February 19, 2021

U.S. Department
of Transportation

Pipeline and Hazardous
Materials Safety Administration

DOT-SP 21102

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. **GRANTEE:** (See individual authorization letter)

2. **PURPOSE AND LIMITATION:**
   
a. This special permit authorizes the discharge of Division 2.1 and 2.2 hazardous materials from an authorized DOT specification cylinder without removing the cylinder from the vehicle on which it is transported. 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. Unless otherwise stated herein, this special permit consists of the special permit authorization letter issued to the grantee together with this document.

3. **REGULATORY SYSTEM AFFECTED:** 49 CFR Parts 106, 107 and 171-180.

4. **REGULATIONS FROM WHICH EXEMPTED:** 49 CFR § 172.301(c) in that the requirement to mark each package with the special permit number is waived; § 177.834(h) in that discharge of the material during transportation is authorized.

5. **BASIS:** This special permit is based on the application of Subaru Research & Development, Inc. dated August 24, 2020 submitted in accordance with § 107.105 and the public proceeding thereon.
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>Compressed gas, flammable, n.o.s. (contains hydrogen and helium)</td>
<td>2.1</td>
<td>UN1954</td>
<td>N/A</td>
</tr>
<tr>
<td>Compressed gas, n.o.s (contains nitrogen and carbon dioxide)</td>
<td>2.2</td>
<td>UN1956</td>
<td>N/A</td>
</tr>
<tr>
<td>Air, compressed</td>
<td>2.2</td>
<td>UN1002</td>
<td>N/A</td>
</tr>
</tbody>
</table>

7. **SAFETY CONTROL MEASURES:**

a. **PACKAGING:** Packagings prescribed are DOT Specification 3AL cylinders. The cylinders are part of Horiba Instruments’ OBS-ONE Portable Emission Measurement System as described in the application for special permit on file with the Office of Hazardous Materials Safety Approvals and Permits Division. The nominal water capacity of the cylinders may not exceed 2.5 U.S. water gallons. The nominal diameter of the cylinders may not exceed 6.75 inches, and the nominal height may not exceed 16 inches.

b. **TESTING:** Each cylinder must be requalified as specified in 49 CFR § 180.209 for DOT Specification 3AL cylinders.

c. **OPERATIONAL CONTROLS:**

(1) Cylinders may not be offered for transportation unless contained within the cylinder steel alloy cage specially designed by Subaru Research & Development, Inc. and as described in the application for special permit.

(2) The flow of Division 2.1 materials must automatically shut-off if the gas line is accidentally interrupted or leaks occur downstream of the regulator.
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. The applicability of this special permit is limited to in-field measurement of engine emissions during normal operation over roads and highways as mandated by 40 CFR, Part 1065, Subpart J.

d. The marking requirement in § 172.301(c) is waived.

9. **MODES OF TRANSPORTATION AUTHORIZED:** Motor vehicle.

10. **MODAL REQUIREMENTS:** A current copy of this special permit must be carried aboard each motor vehicle used to transport packages covered by this special permit.

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.:

[Signature]

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 https://www.phmsa.dot.gov/approvals-and-permits/hazmat/special-permits-search. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: Casillas