



Commercial Vehicle Safety Alliance

Improving commercial motor vehicle safety and enforcement

April 22, 2025

Acting Administrator Kochman
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
1200 New Jersey Ave. SE
Washington, DC 20590

RE: Additional Regulatory Oversight and Guidance Necessary for the Safe Transportation of Lithium Batteries

Dear Acting Administrator Kochman,

As the prevalence of shipments containing lithium batteries continues to grow, so do concerns around the safe transportation of those hazardous materials. Several recent incidents involving lithium battery shipments have further raised the profile of this issue. While requirements are in place to provide for the safe shipment of lithium batteries, it is true that the transportation of lithium batteries presents increased safety risks, as the product is susceptible to runaway thermal reactions, creating unique challenges to responding to an incident involving lithium batteries, both for first responders and the public. To improve the safe transportation of lithium batteries and to better prepare emergency responders when an incident occurs, CVSA is recommending a series of changes to how lithium batteries are regulated, as well as additional guidance for emergency responders. These changes are critical to ensuring the safe and reliable transportation of lithium battery shipments on our roadways.

CVSA is a nonprofit organization comprised of local, state, provincial, territorial and federal commercial motor vehicle safety officials and industry representatives. The Alliance aims to prevent commercial motor vehicle crashes, injuries and fatalities and believes that collaboration between government and industry improves road safety and saves lives. Our mission is to improve commercial motor vehicle safety and enforcement by providing guidance, education and advocacy for enforcement and industry across North America.

As noted above, shipments containing lithium batteries continue to grow and jurisdictions are seeing an increase in incidents involving lithium batteries. In July of 2024, a commercial motor vehicle crash involving lithium batteries that caught fire resulted in the closure of a portion of Interstate 15, which lasted for 44 hours. In September 2024, a fire from an overturned commercial motor vehicle carrying lithium-ion batteries disrupted operations at the Port of Los Angeles, forcing the closure of several terminals and the Vincent Thomas Bridge, while another crash involving a commercial motor vehicle carrying lithium batteries that caught fire occurred in Nevada.

In light of incidents like the ones in California and Nevada and the steady increase in the prevalence of lithium batteries being transported on our roadway, the CVSA Hazardous Materials Committee met in November of 2024 to discuss the incidents and how best to prevent such events from occurring in the future. The committee agreed that these events highlight the need for additional regulatory oversight of lithium battery shipments, as well as the need for additional guidance and training related to emergency response. The committee approved a series of recommendations, which are outlined below.

Reclassify Lithium Batteries to Division 4.3

First, CVSA recommends that PHMSA consider reclassifying lithium batteries as a Division 4.3 material. Currently, lithium battery shipments are classified as Class 9 materials, which comes with less stringent requirements, as Class 9 materials typically pose a lower risk than other material classes. Given the rising number of significant incidents involving lithium batteries, it is clear that lithium battery shipments require additional oversight and CVSA recommends that PHMSA reconsider the Class 9 classification of lithium batteries, given the risks associated when an incident occurs.

Reclassifying lithium batteries as a Division 4.3 material would apply higher regulatory requirements to those loads, including placarding requirements for the shipment and additional driver requirements, including having a hazardous materials (HM) endorsement. Requiring the HM endorsement would ensure that better qualified drivers will be responsible for moving lithium battery shipments, and the placarding requirements will ensure that those drivers have a better understanding of the risks associated with the load they are moving. Applying these higher standards to lithium battery shipments would help address the additional risks associated with the transportation of lithium batteries, providing a higher level of safety on our roadways.

Alternatives to Reclassify Lithium Batteries to Division 4.3

Reclassifying lithium batteries as a Division 4.3 material is the most direct way to improve the regulatory oversight of these shipments. However, if PHMSA decides against reclassifying lithium batteries, there are other measures the agency can take to improve the safe transportation of lithium batteries.

First, CVSA recommends that the agency update the registration requirements in 49 CFR § 107.601 to include bulk shipments of lithium batteries. Currently, Class 9 materials do not require a hazardous materials registration unless the shipment meets the bulk packaging thresholds outlined in § 107.601(d), which is currently in excess of 468 cubic feet. Due to the nature of lithium batteries, it is uncommon for a lithium battery shipment to meet this bulk packaging threshold, and therefore the registration requirements generally do not apply. To address this and provide for a higher level of safety, CVSA recommends that PHMSA amend § 107.601 to include any lithium battery that meets the bulk packaging definition in § 171.8.

