

**AIR QUALITY AND CLIMATE DIVISION  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

To: House Committee on Transportation

From: Deirdra Ritzer, Mobile Sources Section Chief, Air Quality and Climate Division  
Rachel Stevens, Associate General Counsel, DEC

Date: April 22, 2026

Re: Vermont's Inspection and Maintenance Program and emissions inspections

---

### **Background on Legal Requirements for Emissions Inspections**

**Why inspections?** Motor vehicle inspection and maintenance (I/M) programs are an integral part of maintaining Vermont's air quality because motor vehicles are the largest source of air pollution. Today's cars and trucks depend on properly functioning emission controls to keep pollution levels low. Even minor malfunctions in the emission control system can increase emissions significantly. For example, if a vehicle's check engine light is illuminated, this means that the manufacturer has determined the vehicle emissions may be increased by 50% or more due to an emissions control system or part failure. Effective I/M programs can identify these problem vehicles and ensure their repair.

**Federal requirements.** The federal Clean Air Act, 42 U.S.C. § 7511c, specifically requires Vermont to follow the "enhanced vehicle inspection and maintenance" requirements described in 40 C.F.R. Part 51, Subpart S. These implementing regulations of the U.S. Environmental Protection Agency (EPA) set forth inspection criteria; program scope; enforcement against motorists, contractors, and inspection stations for noncompliance; data collection, analysis, and reporting; inspector training and certification; and other requirements.

**Test Frequency.** The federal regulations assume an annual emissions test frequency unless a required emissions performance standard is met. 40 C.F.R. §51.351. To change Vermont's annual inspection requirement to every other year, the Agency of Natural Resources would need to conduct extensive technical modeling to determine whether this performance standard can be met. If this standard cannot be met with a biennial frequency, then the inspection frequency must remain annual. Alternatively, other changes to the inspection program could be made to offset the emissions reductions lost by moving to biennial frequency, such as increasing the vehicle model years subject to the emissions inspection. If the performance standard can be met, then the Agency will need to amend its State Implementation Plan (SIP) and seek approval from EPA. A SIP is a document that provides emissions limitations and other control measures as may be necessary to meet the federal Clean Air Act's air quality standards. Once approved by EPA, a SIP is federally enforceable.

**Relevant case.** Importantly, a state law to change emissions inspection requirements cannot supersede the federal Clean Air Act requirements or SIP process. On January 27, 2026, a federal district court judge confirmed this federal process and [issued a preliminary injunction ordering](#) New Hampshire state officials to stop taking any action to terminate, suspend, or cease implementation or enforcement of NH's vehicle inspection and maintenance program, as codified in their SIP, unless the EPA grants final approval of a revised SIP that modifies the program. Without an approved SIP revision, implementation of NH's state law to end vehicle inspections violated the Clean Air Act. This federal court case is relevant because the court order confirms that the Clean Air Act requires EPA to approve any modifications to state emissions inspection programs through the SIP process.

## Emissions inspections lead to vehicle maintenance and repairs.

Vermont inspection data suggests that emissions inspections drive vehicle maintenance and play a meaningful role in improving compliance, getting vehicles repaired, and achieving air quality benefits.

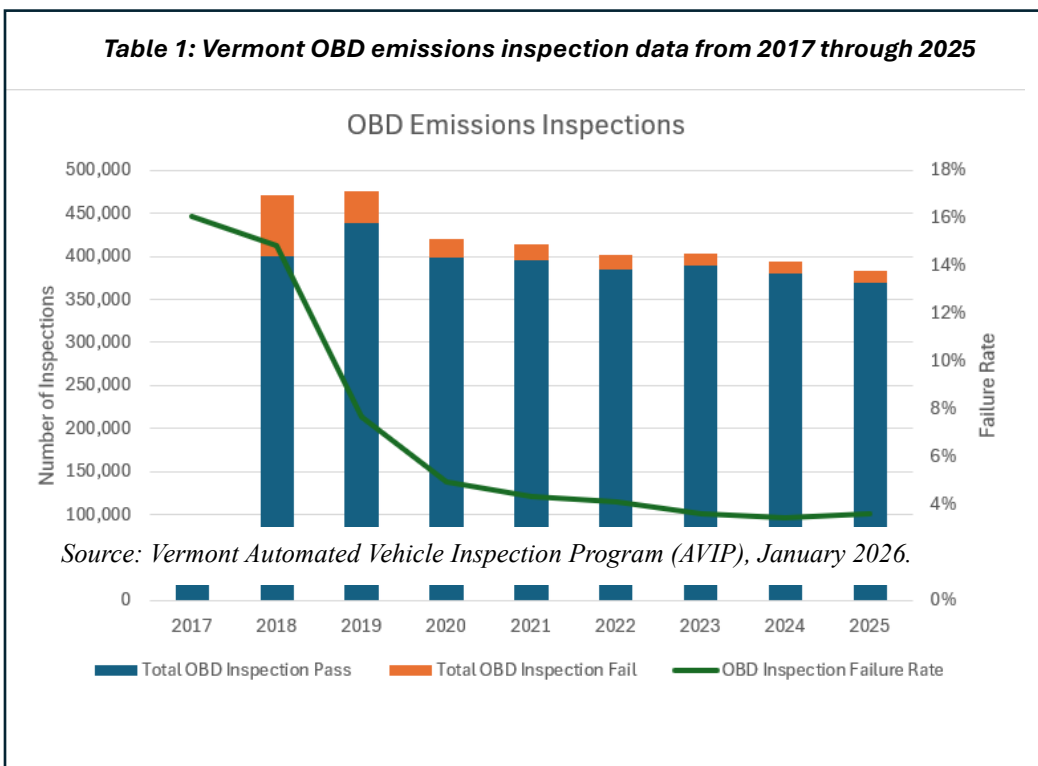
Prior to 2017, vehicle inspections in Vermont were documented using paper records, which made the program difficult to enforce. In 2017, the state transitioned to an electronic data collection and management system, which significantly improved the accuracy and enforceability of emissions inspection results. The new system largely removed the human element from emissions testing by requiring technicians to electronically connect inspection equipment directly to the vehicle, with pass-fail determinations generated automatically by the system.

