



DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

[Docket No. NHTSA-2026-0629]

RIN 2127-AM71

Federal Motor Vehicle Safety Standards;

Modernization of FMVSS No. 103 and FMVSS No. 104 to Accommodate ADS-Equipped Vehicles. Incorporation by Reference.

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Notice of proposed rulemaking.

SUMMARY: NHTSA is proposing to amend Federal Motor Vehicle Safety Standards (FMVSS) No. 103, “Windshield defrosting and defogging systems,” and FMVSS No. 104, “Windshield wiping and washing systems.” The proposed modifications would except vehicles equipped with Automated Driving Systems (ADS) that do not have manually operated driving controls from these standards. This rulemaking would remove unnecessary regulatory burdens and costs associated with systems intended to provide visibility for a person driving the vehicle. As these systems do not fulfill the same safety need on an ADS-equipped vehicle without manually operated driving controls, the proposed changes are not expected to have adverse safety effects. Manufacturers may still provide these systems if they choose to do so. These actions are part of a larger NHTSA effort to address vehicle automation in the agency’s regulations. This proposal would also harmonize FMVSS Nos. 103 and 104 with current industry standards through incorporations by reference.

DATES: Comments should be submitted no later than **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

Proposed Effective Date: Vehicles manufactured 180 days after the publication date of the final rule.

ADDRESSES: You may submit comments identified by the docket number in the heading of this document or by any of the following methods:

- *Federal eRulemaking Portal:* Go to www.regulations.gov. Follow the instructions for submitting comments on the electronic docket site by clicking on “Help” or “FAQ.”
- *Mail or Hand Delivery:* Docket Management Facility. U.S. Department of Transportation. 1200 New Jersey Avenue S.E., West Building, Suite W58-213, Washington, D.C. 20590 between 9 a.m. and 5 p.m. Eastern Time, Monday through Friday, except Federal Holidays. To be sure someone is there to help you, please call (202) 366-9826 or (202) 366-9317 before coming.
- *Fax:* 202-493-2251.

Instructions: All submissions must include the agency name and docket number or Regulatory Information Number (RIN) for this rulemaking. Note that all comments received will be posted without change to www.regulations.gov, including any personal information provided. Please see the Privacy Act discussion below. We will consider all comments received before the close of business on the comment closing date indicated above. To the extent possible, we will also consider comments filed after the closing date.

Docket: For access to the docket to read background documents or comments received, go to www.regulations.gov at any time or to 1200 New Jersey Avenue S.E., West Building Ground Floor, Room W12-140, Washington, D.C. 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal Holidays. Telephone: 202-366-9826.

Confidential Business Information: If you claim that any of the information in your comment (including any additional documents or attachments) constitutes confidential business information within the meaning of 5 U.S.C. 552(b)(4) or is protected from disclosure pursuant to

18 U.S.C. 1905, please see the detailed instructions given under the Public Participation heading of the SUPPLEMENTARY INFORMATION section of this document.

Privacy Act: In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to inform its decision-making process. DOT posts these comments, without edit, including any personal information the commenter provides, to www.regulations.gov, as described in the system of records notice (DOT/ALL-14 FDMS), which can be reviewed at www.transportation.gov/privacy. To facilitate comment tracking and response, we encourage commenters to provide their name, or the name of their organization; however, submission of names is completely optional. Regardless of whether commenters identify themselves, all timely comments will be considered fully.

FOR FURTHER INFORMATION CONTACT: For technical issues, you may contact Ms. Lina Valivullah, Office of Automation Safety; Telephone: 202-366-1810; Email: Lina.Valivullah@dot.gov; Facsimile: 202-493-2739. For legal issues, you may contact Mr. David Jasinski, NHTSA Office of the Chief Counsel, Email: David.Jasinski@dot.gov. The mailing address of these officials is: National Highway Traffic Safety Administration, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590.

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I. Executive Summary

This rulemaking focuses on vehicles equipped with Automated Driving Systems (ADS) that do not have manually operated driving controls. These vehicles currently are not available for consumer purchase; however, there is considerable investment into the safe testing, development, and validation of these vehicles, as well as localized deployment by manufacturers and rideshare operators. Vehicle automation technology has the potential to reduce roadway crashes and fatalities while increasing mobility. As the technology is still maturing, and many of the potential benefits are yet to be realized, NHTSA is engaging in a process to remove unnecessary barriers to technological innovation while ensuring motor vehicle safety is not compromised.

NHTSA seeks to address the application of certain existing crash avoidance standards to ADS-equipped vehicles without manually operated driving controls. In this document, NHTSA proposes to amend Federal Motor Vehicle Safety Standard (FMVSS) No. 103, “Windshield defrosting and defogging systems,” and FMVSS No. 104, “Windshield wiping and washing systems.” The proposed modifications would except vehicles without manually operated driving controls from these standards. This rulemaking would remove the regulatory burdens and costs of systems unnecessary for an ADS-equipped vehicle without manually operated driving controls with no negative impact to vehicle safety. These actions are part of a larger NHTSA effort to address vehicle automation in the agency’s regulations.

This notice further proposes to harmonize FMVSS Nos. 103 and 104 with current industry standards through updated incorporations by reference. These proposed updates are

unrelated to the proposed exceptions for ADS-equipped vehicles without manually operated driving controls. If all proposed changes to FMVSS Nos. 103 and 104 in this NPRM are finalized, updated requirements will apply to passenger cars, multipurpose passenger vehicles, trucks, and buses. However, vehicles without manually operated driving controls will be excepted from the standards.

