



U.S. Department  
of Transportation  
**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue, SE  
Washington, DC 20590

May 14, 2024

Mr. Daniel Stoehr  
Daniels Training Services, Inc.  
P.O. Box 1232  
Freeport, IL 61032

Reference No. 22-0038

Dear Mr. Stoehr:

This letter is in response to your May 2, 2022, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) pertaining to the definition of a motor vehicle and applicability of the HMR to a bicycles.

We have paraphrased and answered your questions as follows:

- Q1. You ask whether a bicycle or other vehicle (e.g., skateboard, scooter)—moved entirely by human power—is considered a “motor vehicle” as defined by the HMR.
- A1. The answer is no. The HMR govern the movement of a hazardous material by rail car, aircraft, motor vehicle, and vessel (see § 171.1(c)(1)). As defined in § 171.8, a “motor vehicle” is “a vehicle, machine, tractor, trailer, or semitrailer, or any combination thereof, propelled or drawn by mechanical power and used upon the highways in the transportation of passengers or property.” The term “motor vehicle,” as defined in § 171.8, does not include non-motorized bicycles (i.e., non-motorized two-wheeled vehicles). Please note that a “transport vehicle” as defined in § 171.8 is “a cargo-carrying vehicle such as an automobile, van, tractor, truck, semitrailer, tank car or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (trailer, rail car, etc.) is a separate transport vehicle.” Because the HMR regulate the transportation of hazardous materials in commerce, hazardous materials transported in a transport vehicle may be subject to the requirements of the HMR, as applicable.
- Q2. You ask whether a bicycle or other vehicle—primarily moved by human power but equipped with an electric motor to provide additional power when needed—is considered a “motor vehicle” as defined in the HMR.

- A2. The answer is yes. As noted above, a “motor vehicle” is defined as “a vehicle, machine, tractor, trailer, or semitrailer, or any combination thereof, propelled or drawn by mechanical power and used upon the highways in the transportation of passengers or property.” Thus, a two-wheeled vehicle such as an electric bicycle—as described in your scenario—equipped with an electric motor and thus “propelled or drawn by mechanical power” would be considered a “motor vehicle” as defined in the HMR when used to transport passengers or property. However, for purposes of the HMR, it is predicated on use of the vehicle for transport of hazardous material. Also bear in mind that as further stated in § 171.1(d)(5), a hazardous material transported by an individual for non-commercial purposes in a private motor vehicle, including a leased or rented motor vehicle is not subject to the HMR.
- Q3. You ask whether a bicycle or other vehicle—powered entirely by an electric motor—is considered a “motor vehicle” as defined in the HMR.
- A3. The answer is yes. See answer A2.
- Q4. You ask whether a vehicle, which is not considered a “motor vehicle” as defined in the HMR but is used to transport hazardous materials in commerce on the highway, is subject to the HMR.
- A4. The answer is no. As stated in A1, the HMR defines a “motor vehicle” in § 171.8 as “a vehicle, machine, tractor, trailer, or semitrailer, or any combination thereof, propelled or drawn by mechanical power and used upon the highways in the transportation of passengers or property.” Therefore, a human powered bicycle using entirely human power as stated as described in A1, would not be subject to the HMR.

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,



Steven Andrews  
Acting Chief, Regulatory Review and Reinvention Branch  
Standards and Rulemaking Division

**From:** [INFOCNTR \(PHMSA\)](#)  
**To:** [Dodd, Alice \(PHMSA\)](#)  
**Cc:** [Hazmat Interps](#)  
**Subject:** FW: Request Letter of Interpretation - Is a Bicycle a Motor Vehicle?  
**Date:** Monday, May 2, 2022 4:54:14 PM

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Hello Alice,

Please see the below interpretation request.

Let me know if you have any questions.

Regards,

-Breanna

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**From:** Daniel Stoehr <info@danielstraining.com>  
**Sent:** Friday, April 15, 2022 3:35 PM  
**To:** INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>  
**Subject:** Request Letter of Interpretation - Is a Bicycle a Motor Vehicle?

**CAUTION:** This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Please consider the following:

- 49 CFR 171.1 establishes the applicability of the Hazardous Materials Regulations (HMR).
- At 49 CFR 171.1(c) applicability of the HMR is assigned to certain transportation functions, including movement of the HazMat in commerce.
- Per 49 CFR 171.1(c)(1), "Movement" includes: "movement of a hazardous material by rail car, aircraft, motor vehicle, or vessel..."
- The definition of motor vehicle at 49 CFR 171.8 includes, "...a vehicle, machine, tractor, trailer, or semitrailer, or any combination thereof, propelled or drawn by mechanical power..."
- Under common usage a bicycle moved entirely by human power is considered to be a vehicle.

Question #1:

- Is a bicycle or other vehicle - e.g., skateboard, scooter - moved entirely by human power considered to be a motor vehicle as defined by USDOT/PHMSA?

Question #2:

- Is a bicycle or other vehicle primarily moved by human power but equipped with an electric motor to provide additional power when needed considered to be a motor vehicle as defined by USDOT/PHMSA?

Question #3:

Is a bicycle or other vehicle powered entirely by an electric motor considered to be a motor vehicle as defined by USDOT/PHMSA?

Question #4:

- If a vehicle is not a motor vehicle as defined by USDOT/PHMSA and it is used to transport hazardous materials in commerce on the highways, is such transportation subject to the HMR?

Thank you and please advise.

Daniel Stoehr

Daniels Training Services, Inc.

[815.821.1550](tel:815.821.1550)

[Info@DanielsTraining.com](mailto:Info@DanielsTraining.com)

[www.DanielsTraining.com](http://www.DanielsTraining.com)

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