



Commercial Vehicle Safety Alliance

Improving commercial motor vehicle safety and enforcement

Universal Electronic Vehicle Identifier

CVSA supports requiring that all new commercial motor vehicles be equipped with a universal electronic vehicle identifier that allows them to be identified at a short range electronically by enforcement.

Approximately 4 million commercial motor vehicle inspections are conducted every year throughout North America to ensure commercial motor vehicles driving on our roadways are operating safely. Given the size of the motor carrier industry, it is not possible for the roughly 13,000 inspectors across North America to inspect every vehicle, driver and motor carrier operating on our roadways on a regular basis. Currently, inspectors use screening technology programs and tools, as well as inspection selection procedures and inspector observation, to determine which vehicles to select for a roadside inspection.

Currently, when an inspector is observing commercial motor vehicles available for inspection, that inspector can only view information for a single truck at a time when using various screening technologies and tools. Additionally, inspectors have to manually review the information when they query the screening technology programs. Inspectors have a limited window in which to view the information and make the inspection selection decision. Under current inspection selection procedures, inspectors are not receiving a complete picture of the commercial motor vehicles in their vicinity that are available for inspection.

A universal electronic vehicle identifier would revolutionize the way CMV roadside selections, inspections and enforcement are conducted, would leverage limited resources, and improve roadway safety. Electronic identification of commercial motor vehicles will allow inspectors to better identify and prioritize vehicles with safety concerns, removing unsafe vehicles and drivers from the nation's roadways.

Electronic identification technologies exist today that allows an inspector to identify a vehicle while it is in motion. Universal deployment of electronic identification technologies would allow electronic roadside identification of nearly all commercial motor vehicles, which would better equip enforcement to identify unsafe motor carriers and vehicles. Using electronic identification technologies reduces the need to stop a commercial motor vehicle to gain information about the motor carrier and vehicle, allowing enforcement to increase the number of vehicles that are considered for inspection while using data to better select vehicles for intervention, creating efficiencies for the enforcement community and the motor carrier industry.

Utilizing a universal electronic vehicle identifier can provide enforcement with additional information as part of the inspection selection process. For example, a system that uses the universal electronic vehicle identifier could flag vehicles that are operating under a federal or state out-of-service order. These are vehicles that should not be operating yet are on the road placing other road users at risk. By having this information, enforcement can focus in on these vehicles when selecting a vehicle for inspection.

To illustrate the impact of a universal electronic vehicle identifier, during a three-day enforcement blitz in May 2024, 48,761 inspections were conducted in North America. Of those vehicles inspected, 23% were identified as having safety violations critical enough that they were placed out of service and not permitted to operate without fixing

the violation. The deployment of a universal electronic vehicle identifier would improve the effectiveness of enforcement programs while reducing costs, for both enforcement and industry, which in turn will allow enforcement to better identify and prioritize vehicles, like those identified in the enforcement blitz, who are operating unsafely.

In order to move forward with deployment while maximizing impact, the electronic identifier must be a universal requirement. If implementing the universal electronic vehicle identifier were optional, motor carriers who would rather go unnoticed by enforcement would choose not to implement it, and these motor carriers may be the ones who frequently operate unsafely. By seeing a complete picture of the vehicles in their vicinity, inspectors will be able to better identify and prioritize vehicles that are operating unsafely.

There are additional applications for how a universal electronic vehicle identifier addition can aid enforcement beyond the inspection selection process. For example, a universal electronic vehicle identifier can support enforcement in identifying instances of motor carrier fraud and USDOT number theft. Currently, enforcement does not have a mechanism to identify and prove USDOT number theft roadside. In instances where USDOT number theft is suspected, enforcement can rely on the electronic vehicle identifier, in addition to a motor carrier's registration information, to demonstrate if the vehicle being driven is associated with the USDOT number.

There are various technologies that can be utilized as an electronic vehicle identifier. One solution could be relying on radio frequency identification (RFID) technology to communicate the electronic vehicle identifier to the inspector. Another solution could be employing connected vehicle technology to share the electronic vehicle identifier with the inspector. These solutions are at varying stages of feasibility and affordability but offer possible technological solutions for implementing a universal electronic vehicle identifier. Implementation can be accomplished with minimal cost and disruption, and the safety and economic benefits will be substantial for the enforcement community, motor carrier industry and driving public.

Establishing a universal vehicle identifier requirement creates no additional regulatory burden for the motor carrier because the technology would be equipped at the time of manufacturing. Furthermore, for the regulated motor carrier industry, there are no credible privacy concerns. No sensitive information, such as driver information and data, would be transmitted, and the vehicle would share only the universal vehicle identifier. The universal vehicle identifier, potentially tied to the vehicle identification number, would then be used by enforcement to access information that is already required to be displayed or made available to enforcement by existing regulation. This requirement would create a new and more efficient pathway for enforcement to access information they are already provided.

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