II. Background

This proposed rule addresses ADS-equipped vehicles that do not have manually operated driving controls. An ADS commonly is considered to be a combination of hardware and software that can perform all real-time operational and tactical functions required to operate a vehicle on a sustained basis.¹ These functions traditionally are performed by a person using manually operated driving controls. As defined in 49 CFR 571.3 and used throughout this document, *manually operated driving controls* means a system of controls: (i) used by an occupant for real-time, sustained, manual manipulation of the motor vehicle's heading (steering) and/or speed (accelerator and brake); and (ii) positioned such that they can be used by an occupant, regardless of whether the occupant is actively using the system to manipulate the vehicle's motion. In an ADS-equipped vehicle designed to be operated only by an ADS, manually operated driving controls may not be necessary.

NHTSA has published prior *Federal Register* notices requesting comment, proposing changes, and updating existing regulations to address vehicle automation. These notices include a Request for Comment (RFC), "Removing Regulatory Barriers for Vehicles with Automated Driving Systems," published on February 13, 2018,² and a subsequent Advance Notice of Proposed Rulemaking (ANPRM) with the same title published on May 28, 2019.³ The RFC posed questions about identifying and addressing regulatory barriers for vehicles that lack

¹ See, e.g., SAE, Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles, J3016_202104 (April 30, 2021), *available at* https://www.sae.org/standards/content/j3016_202104/; Tex. Transp. Code § 545.451.

² 83 FR 6148.

³ 84 FR 24433.

traditional manual controls or have unconventional seating. The ANPRM focused on the challenges of testing and verifying compliance for vehicles without traditional manual controls. A separate NPRM, “Occupant Protection for Automated Driving Systems,”⁴ was published in 2020, with the corresponding Final Rule, “Occupant Protection for Vehicles with Automated Driving Systems,” published on March 30, 2022.⁵ The rulemaking focused on crashworthiness standards for ADS-equipped vehicles without manual driving controls, revising definitions and updating occupant protection standards to exclude vehicles specifically designed not to contain any occupants. The 2022 Final Rule also established the definition in 49 CFR 571.3 for *manually operated driving controls*. On December 3, 2020, NHTSA published an ANPRM titled, “Framework for Automated Driving Systems,” to discuss and request comment on the manner in which the agency would define, assess, and manage objectively the safety of ADS performance while ensuring the needed flexibility to enable further innovation.⁶ The ANPRM included recognition of a phased approach to addressing ADS safety, including NHTSA’s modernization of the FMVSS for ADS-equipped vehicles without traditional manual driving controls.

NHTSA proposes exceptions to existing requirements for ADS-equipped vehicles that do not contain manually operated driving controls and therefore cannot be driven by a person in the vehicle. ADS-equipped vehicles without manually operated driving controls currently face regulatory barriers presented by requirements related to manual controls unnecessary for operation of the vehicle by the ADS. While vehicles not intended to be driven manually may not have manually operated driving controls, others may have manually operated driving controls if converted from a conventional vehicle or if equipped with controls for specialized use. NHTSA maintains that any vehicle equipped with manually operated driving controls must continue to meet all existing safety requirements, regardless of whether the vehicle is equipped with an ADS.

⁴ 85 FR 17624.

⁵ 87 FR 18560.

⁶ 85 FR 78058.

III. Proposed Changes

A. Excepting ADS-equipped Vehicles Without Manually Operated Driving Controls from FMVSS Nos. 103 and 104

Background

FMVSS No. 103, “Windshield defrosting and defogging systems,” was established to specify requirements for providing the driver visibility through the vehicle windshield during frosting and fogging conditions.⁷ It requires that passenger cars, multipurpose passenger vehicles, trucks, and buses each have a windshield defrosting and defogging system. FMVSS No. 104, “Windshield wiping and washing systems,” specifies requirements for windshield wiping and washing systems for the same purpose of providing the driver visibility through the vehicle windshield. It requires vehicles to have a power-driven windshield wiping system that clears portions of the windshield at regular intervals.

Proposal

These standards contain requirements to ensure driver forward visibility in a variety of operating conditions. FMVSS Nos. 103 and 104 are both premised on the assumption that a person needs an unobstructed view through the windshield to safely operate the vehicle and were designed to meet this safety need. NHTSA is proposing to amend FMVSS Nos. 103 and 104 to address the application of the standards to ADS-equipped vehicles without manually operated driving controls. Specifically, language would be added to the application section in each standard to except vehicles without manually operated driving controls from the standard. The standards would still apply to vehicles with manually operated driving controls, regardless of the presence of an ADS.

Excepting ADS-equipped vehicles without manually operated driving controls from FMVSS Nos. 103 and 104 is not expected to have substantive adverse safety effects, as the standards are intended to provide visibility for a person driving the vehicle. Without an explicit

⁷ 32 FR 2408

safety need, NHTSA tentatively finds it impracticable to subject ADS-equipped vehicles without manually operated driving controls to these standards. Manufacturers may still find it appropriate to install windshield defrosting, defogging, wiping, and washing systems for reasons such as passenger visibility, awareness, comfort, and convenience, though there would be no obligation for the systems to meet the FMVSS performance requirements. Manufacturers may also elect to utilize alternative windshield clearing systems or alternative means of providing exterior visibility or information about the outside world to occupants (e.g., utilizing cameras already installed on the vehicle to provide visibility through screens). NHTSA anticipates that this proposal could lead to reduced regulatory costs from reduced components and labor.

