: 4910-59-P

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

[Docket No. NHTSA-2026-0001]

RIN 2127-AM79

Federal Motor Vehicle Safety Standards: Anti-Ejection Glazing for Bus Portals; Mandatory Applicability Beginning October 30, 2027

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

ACTION: Final rule; partial grant of a petition for reconsideration

SUMMARY: This document partially grants a petition for reconsideration of the October 30, 2024 final rule that established Federal Motor Vehicle Safety Standard (FMVSS) No. 217a, "Anti-ejection glazing for bus portals; Mandatory applicability beginning October 30, 2027." The standard intends to drive installation of advanced glazing in over-the-road buses (motorcoaches) and other large buses to reduce occupant ejections. This final rule revises the minimum size requirement for applicable portals, adds a figure to illustrate a daylight opening periphery, and clarifies the target location for edge impact tests. This document denies all other portions of the petition for reconsideration, including revising the definition of "daylight opening."

DATES: *Effective Date:* This final rule is effective [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

Compliance Date: The compliance date of this final rule is October 30, 2027. Optional early compliance is permitted.

Petitions for Reconsideration: If you wish to petition for reconsideration of this rule, your petition must be received by **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Petitions for reconsideration of this final rule must refer to the docket and notice number set forth above and be submitted to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue SE, Washington, DC 20590. Note that all petitions received will be posted without change to the docket for this rulemaking at www.regulations.gov, including any personal information provided.

Confidential Business Information: If you wish to submit confidential business information, see the instructions in the rulemaking analyses and notices section.

FOR FURTHER INFORMATION, CONTACT: For non-legal issues, you may email Mr. James Myers, NHTSA Office of Crashworthiness Standards (James.Myers@dot.gov). For legal issues, you may email Mr. John Piazza, NHTSA Office of Chief Counsel (John.Piazza@dot.gov). You may contact these officials by phone at 202-366-1810 or by mail at the National Highway Traffic Safety Administration, 1200 New Jersey Avenue SE, Washington, DC 20590.

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I. Background

On October 30, 2024, NHTSA published a final rule that established FMVSS No. 217a, "Anti-ejection glazing for bus portals; Mandatory applicability beginning October 30, 2027" (89 FR 86255, Docket No. NHTSA-2024-0061). The purpose of this safety standard is to drive the installation of advanced glazing in over-the-road buses (motorcoaches) and other large buses[1] to reduce passenger and driver ejections. The standard is designed to ensure window glazing remains securely bonded to window frames, no potential ejection portals are created due to breaking of the glazing, and windows do not open during a crash, even if an occupant is thrown against the glazing. The October 30, 2024 final rule fulfilled a statutory mandate in the Motorcoach Enhanced Safety Act of 2012, which was incorporated and passed as part of the Moving Ahead for Progress in the 21st Century Act (MAP-21). Under section 32702 of MAP-21, "advanced glazing" means "glazing installed in a portal on the side or the roof of a motorcoach that is designed to be highly resistant to partial or complete occupant ejection in all types of motor vehicle crashes."

To accomplish this safety objective, FMVSS No. 217a specifies minimum requirements that applicable bus window glazing must meet when it is contacted by an impactor launched at the window at a specified speed. The impactor and impact speed are designed to simulate an average size unrestrained adult male thrown from one side of a large bus and impacting a window on the opposite side of the bus in a rollover. Each side window and glass panel/window on the roof may be subject to any one of three impacts, as selected by NHTSA in a compliance

[1] FMVSS No. 217a is applicable to over-the-road buses manufactured on or after October 30, 2027. The standard is also applicable to buses, other than over-the-road buses, that have a gross vehicle weight rating (GVWR) greater than 11,793 kilograms (kg) manufactured on or after October 30, 2027. This standard does not apply to school buses, transit buses, prison buses, and perimeter-seating buses.

test: (a) an impact near a latching mechanism or (for windows without latches) the center of the lower window edge of an intact window; (b) an impact at the center of the daylight opening of an intact window; and (c) an impact at the center of the daylight opening of a pre-broken window. No part of the window may displace past a pre-defined ejection reference plane during the impact, and the window must prevent passage of a 102-millimeter (mm) (4 inch) diameter sphere after the impact. In addition, emergency exits must remain operable after the impactor test.

