



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

1200 New Jersey Avenue, SE  
Washington, DC 20590

September 24, 2025

James Owen  
Manager Dangerous Goods  
Matson Navigation Co.  
3426 E Libby St.  
Phoenix AZ 85032

Reference No. 25-0096

Dear Mr. Owen:

This letter is in response to your July 15, 2025 email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to lithium battery-powered vehicles. It is your understanding that according to PHMSA's lithium battery guide<sup>1</sup>, vehicles shipped as "UN3171, Battery-powered vehicle or Battery-powered equipment, 9" are excepted from all HMR requirements under § 176.905 with certain conditions. Moreover, you believe that when the International Maritime Dangerous Goods (IMDG) Code introduced "UN3556, Vehicle, lithium ion battery powered, 9" it created a conflict with the aforementioned exception and the stricter requirements for shipment of lithium batteries under § 173.185(c)(1) in the HMR. These stricter requirements only allow shipment under exceptions for lithium ion batteries up to 100 Watt-hours (Wh). You question how vehicles powered by large batteries, such as a particular vehicle with a 123,000 Wh battery, can be excepted from specific requirements while a standalone battery slightly over 100 Wh cannot. Therefore, you seek clarification regarding the differing treatment of lithium ion batteries as a standalone versus vehicle-installed applications under the HMR and IMDG Code regulations.

We have paraphrased and answered your questions as follows:

- Q1. How is it possible that a lithium ion battery with a capacity greater than 100 Wh is more regulated than a much larger battery, as in the example given in the letter, which is a component part of a vehicle?
- A1. The HMR allows exceptions for certain materials, such as vehicles, based on comparative hazards in transportation. Motor vehicles are subject to vehicle safety standards (*e.g.*, the

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<sup>1</sup> [Lithium Battery Guide for Shippers, Revised October 2024,](https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2024-11/Lithium-Battery-Guide-2024.pdf)  
<https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2024-11/Lithium-Battery-Guide-2024.pdf>

National Highway Traffic Safety Administration Federal Motor Vehicle Safety Standards). Additionally, the body of a vehicle itself offers protection against damage during normal transportation conditions. Thus, based on certain additional conditions, such as a lithium ion battery that is a component of a motor vehicle being subject to UN 38.3 testing, a vehicle is afforded exceptions from further regulation.

- Q2. Given the IMDG Code adoption of the “UN3556” description for a lithium ion battery-powered vehicle, can vehicles consigned under “UN3556” qualify for the exception outlined in Part 3, Chapter 3.3, Special Provision 961.5?
- A2. No. Special Provision 961.5 applies to a wet or dry electric storage battery or a sodium battery. A lithium ion battery is neither a wet nor a dry electric storage battery. A lithium ion battery has a distinct battery chemistry due to its chemical composition and associated risks. However, a lithium ion battery-powered vehicle may still be excepted from further regulation in accordance with IMDG Code provision found in 961.1.
- Q3. Given that the IMDG Code Special Provision 961 and § 176.905(i) of the HMR have the same language but now that there are differing hazardous material descriptions for lithium ion battery-powered vehicles, how is the exception applied under the HMR?
- A3. Domestically, the hazardous material identification number “UN3556” has not yet been formally adopted into the HMR. In general, electric vehicles (*i.e.*, battery-powered vehicles) may be shipped under the existing description as “UN3171,” which covers a battery-powered vehicle powered by lithium ion batteries. Furthermore, the HMR allows for the use of international standards, such as the IMDG Code, for domestic transportation under certain conditions outlined in 49 CFR Part 171, Subpart C, and in combination with an enforcement policy notice issued by PHMSA which authorizes use of the current edition of the IMDG Code (Amendment 42-24) that includes the “UN3556” identification number.<sup>2</sup> However, it should be noted that there is no difference in the application of exceptions between the use of “UN3171” and “UN3556” for electric vehicles powered by lithium ion batteries. The new identification number merely provides a more distinct hazardous material description.
- Q4. Does PHMSA consider a lithium ion battery to be a dry electric storage battery, and if not, how does a lithium ion battery meet the exception within § 176.905(i)?