While the proposal would relieve certain vehicles from meeting the requirements of FMVSS Nos. 103 and 104, manufacturers of ADS equipment and ADS-equipped vehicles would still be responsible for ensuring that ADS-equipped vehicles are free of unreasonable safety risks. An ADS incorporates sensors to monitor the vehicle surroundings. Failure to monitor ADS sensor performance and to clear sensor obstructions to maintain functionality could constitute a vehicle safety defect. Similarly, a manufacturer would be expected to provide a means for safe occupant egress, through visibility to the outside world or other means (e.g., utilizing sensors on the vehicle to identify and warn departing occupants of hazards). NHTSA requests comment regarding unintended safety implications not addressed in the proposal.

B. Updating and Harmonizing FMVSS Nos. 103 and 104 Test Procedures

1. FMVSS No. 103

Background

FMVSS No. 103 specifies performance requirements and test procedures for passenger car windshield defrosting and defogging systems, incorporating by reference SAE Recommended Practices J902 (1964) and J902a (1967), “Passenger Car Windshield Defrosting Systems.” The FMVSS allows use of the test procedure in either J902 (1964) or J902a (1967), as the differences are minor and the FMVSS specifies additional parameters and modifications to

the SAE test procedures. FMVSS No. 103 also uses areas of the windshield defined in FMVSS No. 104, “Windshield Wiping and Washing Systems,” for the windshield clearing requirements, rather than the areas specified by the SAE Recommended Practices.

The SAE Recommended Practice J902 (2025), “Passenger Vehicle Windshield Demisting and Defrosting Systems,” has been updated to clarify the requirements, address different vehicle propulsion systems, and include the additional specifications of FMVSS No. 103. The primary differences between the specifications currently incorporated by reference and those of the 2025 SAE Recommended Practice are the temperature range, the minimum percent area to be defrosted, and the time intervals. The temperature range for the test changed from $[-18\text{ °C} \pm 3\text{ °C}]$ to $[-18\text{ °C} + 3\text{ °C}/-10\text{ °C}]$. The SAE-specified minimum percentages of the windshield to be defrosted were originally 80% of “the critical area” after 20 minutes and 95% of “the entire windshield” after 40 minutes. FMVSS No. 103 substitutes Area C for “the critical area” and Area A for “the entire windshield.” The current J902 (2025) uses the Area C and Area A as in FMVSS No. 103 and summarily updates percentage and time as follows: 100% of Area C and 80% of Area A shall be defrosted after 30 minutes.

Proposal

The current version of SAE J902 (2025) incorporates the additional test method specifications from FMVSS No. 103, sections S4.3 (a) through (h), noting where the requirements are specific to the FMVSS. NHTSA believes that vehicle manufacturers are already referencing the updated industry standard to ensure that their vehicles meet the requirements of FMVSS No. 103. Updating FMVSS No. 103 to incorporate by reference the current SAE J902 (2025) rather than the historic 1964 and 1967 versions will streamline and harmonize the standard with the industry best practices.

For these reasons, NHTSA proposes modifying the requirements in S4 of FMVSS No. 103 as follows. In S4.2, SAE Recommended Practice J902 (2025) would replace J902 (1964), and the windshield areas A and C would be those established in accordance with FMVSS No.

104. For the demonstration procedure in S4.3, SAE Recommended Practice J902 (2025) would replace J902 (1964) and J902a (1967). As the current SAE industry standard has incorporated the parameters of the existing FMVSS No. 103, the remainder of S4.3 would no longer be necessary and could be removed to simplify the standard without changing the requirements. NHTSA seeks comment on these proposed changes.

2. FMVSS No. 104

a. Definitions

Background

FMVSS No. 104 provides definitions for *daylight opening*, *glazing surface reference line*, *overall width*, *plan view reference line*, *shoulder room dimension*, and *95 percent eye range contour*. These definitions incorporate by reference section E, “Ground Vehicle Practice,” of SAE Aerospace-Automotive Drawing Standards (1963), SAE Recommended Practice J903a (1966), and SAE Recommended Practice J941 (1965).

Proposal

NHTSA believes it is appropriate to update FMVSS No. 104 by removing extraneous information and updating the matter incorporated by reference. While *glazing surface reference line*, *plan view reference line*, *shoulder room dimension*, and *95 percent eye range contour* are currently defined in FMVSS No. 104, these terms are not used within the standard, so NHTSA proposes to remove these unused definitions. NHTSA also intends to simplify the definitions of *daylight opening* and *overall width*.