These requirements ensure that the glazing is securely bonded to the window frames, no potential ejection portals are created due to breaking of the glazing, the windows remain closed when impacted, and emergency exits remain operable after the crash. The test with the pre-broken glazing encourages the installation of advanced glazing. The requirements also help ensure the advanced glazing retains occupants within the structural sidewall of the bus in a crash.

II. Petition for Reconsideration and Agency Response

NHTSA received a petition for reconsideration of the October 30, 2024 final rule from one respondent, IC Bus, LLC ("IC Bus").[2] In its petition, IC Bus requested that NHTSA adjust aspects of the final rule and requests clarification on aspects of the final rule. IC Bus also identified two typographical errors in the published standard.

a. Daylight Opening Definition

IC Bus requested two adjustments to the definition of "daylight opening." It requested that NHTSA include the following statement in the daylight opening definition: "Only the innermost portion of the window frame is used to determine the daylight opening." [3] IC Bus also requested that NHTSA add a figure from the Technical Support Document that was included in

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[2] IC Bus, LLC, petition for reconsideration of FMVSS No. 217a final rule https://www.regulations.gov/document/NHTSA-2024-0061-0004

[3] Ibid., p. 4

the docket with the October 2024 final rule.[4] The figure represents the cross-section of an example bus window, which illustrates the periphery of the daylight opening. The original figure can be found in the Technical Support Document published with the final rule in Docket No. NHTSA-2024-0061. IC Bus stated in its petition that, "the regulation does not provide any reference to this Technical Supporting Document, which leads to a concern that manufacturers looking at this regulation in the future may not be aware that such helpful clarification exists."[5]

As defined in FMVSS No. 217a, daylight opening means, for openings on the side of the vehicle (other than a door opening), the locus of all points where a horizontal line, perpendicular to the vehicle longitudinal centerline, is tangent to the periphery of the opening. For openings on the roof of the vehicle, daylight opening means the locus of all points where a vertical line is tangent to the periphery of the opening. The periphery includes surfaces 100 millimeters (mm) inboard of the inside surface of the window glazing and 25 mm outboard of the outside surface of the window glazing. The periphery excludes the following: Any flexible gasket material or weather stripping used to create a waterproof seal between the glazing and the vehicle interior; grab handles used to facilitate occupant egress and ingress; and any part of a seat.[6] This definition is modified slightly from the definition used in FMVSS No. 226, "Ejection Mitigation" which establishes requirements for ejection mitigation systems to reduce the likelihood of occupant ejections in light-duty vehicles.[7]

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[4] National Highway Traffic Safety Administration, Technical Support Document: Impactor Details and Daylight Opening, Docket No. NHTSA-2024-0061, Supporting Documents Folder, https://www.regulations.gov/document/NHTSA-2024-0061-0002.

[5] IC Bus, LLC, petition for reconsideration of FMVSS No. 217a final rule, p. 4, https://www.regulations.gov/document/NHTSA-2024-0061-0004.

[6] U.S. Department of Transportation, National Highway Traffic Safety Administration, Federal Motor Vehicle Safety Standard No. 217a: Anti-Ejection Glazing for Bus Portals, 49 CFR 571.217a S4, https://www.ecfr.gov/current/title-49/subtitle-B/chapter-V/part-571.

[7] FMVSS No. 226 uses the term "side daylight opening." According to the standard, a side daylight opening "means, other than a door opening, the locus of all points where a horizontal line, perpendicular to the vehicle vertical longitudinal plane, is tangent to the periphery of the opening. The periphery includes surfaces 100 millimeters inboard of the inside surface of the window glazing and 25 mm outboard of the outside surface of the side glazing. The periphery excludes the following: any flexible gasket material or weather stripping used to create

Agency Response: NHTSA partially grants the petition to revise the definition of "daylight opening" as requested by IC Bus.

First, IC Bus requested NHTSA add the following statement into the definition of daylight opening: "Only the innermost portion of the window frame is used to determine the daylight opening."[8] This statement is unnecessary and may increase confusion interpreting the definition without also specifying what is meant by "innermost."