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<sup>2</sup> Notice of Enforcement Policy Regarding International Standards 2024, <https://www.phmsa.dot.gov/regulatory-compliance/phmsa-guidance/notice-enforcement-policy-regarding-international-standards>

A4. No. As stated in answer A2, a lithium ion battery is not considered a dry electric storage battery for purposes of the HMR or the IMDG Code. Furthermore, a lithium ion battery-powered vehicle may still be eligible for exception from regulation in accordance with Special Provision 961.1 or its counterpart in § 176.905(i)(1).

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

Sincerely,

A handwritten signature in blue ink, appearing to read 'Dirk DerKinderen', written in a cursive style.

Dirk DerKinderen  
Chief, Standards Development Branch  
Standards and Rulemaking Division

**From:** [INFOCNTR \(PHMSA\)](#)  
**To:** [Baker, Yul \(PHMSA\)](#)  
**Cc:** [Hazmat Interps](#)  
**Subject:** FW: Lithium Battery Interpretation Request  
**Date:** Tuesday, July 15, 2025 10:44:13  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)  
[image006.png](#)  
[image007.png](#)

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Good morning,

Mr. Owen submitted a second request for a letter of interpretation.

Please let me know if anything else is needed.

Best,

Aminah

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**From:** James Owen <JOwen@matson.com>  
**Sent:** Monday, July 14, 2025 5:06 PM  
**To:** INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>  
**Subject:** Lithium Battery Interpretation Request

**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.

To whom it may concern,

I am requesting an interpretation of 176.905(1)(5) in relation to lithium battery powered vehicles. The Lithium Battery Guide published on the PHMSA website states under section 09 that vehicles shipping under UN3171 are exempt from all requirements of the HMR if the requirements of 176.905 are met.

**Additional Vessel Transport Requirements (§§ 176.905/906):**

- See § 176.905 for additional requirements and exceptions for vehicles.
- Vessel shipments conforming to any applicable requirements in §§ 173.220, 176.905, and 176.906 are not subject to any other requirements of the HMR.

For lithium-ion battery powered vehicles this is in direct contrast to the exemption for lithium batteries. The exemption under 173.185(c)(i) only allows for lithium-ion batteries up to 100wh's. How is it possible that a lithium-ion battery at 101wh's is not exempt but a Tesla Cybertruck which has a watt hour rating of 123,000 watt hours can be exempted from all requirements?

Furthermore, IMDG Code 42-24 created UN3556 and defined it separately from UN3171. The exemption noted above for vehicles does not by definition appear to include lithium batteries.

IMDG Code SP 388

- △ Entry UN 3171 only applies to vehicles and equipment powered by wet batteries, metallic sodium batteries or sodium alloy batteries, transported with these batteries installed.
- UN 3556 VEHICLE, LITHIUM ION BATTERY POWERED, UN 3557 VEHICLE, LITHIUM METAL BATTERY POWERED and UN 3558 VEHICLE, SODIUM ION BATTERY POWERED, as applicable, apply to vehicles powered by lithium ion, lithium metal or sodium ion batteries transported with the batteries installed.

IMDG Code SP 961.5

- .5 vehicles solely powered by a wet or dry electric storage battery or a sodium battery, and the battery is protected from short circuit.

Is it your department's position that vehicles consigned under the new UN3556 entry would qualify for the exemption? Both IMDG and 49CFR have the same verbiage in the exemption but now they have different definitions for a vehicle powered by a lithium-ion battery.

Does DOT/PHMSA classify a lithium-ion battery as a dry electric storage battery? If not, how does a lithium-battery meet this exemption?

A LOI can be mailed to:

James Owen  
Matson Navigation Co.  
3426 E Libby St  
Phoenix AZ 85032

**NOTE: Approval of Shipping Papers is always subject to the Port/Vessel's ability to accommodate the dangerous goods with other commodities, stowage restrictions and permit requirements.**

For assistance from the DG Team after 8PM PST please call a member of the team directly.



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