

National Highway Traffic Safety Administration 1200 New Jersey Avenue, SE Washington, DC 20590

November 15, 2019

The Honorable Robert L. Sumwalt, III Chairman National Transportation Safety Board 490 L'Enfant Plaza East, SW Washington, DC 20594

Dear Chairman Sumwalt:

This letter is in response to your July 16, 2019, letter issuing two new recommendations H-19-4 and H-19-5 and reiterating recommendation H-15-12 following the investigation of the December 12, 2017, school bus fire in Oakland, Iowa.

Below are the National Highway Traffic Safety Administration's (NHTSA) current actions and requested classifications for each recommendation.

National Transportation Safety Board Recommendations and Requested Designations:

H-19-4: Require all new school buses to be equipped with fire suppression systems that at a minimum address engine fires.

NHTSA Response:

NHTSA requests that safety recommendation H-19-4 be classified as "Closed-Acceptable Alternate Action" for the following reasons:

NHTSA disagrees with recommendation H-19-4. As a matter of practicability and effectiveness, the safety benefits of requiring engine fire suppression on new school buses are not justified by the costs and indeed, may result in a lessening of safety for pupil transport. In the past 25 years, NHTSA is aware of two school bus fatalities attributable to one fire (this 2017 event in Oakland, Iowa). In the event of other prior fires, school bus occupants have been able to timely egress the vehicle. The Oakland school bus fire was a tragedy. It was also a unique case where the occupants did not egress the vehicle even though there was access to operable exits.

Students are about 70 times more likely to get to school safely when taking a school bus instead of a car. Increases in the costs of school buses (including maintenance) may reduce their use by school districts. On average, an engine fire suppression system for a school bus can cost about \$3,000. In recent years, about 45,000 school buses are sold annually. The cost of requiring engine fire suppression systems on all new school buses may be \$135 million annually. Additionally, for fire suppression systems to work effectively, they require routine maintenance that would add to the bus maintenance cost.

A Federal requirement for fire suppression systems on school buses could indirectly increase fatalities and injuries in school transportation. The additional cost of a fire suppression system could result in a reduction of new school buses purchased by local school districts. This would result in increased service life of older, less safe school buses and potentially in reduced school bus service, and an increased risk to students needing to find alternative, less safe means of school transportation.

H-19-5: Develop standards for newly manufactured school buses, especially those with engines that extend beyond the firewall, to ensure that no hazardous quantity of gas or flame can pass through the firewall from the engine compartment to the passenger compartment.

NHTSA Response:

NHTSA requests that safety recommendation H-19-5 be classified as **"Open-Acceptable Response"** for the following reasons:

Currently, there are no Federal requirements for a firewall that offers protection to vehicle occupants in the event of an engine fire. NHTSA plans to initiate research in 2020 on the effectiveness, feasibility, and practicability of requirements for firewall performance. This research will evaluate firewall requirements for different types of buses including school buses.

H-15-12 (reiterated recommendation): Revise Federal Motor Vehicle Safety Standard 302 to adopt the more rigorous performance standards for interior flammability and smoke emissions characteristics already in use throughout the U.S. Department of Transportation for commercial aviation and rail passenger transportation.

NHTSA Response:

NHTSA requests that safety recommendation H-15-12 be classified as **"Open-Acceptable Action"** for the following reasons:

As noted in the National Transportation Safety Board accident report of the Oakland, Iowa school bus fire incident, NHTSA's research at Southwest Research Institute (SwRI) to develop test procedures for evaluating the flammability of materials in vehicles is ongoing. SwRI identified the microscale combustion calorimeter as a candidate test procedure and is currently developing appropriate performance criteria associated with the test. In 2018, NHTSA extended the contract to evaluate smoke toxicity of automotive interior materials and to evaluate the chemical composition of the materials. The research effort at SwRI will be completed in June of 2020. NHTSA will plan next steps after a comprehensive review of the results of this research.

If you have any questions, or require additional information, please contact me or Sara Peters, Deputy Director, Governmental Affairs, Policy and Strategic Planning at 202-366-8849.

Sincerely yours James C. Owens Acting Administrator