DOT-SP 21162
(FIRST REVISION)

(FOR RENEWAL, SEE 49 CFR 107.109)

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

2. **PURPOSE AND LIMITATION:**
   a. This special permit authorizes the transportation in commerce of non-DOT specification type IV composite overwrapped pressure vessels (COPVs) charged with gaseous hydrogen (H2). 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 § 173.301(a)(1) in that non-specification cylinders are not authorized, as specified herein.

5. **BASIS:** This special permit is based on the application of Hexagon Masterworks, Inc. dated January 10, 2023, submitted in accordance with § 107.105 and the public proceeding thereon.
6. **HAZARDOUS MATERIALS (49 CFR 172.101):**

<table>
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<th>Hazardous Materials Description</th>
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<tr>
<td><strong>Proper Shipping Name</strong></td>
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<td>Hydrogen, compressed</td>
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7. **SAFETY CONTROL MEASURES:**

a. **PACKAGING:** Prescribed packagings are non-DOT specification, type IV composite overwrapped pressure vessels (COPVs) with plastic-liner wrapped with carbon fiber and epoxy resin (specific designs may also have an optional glass fiber overwrap) with metallic boss ends. COPVs have a maximum water capacity of 790 liters and maximum working pressure of 700 bar (10,150 psi) and are used for hydrogen (H2) powered road vehicles. The COPVs must be designed, tested and verified in accordance with ANSI HGV 2-2014 (EC 79 EU 406/2010) and HEMW documents on file with the Office of Hazardous Materials Safety (OHMS).

b. **OPERATIONAL CONTROLS:**

(1) Each COPV shipped under this special permit is limited to maximum internal pressure less than or equal to 5% of the design working pressure of the COPV.

(2) The COPVs shipped under this special permit must be in rigid outer packaging with appropriate inner packaging to prevent tank movement, and protective inserts for the tank valve. The outside of each outer packaging must be clearly marked “DOT-SP 21162”.

(3) Transportation of these COPVs is limited to:

   (i) Shipments from Hexagon Group facility to any relevant destination within the continental US;

   (ii) Shipments from the manufacturing assembly plant in Kelowna, BC (assembled into fully functioning road certified fuel systems) for customer deliveries within the continental US; and

   (iii) Shipments from Toyota Motor North America’s California facility to various fill stations throughout the continental US.
c. **Testing (Requalification):** Periodic requalification in accordance with 49 CFR Part 180 is not required.

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. This special permit in no way affects the need to obtain any required authorizations from other agencies of the United States Government or from the competent authorities of countries of origin, transit, and destination.

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

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.:

[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](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: Andrew Eckenrode