Daylight opening is defined in FMVSS No. 104 as “the maximum unobstructed opening through the glazing surface, as defined in paragraph 2.3.12 of section E, “Ground Vehicle Practice,” of SAE Aerospace-Automotive Drawing Standards (1963).” In modernizing FMVSS No. 104, NHTSA proposes to remove this historical reference. NHTSA believes that it is unnecessary to provide an updated reference in this instance because the definition of *daylight opening* is in accordance with general use. NHTSA also proposes to simplify the definition of

overall width by stating that it means the same as *overall vehicle width*, which is already defined in §571.3; additional references and further definition are unnecessary.

b. Requirements

Background

FMVSS No. 104 incorporates by reference the test procedures from SAE Recommended Practice J903a (1966) for windshield wiper systems and SAE Recommended Practice J942 (1965) for windshield washer systems. For passenger vehicles, the FMVSS requirements state the percent area that must be cleared by the wipers within certain zones of the windshield when tested per the SAE procedures. These zones or areas of the windshield are defined within FMVSS No. 104, using the location of the driver's seat to infer the viewing angles of the driver. Specifically, referencing SAE Recommended Practice J903a (1966) in combination with the driver eye range contour specified in SAE Recommended Practice J941 (1965), FMVSS No. 104 establishes Areas A, B, and C of the vehicle windshield. Each area is defined using angles left, right, up, and down from the presumed location of the driver's eyes. Slightly greater angles are specified for larger vehicle widths. The standard states the minimum percent of each area (A, B, C) that must be wiped by the windshield wiping system when tested wet in accordance with SAE Recommended Practice J903a (1966). FMVSS No. 104 also requires vehicles to have a windshield washing system that meets the requirements of SAE Recommended Practice J942 (1965), with minor modifications.

Proposal

NHTSA proposes to modernize FMVSS No. 104 by updating which versions of industry standards are incorporated by reference. NHTSA is not proposing to change the wiping frequency requirements or wiped area tables specified in subsection S4.1 of FMVSS No. 104.

SAE Recommended Practice J903 (2024) is the most recent version of the industry standard for ground vehicle windshield wiper systems. The windshield wiping system test specifications in SAE Recommended Practice J903 (2024) are not significantly different from

those in the currently referenced SAE Recommended Practice J903a (1966). Within SAE J903 (2024), the 95th percentile tangent cutoff eyellipse of SAE Recommended Practice J941 (2010) is used for eye range. The eyellipse terminology and values in SAE Recommended Practice J941 (2010) are not identical to those in SAE J941 (1965). However, the industry standard was updated over time to better represent the driving population. NHTSA believes it is appropriate to use the most recent calculations. For these reasons, NHTSA proposes to replace the original SAE J903a (1966) incorporated by reference with the current SAE Recommended Practice J903 (2024).

For the windshield washing test, the procedure in SAE J942 has changed significantly. The original SAE J942 (1965) procedure involved applying a mixture of fine grade test dust and water (in a 1:2 ratio by volume) and evaluating the washer system within 15 seconds of application. The current SAE J942 (1999) specifies applying a mixture of 92.5% tap water, 5% saturated salt water, and 2.5% coarse grade test dust by volume and allowing it to dry completely before wiping. The specified windshield areas must be cleared within 5 wiper cycles, rather than the previous 10 cycles, and the minimum wash areas have changed. To modernize the FMVSS, NHTSA proposes to incorporate by reference SAE J942 (1999) in place of the 1965 version, and requests comment on the effects of this change. Comments providing supporting data, e.g. test data from both the historical and updated SAE windshield washing procedures for comparison.

IV. Request for Comment

NHTSA seeks public comment on the proposed changes to except vehicles without manually operated driver controls from the application of the standards and the revised test procedures it plans to incorporate by reference. The revised test procedures in the SAE Recommended Practices are believed to be in practice by manufacturers currently, and NHTSA has proposed an effective date 180 days after publication of any final rule; comments on the suitability of this effective date are requested.

V. Rulemaking Analyses and Notices

Executive Order (E.O.) 12866, E.O. 14192, and E.O. 14219

NHTSA has considered the impact of this rulemaking action under Executive Orders 12866, 14192, and 14219. This proposed rule does not meet the criteria of a “significant regulatory action” under Executive Order 12866. Therefore, the Office of Management and Budget (OMB) has not reviewed this proposed rule under those orders. This proposed rule, if finalized as proposed, is expected to be an E.O. 14192 deregulatory action because it removes an unnecessary regulatory burden. At this stage, the agency has not quantified any potential benefits or costs. For this rule, NHTSA does not anticipate any new regulatory costs, as it would remove unnecessary requirements without adding any new requirements. NHTSA does not anticipate any safety disbenefits since, as discussed above, the standards at issue here do not fulfill the same safety need for ADS-equipped vehicles without manually operated driving controls. The benefits to this rule would be reduced compliance costs. However, given the still-developing nature of this market, NHTSA cannot quantify the number of vehicles that may be affected by this proposed rule. Though NHTSA could seek to quantify compliance costs on a per-vehicle basis, any estimate based on traditional vehicle configurations may not be accurate, given the different design and nature of ADS-equipped vehicles without manually operated driving controls. NHTSA requests comment on these assumptions, including any information that could help quantify their impacts in the final rule.

Regulatory Flexibility Act

Under the Regulatory Flexibility Act (RFA) (5 U.S.C. 601-612) (as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996; 5 U.S.C. 601 et seq.), agencies must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rulemaking on small entities (i.e., small businesses, small organizations, and small government jurisdictions). No regulatory flexibility analysis is required, however, if the head of an agency or an appropriate designee certifies that the rulemaking will

not have a significant economic impact on a substantial number of small entities. NHTSA has concluded and hereby certifies that this proposed rule will not have a significant economic impact on a substantial number of small entities. As the factual basis for this certification, NHTSA finds as follows: As described elsewhere in the preamble, NHTSA proposes to remove unnecessary regulatory burdens and costs associated with windshield defrosting and defogging systems and windshield wiping and washing systems unnecessary for an ADS-equipped vehicle without manually operated driving controls, with no negative impact to vehicle safety.

