The start to discharge pressure must not exceed the hydrostatic test pressure.

§ 178.35(f) Marking.

Applies except that cylinder must be marked "DOT-SP 15555" in lieu of DOT Specification marking.

§ 178.36(b) *Steel.*

Inconel 718 or Monel K-500 bar stock that is selected and heat treated in accordance with the Schlumberger-Oilphase Material Specifications 100007444 and 100021901 and is suitable for hydrogen sulfide service per the National Association of Corrosion Engineers (NACE) Specification MR-0175.

§ 178.36(f) *Wall thickness.*

The minimum wall thickness must not be less than 0.239 inch. The wall stress at the minimum specified test pressure may not exceed 67% of the minimum tensile strength of the material as determined from the physical test required in § 178.36(k) and (l).

§ 178.36(g) *Heat treatment.*

No heat treatment is required for the completed cylinder.

§ 178.36(g) *Flattening test.*

Flattening test is not required.

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

Inconel 718	
Minimum Tensile Strength:	175,000 psi
Minimum Yield Strength:	125,000 psi
Minimum Elongation:	20% on 2 inch gage specimen

Monel K-500

Minimum Tensile Strength: 135,000 psi  
Minimum Yield Strength: 100,000 psi  
Minimum Elongation: 20% on 2 inch gage specimen

b. TESTING - Each cylinder must be reinspected and hydrostatically retested in accordance with 49 CFR §§ 180.205 and 180.209 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 individually packed in the transportation box as specified in the Schlumberger SPMC-T Transit Case Specification document # 100979989 on file with the OHMSPA.
- (2) The maximum in-transportation pressure is 15,000 psig.
- (3) 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 the receptacles are exposed to fire.
- (4) The selection of cylinder materials, coatings, and maintenance of cylinders used in sour and/or corrosive gas service must be conducted in accordance with the material selection criteria detailed in the latest version of the NACE MR-0175/ISO 15156 standard and the recommendations provided in the Schlumberger "Tool Design Manual: Corrosion of Downhole Materials and Coatings" on file with the OHMSPA.

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.

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- b. A person who is not a holder of this special permit, but receives a packaging covered by this special permit, may reoffer it for transportation provided no modification or change is made to the packaging 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 either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) 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 packaging is manufactured under this special permit. It must be made available to a DOT representative upon request.
- f. The cylinders are authorized for oil well sampling service only.
- g. Transportation of Division 2.1 materials (flammable gases) or Division 2.3 materials (toxic gases) is not authorized aboard cargo vessel or aircraft unless specifically authorized in the Hazardous Materials Table (§ 172.101).
9. MODES OF TRANSPORTATION AUTHORIZED: Motor Vehicle, Cargo aircraft, Cargo Vessel, Rail Freight. (See paragraph 8.g. of this special permit).
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel, aircraft or motor vehicle used to transport packages covered by this special permit. The shipper must furnish a 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, 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

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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  
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) Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: MooreB/dl