1. **GRANTEE:** Schlumberger Technology Corp  
   Sugar Land, TX

2. **PURPOSE AND LIMITATION:**
   a. This special permit authorizes the transportation in commerce of a downhole logging tool (sonde) that contains an accelerator housing, one section of which is charged with sulfur hexafluoride to a pressure of 80 psig. 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 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 Parts 171-180, except as provided in this special permit.

5. **BASIS:** This special permit is based on the application of Schlumberger Technology Corp dated January 4, 2017 submitted in accordance with § 107.109.

Tracking Number: 2017016861
6. **HAZARDOUS MATERIALS (49 CFR § 172.101):**

<table>
<thead>
<tr>
<th>Hazardous Materials Description</th>
<th>Hazard Class/Division</th>
<th>Identification Number</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfur hexafluoride</td>
<td>2.2</td>
<td>UN1080</td>
<td>N/A</td>
</tr>
</tbody>
</table>

7. **SAFETY CONTROL MEASURES:** Prescribed packaging is a heavy wall, stainless steel cylinder measuring approximately 13-1/2 feet in length and 3-5/8 inches in diameter that contains electronic components. The cylinder is an integral part of the downhole logging tool (sonde). The internal volume of the sonde is 1100 cubic inches (in³), of which, the volume of the components is 825 in³ and the volume of the gas (void) is 275 in³ at a pressure of zero pounds per square inch gauge (psig). The sonde is closed and sealed with a male thread protector with O-ring seal at one end and a female thread protector with O-ring seal at the other end. An accelerator housing, located in the middle of the sonde, contains a vacuum tube surrounded by a charge of sulfur hexafluoride at a pressure of 80 psig. The volume of the accelerator housing is 143 in³, of which, the volume of the vacuum tube is 83 in³ and the volume of the sulfur hexafluoride is 60 in³ at 80 psig. Any sulfur hexafluoride that escapes from the accelerator housing would be retained in the sonde. The pressure at equilibrium would be 17.5 psig. At 17.5 psig, sulfur hexafluoride is not a compressed gas. Each package must be in accordance with the details, drawings, specifications and other information submitted in the application for special permit.

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 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. Each outside packaging must be plainly and durably marked “DOT-SP 9193”.

d. Materials offered for transportation by aircraft must be in conformance with the hazard communication requirements of Subparts C, D and E of Part 172.

9. **MODES OF TRANSPORTATION AUTHORIZED**: Motor vehicle, cargo aircraft, cargo vessel, passenger-carrying aircraft, rail freight.

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.

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

Issued in Washington, D.C.:


for William Schoonover
Associate Administrator for Hazardous Materials Safety


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: Andrew Eckenrode