National Environmental Policy Act

The Department has analyzed the environmental impacts of this notice of proposed rulemaking pursuant to the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 et seq.). Pursuant to 49 CFR 1.81, the Secretary has delegated the “functions” under NEPA to the Administrators “as they relate to the matters within the primary responsibility of each Operating Administration.” NHTSA has determined that this rule is categorically excluded pursuant to 23 CFR 771.118(c)(4). Categorical exclusions are actions identified in an agency’s NEPA procedures that do not normally have a significant impact on the environment and therefore do not require either an environmental assessment (EA) or environmental impact statement (EIS). *See* DOT Order 5610.1D § 9. In analyzing the applicability of a categorical exclusion, the agency must also consider whether extraordinary circumstances are present that would warrant the preparation of an EA or EIS. *Id.* at § 9(b). The Department’s Operating Administrations (OAs) may apply CEs established in another OA’s procedures. *Id.* at § 9(f). To do so, the Operating Administration “must evaluate the action for extraordinary circumstances identified in the OA procedures in which the CE is established to determine if a normally excluded action may have a significant impact and coordinate with the originating OA to ensure that the CE is being applied correctly.” *Id.* This rulemaking, which proposes to amend FMVSSs No. 103 and No. 104, “Windshield defrosting and defogging systems” and “Windshield wiping and washing systems,” to except vehicles equipped with ADS that do not have manually operated driving

controls from these standards, is categorically excluded pursuant to 23 CFR

771.118(c)(4): Planning and administrative activities not involving or leading directly to construction, such as: Training, technical assistance and research; promulgation of rules, regulations, directives, or program guidance; approval of project concepts; engineering; and operating assistance to transit authorities to continue existing service or increase service to meet routine demand. NHTSA has coordinated with the Federal Transit Administration to ensure that this CE is being applied correctly. NHTSA does not anticipate any environmental impacts, and there are no extraordinary circumstances present in connection with this rulemaking.

Promoting International Regulatory Cooperation

The policy statement in section 1 of Executive Order 13609 provides that the regulatory approaches taken by foreign governments may differ from those taken by the United States to address similar issues, and that in some cases the differences between them might not be necessary and might impair the ability of American businesses to export and compete internationally. It further recognizes that in meeting shared challenges involving health, safety, and other issues, international regulatory cooperation can identify approaches that are at least as protective as those that are or would be adopted in the absence of such cooperation and can reduce, eliminate, or prevent unnecessary differences in regulatory requirements.

In addition, section 24211 of the Infrastructure, Investment, and Jobs Act (P.L. 117-58), Global Harmonization, provides that DOT “shall cooperate, to the maximum extent practicable, with foreign governments, nongovernmental stakeholder groups, the motor vehicle industry, and consumer groups with respect to global harmonization of vehicle regulations as a means for improving motor vehicle safety.”⁸ In this NPRM, the agency is proposing to harmonize with industry standards recognized globally as best practices; therefore, this proposal does not implicate any issues regarding international regulatory cooperation.

⁸ H.R. 3684 (117th Congress) (2021).

Executive Order 13132 (Federalism)

NHTSA has examined this rule pursuant to Executive Order 13132 (64 FR 43255, August 10, 1999) and has tentatively concluded that no additional consultation with States, local governments, or their representatives is mandated beyond the rulemaking process. The agency has tentatively concluded that this rule does not have sufficient federalism implications to warrant consultation with State and local officials or the preparation of a federalism summary impact statement. NHTSA expects that this rule, if adopted, would not have “substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.”

NHTSA rules can have a preemptive effect in two ways. First, the National Traffic and Motor Vehicle Safety Act contains an express preemption provision: When a motor vehicle safety standard is in effect under this chapter, a State or a political subdivision of a State may prescribe or continue in effect a standard applicable to the same aspect of performance of a motor vehicle or motor vehicle equipment only if the standard is identical to the standard prescribed under this chapter. 49 U.S.C. 30103(b)(1). It is this statutory command by Congress that preempts any non-identical State legislative and administrative law addressing the same aspect of performance. NHTSA is not aware of any State motor vehicle equipment or inspection laws or regulations that require ADS-equipped vehicles to be equipped with windshield wiping, washing, and defrosting systems that clear an area intended to accommodate the vision of a human operator relying on manual controls. However, NHTSA seeks comment on whether any such State requirements exist that would be preempted by this rule, if adopted.

The express preemption provision described above is subject to a savings clause under which compliance with a motor vehicle safety standard prescribed under this chapter does not exempt a person from liability at common law. 49 U.S.C. 30103(e). Pursuant to this provision, State common law tort causes of action against motor vehicle manufacturers that might otherwise be preempted by the express preemption provision generally are preserved.

NHTSA rules can also preempt State law if complying with the FMVSS would render the motor vehicle manufacturers liable under State tort law. Because most NHTSA standards established by an FMVSS are minimum standards, a State common law tort cause of action that seeks to impose a higher standard on motor vehicle manufacturers generally will not be preempted. If and when such a conflict does exist—for example, when the standard at issue is both a minimum and a maximum standard—the State common law tort cause of action is impliedly preempted. See *Geier v. American Honda Motor Co.*, 529 U.S. 861 (2000).

