



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

APR 05 2017

Mr. Jason Miller
Pine Environmental Services LLC
HSE Manager
10635 Richmond Ave #100
Houston, TX 77042

Ref. No.: 16-0010

Dear Mr. Miller,

This responds to your January 12, 2016 email regarding the applicability of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) to the shipment of “UN1049, Hydrogen, compressed, 2.1” in small (5” length, 1.5” diameter) non-specification metal cylinders. Your questions are paraphrased and answered below:

Q1. You seek confirmation that non-specification cylinders containing compressed hydrogen may not be transported by highway or cargo aircraft as they do not meet the requirements of § 173.301 or any of the exceptions prescribed in § 173.306.

A1. Your understanding is correct. As required by § 173.301(a)(1), compressed gases must be in UN pressure receptacles built in accordance with the UN standards or in metal cylinders and containers built in accordance with the DOT and ICC specifications. This requirement is applicable to all modes of transport. In accordance with § 173.306(a)(1), when in containers of not more than 4 fluid ounces capacity (7.22 cubic inches or less), such containers are not subject to specification cylinder requirements. However, as the cylinder in your scenario exceeds a capacity of 7.22 cubic inches, this exception would not apply. For transportation by aircraft, the package must also conform to the applicable requirements of §173.27.

Q2. You seek confirmation that non-specification cylinders containing compressed hydrogen may not be transported by highway or cargo aircraft in accordance with any of the exceptions authorized in § 173.306, as the gas is pressurized up to 1800 psi and therefore does not meet any of the conditions provided in the section.

A2. Your understanding is correct. The cylinders described in your scenario do not meet any of the conditions for exception prescribed in § 173.306.

Q3. You note that Special Permit DOT-SP 7607 (Twelfth Revision), which authorizes compressed hydrogen on passenger aircraft under certain conditions, expired on March 31, 2015. You seek confirmation that an individual may not use this permit after the expiration date unless stated otherwise.

A3. Your understanding is correct. A packaging referenced in a special permit authorizing the manufacture, mark, sale, and use of a packaging cannot be used after the special permit's expiration date unless the holder of the special permit requested a renewal prior to the expiration of the current special permit.

Q4. You ask whether a renewal request has been granted for DOT-SP 7607?

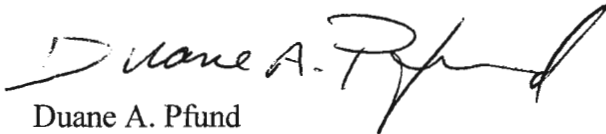
A4. A modification and renewal were requested. Both the modification and renewal applications were denied on August 4, 2016.

Q5. Being a rental and service company, you ask if the same non-specification cylinder described above may be provided to your customers "over the counter" when filled with compressed hydrogen.

A5. Section 171.1(b) and (c) provides that requirements of the HMR apply to each person who offers a hazardous material for transportation in commerce and the transportation of a hazardous material in commerce. The transportation of a hazardous material by a private individual for non-commercial personal use is not considered transportation in commerce. Therefore, the requirements of the HMR are not applicable to fillers (offerors) or private individuals for the use, recharging, or transportation of cylinders by private individuals for personal use. However, an offeror renting cylinders filled with a hazardous material to a commercial client, and the subsequent transport by that client, would be subject to the requirements of the HMR.

I hope this answers your inquiry. If you need additional assistance, please contact the Standards and Rulemaking Division at (202) 366-8553.

Sincerely,

A handwritten signature in black ink that reads "Duane A. Pfund". The signature is written in a cursive style with a large, sweeping initial "D".

Duane A. Pfund
International Standards Coordinator
Standards and Rulemaking Division

Goodall, Shante CTR (PHMSA)

173.301
General Requirements
16-0010

From: Geller, Shelby CTR (PHMSA)
Sent: Tuesday, January 12, 2016 5:12 PM
To: Hazmat Interps
Subject: FW: Letter of Interpretation

Dear Shante and Alice,

Forwarded is a request for a formal letter of interpretation. I spoke with Mr. Miller regarding his request.

Thanks,
Shelby

From: Jason Miller [<mailto:jmiller@pine-environmental.com>]
Sent: Tuesday, January 12, 2016 10:48 AM
To: PHMSA HM InfoCenter
Subject: Letter of Interpretation

To Pipeline Hazardous Materials Safety Administration,

Please can you clarify the below questions

- 1) A small metal cylinder (Approx 5" length, 1.5" Diameter) containing compressed Hydrogen UN1049 that bears no DOT or UN Markings cannot be transported by Highway or Air-Cargo as it does not meet the requirements under **173.301** General Requirements for shipment of compressed gases and other hazardous materials in cylinders, UN Pressure receptacles and spherical pressure vessels being that it is a NON-DOT/UN specification cylinder.
- 2) Furthermore is it correct that this same cylinder cannot be transported by Highway or Air, Cargo under **173.306** Limited quantities of compressed gases, as the gas is pressurized up to 1800 PSI and does not meet the requirements of this sub-section?
- 3) Under Special Permit SP-7607 has an expiration date of 03/31/2015 and need verification that an individual cannot use this permit thereafter unless stated otherwise?
- 4) Has a renewal request been granted for SP-7607?
- 5) If a renewal request has been granted can someone hand carry this cylinder onto passenger carrying aircraft or does it need to be shipped via a passenger carrying aircraft using a service such as Fed-Ex or UPS?
- 6) Being a rental and service company, can this same cylinder be provided to our customers over the counter full of hydrogen as it's not in commerce?

Regards

Jason Miller
HSE Manager



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