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May 4, 2026

Mr. William Quade  
Associate Administrator  
Office of Hazardous Materials Safety  
Pipeline and Hazardous Materials Safety Administration  
U.S. Department of Transportation  
1200 New Jersey Avenue SE  
Washington, D.C. 20590-0001

**Re: Hazardous Materials: Request for Feedback on Hazmat Transportation Risks: Heavy-Duty Electric Vehicles Versus Internal Combustion Engine Motor Carriers; Docket No. PHMSA-2025-0678**

Dear Associate Administrator Quade:

These comments are submitted by the National Energy & Fuels Institute (NEFI) to this docket notice seeking public input on the safety risks, operational challenges, and regulatory considerations associated with transporting hazardous materials using heavy-duty electric vehicles (EVs) compared to internal combustion engine (ICE) motor carriers (i.e., gasoline or diesel). 91 Fed. Reg. 4784 (February 2, 2026).

NEFI represents wholesale and retail distributors of heating fuels, including conventional and biodiesel-blended heating oil. Our mostly small, multigenerational family businesses deliver safe and reliable heating fuels to approximately five million American homes annually. In addition to home heating oil, many member companies also supply and transport kerosene, diesel fuel, propane, and biofuels in cargo tank transport trucks to both residential and commercial accounts. All of these products are categorized as flammable or combustible under the Hazardous Materials Regulations.

NEFI joined with the National Propane Gas Association (NPGA) in a letter dated November 25, 2024, to PHMSA seeking guidance regarding the safe operation of hazardous materials tanks, including MC-331 tanks, on electric vehicles. The letter noted that States such as California, Washington, and Massachusetts were requiring operators of Class 7 and 8 trucks carrying hazardous materials to adopt and use EV technology in their respective states as early as January 1, 2025, and guidance on safe construction and operation of these vehicles was and remains lacking. This docket resulted from that request for guidance.<sup>1</sup>

On June 12, 2025, President Trump signed congressional resolutions of disapproval rescinding EPA waivers that allowed the California Air Resources Board to impose vehicle emission standards stricter than federal requirements.

The rescinded waivers prevent California and ten other states from enforcing the Advanced Clean Trucks (ACT) rule, which would have required truck manufacturers to sell zero-emission vehicles as an increasing percentage of annual sales from 2024 to 2035. The waivers also enabled states to adopt strict NOx

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<sup>1</sup> NEFI adopts and supports the comments submitted to this docket by NPGA.

emission rules for heavy trucks and effectively ban gas-powered car sales by 2035. The waiver rescission has now been challenged in court by a number of States and environmental groups. *State of California, et al. v. United States, et al.* (United States District Court, Northern District of California, Case No. 4:25-cv-04966).

The true objective of the ACT and Omnibus NOx rules and various other tax incentives and grant programs is to discourage the use of ICE vehicles and promote, if not mandate, electrification of the entire U.S. commercial motor vehicle fleet on a very aggressive timeframe. In the state regulators' zeal to address environmental concerns, however, all of these actions were taken without any consideration of the real-world safety implications for transportation of hazardous materials in EVs, and without proper consultation with PHMSA, the federal agency with primary responsibility for hazmat transportation safety.

PHMSA's notice said the agency aims to understand what impact the transition from ICE to EV motor carriers may have on hazmat packaging integrity, transportation safety, emergency response protocols, regulatory compliance, and overall vehicle risk. PHMSA indicated it may use the information gathered to develop a statement of work for further research into the safety of transporting hazardous materials in EVs.

As stated in the joint NPGA/NEFI letter to PHMSA, placing a MC-331 tank on an EV could result in a catastrophic cascading fire or thermal runaway, resulting in BLEVE or impinging the tank. In an internal combustion engine vehicle fire, expedited response and eliminating the fire aims to protect the tank and prevent a catastrophic incident involving hazardous materials. However, the fire response protocol for an EV differs from that of an ICE, in that the current emergency response protocol typically is to let the fire burn itself out. Couple this protocol with a hazardous material tank, the risk of a BLEVE or impingement is unacceptably high and presents an unreasonable risk to the public and the operator.

The current HMR require safety training of hazmat employees, 49 CFR § 172.204(a)(3)(i), to include emergency response information required by subpart G of 49 CFR part 172. There is nothing in that subpart, however, that instructs employees how to recognize, mitigate and handle a fire resulting from an EV battery when there are hazardous materials on board the vehicle.