In addition, CVSA recommends that PHMSA work with the Federal Motor Carrier Safety Administration (FMCSA) to amend the Federal Motor Carrier Safety Regulations (FMCSR) to require that drivers transporting lithium batteries obtain an HM endorsement that would meet the placarding threshold for a Table 2 hazardous material, without regard to the current Class 9 placarding exception in § 172.504(f)(9). Finally, currently, the U.S. is the only country

that does not require Class 9 materials to be placarded. CVSA recommends that PHMSA amend the exception in § 172.504(f)(9) to exclude lithium battery shipments.

Expand Maximum Charge Capacity Threshold to All Transportation Modes

In addition to addressing the placarding and driver qualification requirements addressed above, CVSA recommends that PHMSA consider revising the regulations to extend the 30% state of charge capacity restriction found in § 172.102 Special Provision A100 for lithium batteries to all modes of transportation. Currently, § 172.102 Special Provision A100 requires that lithium batteries being transported by air must not be transported at a state of charge in excess of 30% of their rated capacity. At the lower state of charge, lithium batteries present reduced risk, as the charge level of the battery directly correlates to the severity of the fire, should an incident occur. Given the significant impacts to safety and the associated delays and disruptions on our roadways when an event involving lithium batteries occurs, it is imperative that PHMSA put protections in place to mitigate the severity of those incidents. Applying the lower state of charge requirement currently in place for lithium batteries transported by air to all modes would significantly improve safety when these incidents occur, regardless of the mode.

Require Watt Hours Declaration

Finally, CVSA recommends that PHMSA begin requiring that the watt-hours of a lithium-ion battery being shipped be included on the shipping papers. Currently, there is no requirement for shipments of lithium batteries to be marked with the watt-hours, either on the package or on the shipping papers. However, this information is critical for hazardous materials inspectors to determine which regulations apply to the shipment. In order to properly enforce the regulations and ensure that shipments of lithium batteries are being moved in compliance with the necessary safety regulations, it is imperative that the inspector be able quickly and consistently determine the watt-hours associated with the shipment. To address this, CVSA recommends that PHMSA update the shipping paper requirements in § 172.203 to require that the watt-hours of the lithium-ion batteries in the shipment be on the shipping papers or as an alternative be marked on the package.

Improve Lithium Battery Guidance in the Emergency Response Guidebook

In addition to the regulatory updates recommended above, improvements are needed to PHMSA's Emergency Response Guidebook in order to provide emergency responders with the information necessary to respond to incidents involving large lithium battery shipments. Specifically, CVSA recommends that PHMSA update the Emergency Response Guidebook with information addressing how to respond to incidents involving UN3536 or other bulk movements of lithium batteries. These shipments contain higher amounts of lithium batteries and are resulting in more significant events when an incident occurs. Emergency responders need additional guidance from PHMSA on how to respond to and mitigate these events when they occur.

The number of lithium battery shipments on our roadways will only continue to grow in the coming years, and we are continuing to see larger shipments of lithium batteries, including the UN3536 shipments. Given this, and looking at recent incidents involving lithium batteries, it is clear that more must be done to provide for the safe transportation of these shipments across all modes. To address this need, CVSA encourages PHMSA to consider implementing the regulatory changes recommended in this letter.

CVSA works to closely monitor, evaluate and identify potentially unsafe transportation processes and procedures as well as to help facilitate and implement best practices for enhancing safety on our roadways. Commercial motor vehicle safety continues to be a challenge and we need the involvement of all affected parties to help us better understand these issues and put into place practical solutions. We appreciate the agency's commitment to safety and stakeholder involvement.

If you have further questions or comments, please do not hesitate to contact me at 202-998-1008 or collin.mooney@cvsa.org.

Respectfully,

A handwritten signature in black ink, appearing to read 'Collin B. Mooney'.

Collin B. Mooney, MPA, CAE
Executive Director
Commercial Vehicle Safety Alliance