Pursuant to Executive Orders 13132 and 12988, NHTSA has considered whether this proposed rule would preempt State common law causes of action. The agency's ability to announce its conclusion regarding the preemptive effect of one of its rules reduces the likelihood that preemption will be an issue in any subsequent tort litigation. This rule addresses the application to vehicles without manual driving controls of requirements that a specified area of the windshield be cleared by a windshield wiping, washing, and defrosting to ensure visibility by a human driver, which do not serve a safety purpose for ADS-equipped vehicles that do not have manual driving controls. NHTSA believes that this change will have no effect on safety. Thus, NHTSA tentatively concludes that no conflict with State common law tort actions would occur. Without any conflict, there could not be any implied preemption of a State common law tort cause of action. NHTSA also seeks comment on this tentative conclusion.

Executive Order 12988 (Civil Justice Reform)

With respect to the review of the promulgation of a new regulation, section 3(b) of Executive Order 12988, "Civil Justice Reform" (61 FR 4729; Feb. 7, 1996), requires that Executive agencies make every reasonable effort to ensure that the regulation: (1) clearly specifies the preemptive effect; (2) clearly specifies the effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct, while promoting simplification and burden reduction; (4) clearly specifies the retroactive effect, if any; (5) specifies whether administrative proceedings are to be required before parties file suit in court;

(6) adequately defines key terms; and (7) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. This document is consistent with these requirements.

Pursuant to this Order, NHTSA notes as follows. The issue of preemption is discussed above. NHTSA notes further that there is no requirement that individuals submit a petition for reconsideration or pursue other administrative proceedings before they may file suit in court. In addition, the rule provides a clear legal standard for compliance and updates to the most current industry standards, while promoting simplification and burden reduction by excepting vehicles without manual controls from the requirements without any reduction in safety.

Privacy Act

Please note that anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). For information on DOT's compliance with the Privacy Act, see www.transportation.gov/privacy.

Unfunded Mandates Reform Act

Section 202 of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104-4, requires Federal agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of more than \$100 million annually (adjusted for inflation with base year of 1995). Adjusting this amount by the implicit gross domestic product price deflator for the year 2024 results in \$187million ($125.224/66.937= 1.87$). This NPRM would not result in a cost of \$187 million or more to either State, local, or tribal governments, in the aggregate, or the private sector. Thus, this NPRM is not subject to the requirements of sections 202 of the UMRA.

Severability

The issue of severability of FMVSSs is addressed in 49 CFR 571.9. It provides that if any FMVSS or its application to any person or circumstance is held invalid, the remainder of the part and the application of that standard to other persons or circumstances is unaffected.

Comments are requested on the severability of these proposed FMVSS changes.

Incorporation by Reference

Under regulations issued by the Office of the Federal Register (1 CFR 51.5(a)), an agency, as part of a proposed rule that includes material incorporated by reference, must summarize the material that it plans to incorporate by reference and discuss the ways the material is reasonably available to interested parties or how the agency worked to make materials available to interested parties.

In this NPRM, NHTSA is proposing to incorporate by reference three documents into the Code of Federal Regulations.

The first document is SAE Recommended Practice J902 (2025), “Passenger Vehicle Windshield Demisting and Defrosting Systems,” replacing SAE Recommended Practices J902 (1964), “Passenger Car Windshield Defrosting Systems,” and J902a (1967), “Passenger Car Windshield Defrosting Systems,” incorporated by reference into FMVSS No. 103. The SAE Recommended Practices J902 (2025), J902 (1964), and J902a (1967) contain specifications for test procedures for windshield defrosting.

The second document is SAE Recommended Practice J903 (2024), “Ground Vehicle Windshield Wiper Systems,” replacing SAE Recommended Practice J903a (1966), “Passenger Car Windshield Wiper Systems,” incorporated by reference into FMVSS No. 104. This standard contains test procedures for windshield wiper systems.

The third document is SAE Recommended Practice J942 (1999), “Passenger Car Windshield Washer Systems,” replacing SAE Recommended Practice J942 (1965), “Passenger

Car Windshield Washer Systems,” incorporated by reference into FMVSS No. 104. This standard establishes test procedures for windshield washer systems.

All three documents would be incorporated by reference as replacements for outdated versions of the recommended practices. The SAE materials are available for review at NHTSA’s headquarters in Washington, D.C. and are available from SAE.⁹

NHTSA is proposing to remove the incorporation by reference to SAE Recommended Practice J941 (1965), “Passenger Car Driver’s Eye Range,” and SAE Aerospace-Automotive Drawing Standards (1963).

Regulation Identifier Number

The Department of Transportation assigns a regulation identifier number (RIN) to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda twice annually. You may use the RIN contained in the heading at the beginning of this document to find this action in the Unified Agenda.

Rulemaking Summary, 5 U.S.C. 553(b)(4)

As required by 5 U.S.C. 553(b)(4), a summary of this rule can be found in the Abstract section of the Department’s Unified Agenda entry for this rulemaking at <https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202504&RIN=2127-AM71>.