According to the U.S. Fire Administration,<sup>2</sup> the energy density of the batteries used in EVs can make them extremely volatile when the process of thermal runaway begins. Thermal runaway is rapid uncontrolled release of heat energy from a battery cell that creates more heat than it can effectively dissipate. Thermal runaway in a single cell can result in a chain reaction that heats up neighboring cells and can result in battery fire or explosion. Popping noises or white smoke (toxic and flammable) are common indicators of impending thermal runaway. *Id.* at 10.

Moreover, the U.S. Fire Administration noted:

Recent incidents suggest that EVs involved in crashes or fires can experience delayed thermal runaway during removal and transport, disposal and/or salvage processes. Fires have occurred several days after the first apparent extinguishment, when damaged EVs were located in impound lots or salvage yards. Reignition while being transported is also possible. Damaged battery packs and EV components should only be handled by qualified hazardous materials team members or recovery firms, with proper disposal a must. Even with all proper precautions, however, damaged EVs can still experience "rekindle" incidents. *Id.* at 11.

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<sup>2</sup> *Electric Vehicle Fire/Rescue Response Operations*, U.S. Fire Administration, Federal Emergency Management Agency, Department of Homeland Security, July 2025.

The current hazmat training regulations do not prepare a hazmat employee to manage an incident involving a thermal runaway from an EV fire or any potential rekindle incident up to several days later. The lack of adequate training is exacerbated when there are flammable or combustible hazardous materials on the vehicle.

Further, training for emergency responders does not adequately address recognizing, mitigating and extinguishing incidents involving a thermal runaway from an EV fire or any potential rekindle incident. See, e.g., U.S. Fire Administration at 14: “At present, there is no generally accepted method for extinguishing EV fires. Guidance in OEM ERGs varies widely, and the specific ERG for a given vehicle should be consulted, if possible, during fire-rescue operations. From a review of the available literature, however, plain water appears to be the best available extinguishing agent for EV fires. Compared to an ICE vehicle fire, EV fires will likely require much larger quantities of water, delivered at higher flow rates over a longer period of time.”

The U.S. Fire Administration also noted the variance in recommended emergency response based on the type of EV involved in a fire:

Some OEMs’ ERGs recommend total immersion of EVs that are on fire, and this practice has also been adopted internationally. Other OEMs, however, do not recommend immersing their EVs or battery packs when they are on fire. Similarly, some OEMs recommend direct water application on their EVs’ battery packs, while others strongly recommend against any tactics that might (further) damage the battery packs or individual cells. Products that are on the market to pierce or puncture battery packs — allowing water application inside the pack — should be used with extreme caution and only with direct guidance from the specific vehicle manufacturer. Again, it should be noted that there is no universally accepted, evidence-based general guidance for EV firefighting available at present. Fire departments facing EV fires should consult the specific vehicle manufacturer’s ERG and/or technical support hotline for assistance.

Fire fighters and other emergency responders require more accurate and comprehensive information and training when dealing with an EV fire involving a flammable or combustible hazmat.

Additionally, there is a complete lack of understanding of how cargo tank trucks carrying flammables or combustibles will react to an EV fire. As set out in the NPGA comments herein, at 2, “Propane and LPG are carried on MC-331 cargo tanks, which have been tested for decades on ICE vehicles. No MC-331 tanks have been tested on EVs by state or federal authorities.” Likewise, home heating oil, diesel, kerosene and similar fuels are carried on MC-306 non-pressurized cargo tanks. They also have been tested for decades on ICE vehicles but have not been tested on EVs by state or federal authorities.

As a result, emergency responders have no information on whether the “total immersion” response to an EV fire is appropriate for tanks containing flammable or combustible products.

At the very least, PHMSA should begin research to determine the adequacy of allowing an EV fire to “burn out” when flammable or combustible products are involved, or whether some other method to extinguish the fire is necessary.


The agency should also determine whether the extreme heat generated by an EV fire will cause a rupture of pressurized or non-pressurized cargo tanks carrying such products, and how that additional risk might be addressed.

In addition, PHMSA should review its training requirements for hazmat employees and emergency response personnel to address the heightened risks imposed by hazmat in EVs, particularly flammables and combustibles.

At present, we do not know of a single NEFI member company or other transporter of flammables or combustibles that has begun purchasing or operating EVs for this purpose, and the federal regulatory landscape for heavy-duty vehicle electrification is in flux pending resolution of the litigation over the waiver rescission. PHMSA accordingly has a window to conduct appropriate research and develop guidance before commercial deployment of EVs in this segment accelerates. Should demand for EVs among fuel distributors grow, whether driven by state mandates, OEM product offerings, or future federal action, these issues will grow in importance commensurately.

Thank you for your consideration. We look forward to working with the agency on this issue.

Respectfully submitted,

  
James M. Collura  
President and CEO