As shown in Table 1, below, when the electronic program was implemented, the emissions inspection failure rate was 16%. In the years that followed, the failure rate declined substantially (4% today), reflecting increased compliance as vehicle owners recognized the accuracy of the electronic testing process and addressed emissions related repairs prior to inspection.

The purpose of the malfunction indicator lamp (MIL), commonly known as the check engine light, is to notify drivers that an emissions-related repair is necessary. According to the U.S. Environmental Protection Agency (EPA), "...many motorists, when seeing the OBD 'Check Engine' light is on, will elect to repair their vehicle prior to their required inspection."

EPA also noted that in 2018, 3.5 million vehicles initially failed their emissions inspection and because of state inspection programs, more than 75% of those vehicles that failed were repaired, reducing emissions.<sup>1</sup>

During a 2023 national conference on vehicle inspection and maintenance programs, experts at the Oregon Department of Environmental Quality (DEQ) presented an analysis of their 2022 OBD emissions inspection and maintenance (I/M) data. According to the DEQ, "every year, about 25% of all vehicles tested have had a repair event within 90 days of their test date."<sup>2</sup> Additionally, Oregon's report submitted to EPA in 2025 specifically states that their inspection data "suggests the testing program is an important incentive to Oregon vehicle



<sup>1</sup> U.S. Environmental Protection Agency. *Overview of Vehicle Inspection and Maintenance (I/M) Programs*. October 2021. <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=P1013CC0.pdf>.

<sup>2</sup> Oregon Department of Environmental Quality, June 2023, *Oregon Vehicle Test Data – 2022*. PowerPoint Slides. Document on file with DEC.

owners to maintain vehicles properly and seek repairs within their registration window.”<sup>3</sup> This shows that vehicles owners are repairing their vehicles as their inspection draws closer and demonstrates that emissions inspections are driving motorist repair behavior.

Additionally, the Oregon DEQ conducted emissions testing on vehicles located outside inspection areas, where there are no inspection requirements, and discovered a failure rate of 16.5%. This rate is nearly 7 times higher than the 2.5% failure rate observed within inspection areas. Oregon DEQ concluded that “I/M clearly makes a difference in the maintenance habits of motorists.”<sup>4</sup>

At a national conference on vehicle inspection and maintenance programs in 2025, OPUS (business in the vehicle inspection and intelligent vehicle support markets) presented on Remote Sensing Device (RSD) programs.<sup>5</sup> RSD provides a snapshot of emissions from vehicles as they are driven on roadways. RSD units collect various data and analyze the emissions as a vehicle drives past. Specifically, analysis of RSD data collected in Colorado’s inspection program demonstrates pre-inspection repairs being made as the vehicle inspection due date draws near. RSD measurements capturing vehicles before and after their inspections show that emissions repairs made near the time of inspection resulted in:

- A decrease in carbon monoxide emissions of 4%
- A decrease in hydrocarbon emissions of 27%
- A decrease in nitric oxide emissions of 30%

A Carnegie Mellon University study from 2015 on vehicle inspections concluded that inspections should continue and stresses the importance of data sources, noting that “accurate inspection data is limited and often incorrectly analyzed.”<sup>6</sup> The data and information cited above are from experts in the field of motor vehicle emissions inspections, scientists and engineers.

---

<sup>3</sup> Oregon Department of Environmental Quality Vehicle Inspection Program, July 2025, *U.S. Environmental Protection Agency Report 2024 Test Year*. Page 39. <https://www.oregon.gov/deq/Vehicle-Inspection/Documents/vipepareport2024.pdf#page=39>.

<sup>4</sup> Oregon Department of Environmental Quality Vehicle Inspection Program, June 2023, *Oregon Vehicle Test Data – 2022*. PowerPoint Slides. Document on file with DEC.

<sup>5</sup> OPUS, May 20, 2025. *I/M Program Effectiveness*. PowerPoint Slides. Document on file with DEC.

<sup>6</sup> Dana Peck, H. Scott Matthews, Paul Fischbeck, Chris T. Hendrickson. “Failure rates and data driven policies for vehicle safety inspections in Pennsylvania,” *Transportation Research Part A*, Volume 78, pages 252-265. (2015). <https://www.sciencedirect.com/science/article/abs/pii/S096585641500141X>