National Technology Transfer and Advancement Act

Under the National Technology Transfer and Advancement Act of 1995 (NTTAA) (Public Law 104-113), “all Federal agencies and departments shall use technical standards that are developed or adopted by voluntary consensus standards bodies, using such technical standards as a means to carry out policy objectives or activities determined by the agencies and departments.” Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) developed or adopted

⁹ SAE Recommended Practices may be purchased online at <https://www.sae.org>.

by voluntary consensus standards bodies, such as SAE (formerly, the Society of Automotive Engineers). The NTTAA directs this agency to provide Congress, through OMB, explanations when the agency decides not to use available and applicable voluntary consensus standards.

The agency is proposing to incorporate by reference SAE Recommended Practice J902 (2025) into FMVSS No. 103 and SAE Recommended Practice J903 (2024) into FMVSS No. 104.

VI. Public Participation

How long do I have to submit comments?

Please see DATES section at the beginning of this document.

How do I prepare and submit comments?

- Your comments must be written in English.
- To ensure that your comments are correctly filed in the Docket, please include the Docket Number shown at the beginning of this document in your comments.
- Your comments must not be more than 15 pages long. (49 CFR 553.21). We established this limit to encourage you to write your primary comments in a concise fashion. However, you may attach necessary additional documents to your comments. There is no limit on the length of the attachments.
- If you are submitting comments electronically as a PDF (Adobe) File, NHTSA asks that the documents be submitted using the Optical Character Recognition (OCR) process, thus allowing NHTSA to search and copy certain portions of your submissions. Comments may be submitted to the docket electronically by logging onto the Docket Management System website at www.regulations.gov. Follow the online instructions for submitting comments.
- You may also submit your comments, including the attachments, to Docket Management at the address given above under ADDRESSES.

Please note that pursuant to the Data Quality Act, for substantive data to be relied upon and used by the agency, it must meet the information quality standards set forth in the OMB and DOT Data Quality Act guidelines. Accordingly, we encourage you to consult the guidelines in preparing your comments. OMB's guidelines may be accessed at <http://www.whitehouse.gov/omb/fedreg/reproducible.html>. DOT's guidelines may be accessed at http://www.bts.gov/programs/statistical_policy_and_research/data_quality_guidelines.

How can I be sure that my comments were received?

If you wish Docket Management to notify you upon its receipt of your comments, enclose a self-addressed, stamped postcard in the envelope containing your comments. Upon receiving your comments, Docket Management will return the postcard by mail.

How do I submit confidential business information?

You should submit a redacted "public version" of your comment (including redacted versions of any additional documents or attachments) to the docket using any of the methods identified under **ADDRESSES**. This "public version" of your comment should contain only the portions for which no claim of confidential treatment is made and from which those portions for which confidential treatment is claimed has been redacted. See below for further instructions on how to do this.

You also need to submit a request for confidential treatment directly to the Office of the Chief Counsel. Requests for confidential treatment are governed by 49 CFR Part 512. Your request must set forth the information specified in Part 512. This includes the materials for which confidentiality is being requested (as explained in more detail below); supporting information, pursuant to Part 512.8; and a certificate, pursuant to Part 512.4(b) and Part 512, Appendix A.

You are required to submit to the Office of the Chief Counsel one unredacted "confidential version" of the information for which you are seeking confidential treatment. Pursuant to Part 512.6, the words "ENTIRE PAGE CONFIDENTIAL BUSINESS INFORMATION" or "CONFIDENTIAL BUSINESS INFORMATION CONTAINED WITHIN

BRACKETS” (as applicable) must appear at the top of each page containing information claimed to be confidential. In the latter situation, where not all information on the page is claimed to be confidential, identify each item of information for which confidentiality is requested within brackets: “[].”

You are also required to submit to the Office of the Chief Counsel one redacted “public version” of the information for which you are seeking confidential treatment. Pursuant to Part 512.5(a)(2), the redacted “public version” should include redactions of any information for which you are seeking confidential treatment (i.e., the only information that should be unredacted is information for which you are not seeking confidential treatment).

NHTSA is currently treating electronic submission as an acceptable method for submitting confidential business information to the agency under Part 512. Please do not send a hardcopy of a request for confidential treatment to NHTSA’s headquarters. The request should be sent to Dan Rabinovitz in NHTSA’s Office of the Chief Counsel (NCC) at Daniel.Rabinovitz@dot.gov. You may either submit your request via email or request a secure file transfer link. Manufacturers or any companies that already have a Confidential Business Information (CBI) Portal account or an Enterprise Account with NHTSA should use the CBI Portal for their submission. If you submit a CBI request, please also email a courtesy copy of the request to David Jasinski at David.Jasinski@dot.gov.

Will the agency consider late comments?

We will consider all comments that Docket Management receives before the close of business on the comment closing date indicated above under DATES. To the extent possible, we will also consider comments that Docket Management receives after that date. If Docket Management receives a comment too late for us to consider in developing the final rule, we will consider that comment as an informal suggestion for future rulemaking action.

How can I read the comments submitted by other people?

You may read the comments received by Docket Management at the address given above under ADDRESSES. The hours of the Docket are indicated above in the same location. You may also see the comments on the Internet. To read the comments on the Internet, go to www.regulations.gov. Follow the online instructions for accessing the dockets.

Please note that, even after the comment closing date, we will continue to file relevant information in the Docket as it becomes available. Further, some people may submit late comments. Accordingly, we recommend that you periodically check the Docket for new material.

List of Subjects in 49 CFR Part 571

Motor vehicles, Motor vehicle safety, Incorporation by Reference.

Proposed Regulatory Text

In consideration of the foregoing, NHTSA proposes to amend 49 CFR part 571 as set forth below.

PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS

1. The authority citation for part 571 continues to read as follows:

Authority: 49 U.S.C. 322, 30111, 30115, 30117, and 30166; delegation of authority at 49 CFR 1.95.

2. Section 571.5 is amended by:

- a. Revising paragraphs (l)(29) and (l)(30);
- b. Removing paragraph (l)(31);
- c. Redesignating paragraph (l)(32) as paragraph (l)(31);
- d. Removing paragraph (l)(33);
- e. Redesignating paragraphs (l)(34) through (l)(50) as paragraphs (l)(32) through (l)(48), respectively;
- f. Revising the redesignated paragraph (l)(33);
- g. Removing paragraph (l)(51).

The revisions read as follows:

§ 571.5 Matter incorporated by reference.

(1) ***

(29) SAE Recommended Practice J902, “Passenger Vehicle Windshield Demisting and Defrosting Systems,” revised June 2025, into § 571.103.

(30) SAE Recommended Practice J903, “Ground Vehicle Windshield Wiper Systems,” revised October 2024, into § 571.104.

(33) SAE Recommended Practice J942, “Passenger Car Windshield Washer Systems,” revised June 1999, into § 571.104.

3. Section 571.103 is amended by:

- a. Revising paragraph S2,
- b. Revising paragraph S4.2,
- c. Revising paragraph S4.3, and
- d. Removing S4.3 (a) through (h).

The revisions read as follows:

§ 571.103 Standard No. 103; Windshield defrosting and defogging systems.

S2. *Application.* This standard applies to passenger cars, multipurpose passenger vehicles, trucks, and buses. Vehicles without manually operated driving controls are excepted from this standard.

S4.2 Each passenger car windshield defrosting and defogging system shall meet the requirements of Section 4.1 of SAE Recommended Practice J902, “Passenger Vehicle Windshield Demisting

and Defrosting Systems,” revised June 2025, (incorporated by reference, see §571.5) when tested in accordance with S4.3, except that the windshield areas A and C identified in Appendix A of SAE J902 shall be those established in accordance with §571.104.

S4.3 *Demonstration procedure.* The passenger car windshield defrosting and defogging system shall be tested in accordance with the portions of paragraphs 5.1 through 5.2.1.25 of SAE Recommended Practice J902 applicable to that system, including all specifications denoted as “SAE/FMVSS” or “FMVSS.”

4. Section 571.104 is amended by:

- a. Revising paragraph S2,
- b. Amending S3 by revising the definitions of “Daylight opening” and “Overall width” and removing the definitions of “Glazing surface reference line,” “Plan view reference line,” “Shoulder room dimension,” and “95 percent eye range contour,”
- c. Revising subparagraph S4.1.1.4, and
- d. Revising S4.1.2.

The revisions read as follows:

§ 571.104 Standard No. 104; Windshield wiping and washing systems.

S2. *Application.* This standard applies to passenger cars, multipurpose passenger vehicles, trucks, and buses. Vehicles without manually operated driving controls are excepted from this standard.

S3. ***

Daylight opening means the maximum unobstructed opening through the glazing surface.

Overall width means the same as *overall vehicle width*, defined in §571.3.

S4. *****

S4.1.1.4 Compliance with subparagraphs S4.1.1.2 and S4.1.1.3 may be demonstrated by testing under the conditions specified in sections 5.2.1 and 5.2.2 of SAE Recommended Practice J903,

“Ground Vehicle Windshield Wiper Systems,” revised October 2024, (incorporated by reference, see § 571.5).

S4.1.2 *Wiped area*. When tested wet in accordance with SAE Recommended Practice J903, each passenger car windshield wiping system shall wipe the percentage of Areas A, B, and C of the windshield (established in accordance with S4.1.2.1) that: (1) is specified in column 2 of the applicable table following subparagraph S4.1.2.1; and (2) is within the area bounded by a perimeter line on the glazing surface 25 millimeters from the edge of the daylight opening.

S4.1.2.1 Areas A, B, and C shall be established as shown in Figure 6 of SAE Recommended Practice J903 using the angles specified in Columns 3 through 6 of Table I, II, III, or IV, as applicable.

S4.2.1 Each passenger car shall have a windshield washing system that meets the requirements of SAE Recommended Practice J942, “Passenger Car Windshield Washer Systems,” revised June 1999, (incorporated by reference, see § 571.5), except that the text, “80% of the total wash area and 90% of the wash area included in area C as defined in SAE J903 for passenger cars and SAE J198 for trucks, buses, and multipurpose vehicles” shall be deleted and “the areas established in accordance with subparagraph S4.1.2.1 of Motor Vehicle Safety Standard No. 104” shall be inserted in lieu thereof.

S4.2.2 Each multipurpose passenger vehicle, truck, and bus shall have a windshield washing system that meets the requirements of SAE Recommended Practice J942 (incorporated by reference, see § 571.5), except that the text, “80% of the total wash area and 90% of the wash area included in area C as defined in SAE J903 for passenger cars and SAE J198 for trucks, buses, and multipurpose vehicles” shall be deleted and “the pattern designed by the manufacturer for the windshield wiping system on the exterior surface of the windshield glazing” shall be inserted in lieu thereof.

Issued on March 11, 2026, in Washington, D.C., under authority delegated in 49 CFR 1.95.

Jonathan Morrison,

Administrator.

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