



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

January 22, 2024

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 21521
(SECOND REVISION)

EXPIRATION DATE: 2027-07-31

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Honda Motor Co., Ltd.
Tokyo, Japan

U.S. AGENT: Honda Development & Manufacturing of America, LLC
Marysville, OH

2. PURPOSE AND LIMITATIONS:

a. This special permit authorizes the transportation in commerce of non-DOT specification composite overwrapped tanks (COPVs), containing compressed hydrogen. The COPVs must be shipped with a maximum hydrogen gas pressure of 58.0 psi/0.4 MPa. This special permit provides no relief from the Hazardous Materials Regulations (HMR), the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI), or the International Maritime Dangerous Goods (IMDG) Code 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.

c. No party status will be granted to this special permit.

d. This special permit serves as an approval under Part 6, paragraph 5.1.1.2 of the ICAO TI, paragraph 6.2.1.1.2 of the IMDG Code, and as a "Competent Authority Approval" as defined under 49 CFR § 107.1.

Tracking Number: 2023094663

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180 and the IMDG Code.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.302(a)(1) in that a non-DOT specification cylinder is authorized and Part 180 in that periodic inspection and testing are not required.
5. BASIS: This special permit is based on the application of Honda Motor Co., Ltd. dated September 18, 2023, submitted in accordance with § 107.105 and the public proceeding thereon.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Hydrogen, compressed	2.1	UN1049	N/A

7. SAFETY CONTROL MEASURES:

a. Prescribed packagings are non-DOT specification composite overwrapped pressure vessels (COPVs) with thermoplastic liner wrapped with carbon fiber and epoxy resin followed by glass fiber overwrap. The COPVs must be designed and tested in accordance with the Global Automotive Regulation UN-R134 Article 5 and UN Global Technical Regulation No 13 for Hydrogen and Fuel Cell Vehicles as indicated on specifications 17501-6GS-A010 and 17502-6GS-A010 and in additional information on file with the Office of Hazardous Materials Safety (OHMS). Authorized COPV designs must be packaged in either of the following outer packagings:

- (1) Rigid fiberboard casing with packaging materials and components that include enhanced, rigid inner foam inserts and rigid foam bracing to prevent tank movement and provide protection for the COPV valve. The packaging and number of COPVs must conform to the February 8, 2023, application on file with OHMS); or
- (2) Steel rack packaging that includes a ½ steel plate base, internal lashings to secure tanks, fiberboard top with metal bracing made from 2” steel square tubing, and hardened EPS foam inserts. The packaging and number of COPVs must conform to the September 18, 2023, application on file with OHMS.

b. MARKING:

(1) The outside of each outer packaging must be plainly and durably marked “DOT-SP 21521”.

(2) The outer packaging must display a Division 2.1 FLAMMABLE GAS label, as well as the UN ID number, and Proper Shipping Name: UN1049 Hydrogen, compressed. The main COPV packaging must indicate a net quantity of hydrogen of 0.023 kg or less, while the sub COPV packaging must indicate a net quantity of 0.024 kg or less.

c. OPERATIONAL CONTROLS:

(1) Each COPV must be shipped with a maximum hydrogen gas pressure of 58.0 psi/0.4 MPa.

(2) Within Japan, the COPVs must be filled, transported, and prepared for export to the United States in accordance with the additional information submitted on March 7, 2023.

(3) Transportation of the COPVs to and within the United States must be in accordance with the additional information submitted on March 7, 2023. Within the United States, the grantee may only offer hazardous materials (i.e., the grantee is not authorized as a carrier). Within the United States, the COPVs may not be filled or refilled.

d. TESTING: Since these COPVs are shipped to be permanently installed as part of the Fuel Cell Electric Vehicle, periodic inspection, and testing (requalification in accordance with Part 180) is not required under this 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 and it is offered for transportation in conformance with this special permit, the HMR, the ICAO TI, and the IMDG Code.

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, or 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.:

A handwritten signature in blue ink, appearing to read "W. Schoonover", is written over a faint, light blue circular stamp.

for William Schoonover
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-13, 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 <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: AS