Because the current definition explains that the periphery includes surfaces 100 mm inboard and 25 mm outboard of the glazing surface, the concept of IC Bus's request is already included in the definition. Further, the definition of "daylight opening" is modified only slightly from the existing standard FMVSS No. 226, and manufacturers have not informed NHTSA of any confusion when complying with that standard. Therefore, NHTSA denies IC Bus's request to add the statement into the definition of "daylight opening."

Next, IC Bus requested that Figure 7 in the Technical Support Document,[9] which was submitted to the docket with the FMVSS No. 217a final rule, be included in the standard. The purpose of that figure and the Technical Support Document was to provide helpful context and examples for aspects of the final rule. This supplemental document and the figures within it will remain accessible on the public docket to manufacturers or other interested parties. However, NHTSA agrees with IC Bus that the figure could be a helpful addition to the regulatory text by making it easier for manufacturers to understand how to determine the daylight opening periphery. This figure is for illustrative purposes only and does not represent all possible daylight opening configurations. Therefore, NHTSA is adding the figure to the regulatory text

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a waterproof seal between the glazing or door and the vehicle interior; grab handles used to facilitate occupant egress and ingress; and any part of a seat."

[8] IC Bus, LLC, petition for reconsideration of FMVSS No. 217a final rule, p. 4, https://www.regulations.gov/document/NHTSA-2024-0061-0004

[9] National Highway Traffic Safety Administration, Technical Support Document: Impactor Details and Daylight Opening, Figure 7, Docket No. NHTSA-2024-0061, Supporting Documents Folder, https://www.regulations.gov/document/NHTSA-2024-0061-0002.

and amending the definition of "daylight opening" to include the following sentence: "An example of a daylight opening periphery is provided in Figure 3 for illustrative purposes only."

b. Minimum Size Requirement

FMVSS No. 217a states in paragraph S5 that the standard's requirements do not apply to a side or roof portal whose minimum surface dimension measured through the center of its area is less than 279 mm. This minimum size requirement ensures that the glazing being tested is large enough for the impactor to effectively evaluate its anti-ejection capabilities without impacting the window frame or other structural components. IC Bus petitioned NHTSA to specify in paragraph S5 that the minimum size requirement applies to the daylight opening of the portal, and not the portal itself. Specifically, IC Bus recommended changing the relevant sentence of paragraph S5 to read as follows: "The requirements of this paragraph S5 do not apply to portals other than side and roof portals, and do not apply to a side or roof portal with a daylight opening whose minimum surface dimension measured through the center of its area is less than 279 mm."

Agency Response: NHTSA agrees with IC Bus and grants its petition as requested. The definition of a "portal" according to FMVSS No. 217a is "an opening that could, in the event of a crash involving the vehicle, permit the partial or complete ejection of an occupant from the vehicle, including a young child." While a door or roof hatch may meet the definition of a portal even if there is no glazing present, such portals are outside the scope of FMVSS No. 217a. As previously stated, the intent of FMVSS No. 217a is to drive the installation of advanced glazing in motorcoaches and other large buses to reduce passenger and driver ejections. Therefore, to better align the requirements of the standard to the intent of the standard, NHTSA is adjusting paragraph S5 to state that the requirements "do not apply to a side or roof portal with a daylight opening whose minimum surface dimension measured through the center of its area is less than 279 mm."

c. Discrete Attachment Point

Paragraph S6.1.1 of FMVSS No. 217a describes the test location for the edge impact test procedure. During the 2013 Motorcoach Side Glazing Retention Research testing,[10] NHTSA determined there was a safety need for a test that assesses the ability of window latches to keep the window closed when subjected to impactor loading. The edge impact test is designed to test the glazing near the window latch if a latch is present. If the window does not have a latch, the glazing is impacted at the edge of the glazing as described in paragraph S6.1.1(a) or S6.1.1(b).

Paragraph S6.1.1 states that when aligning the impactor face to the test location for the edge impact test, it is positioned such that the center of the impactor face plate is as close as practicable to the center of the latch attachment point or discrete attachment point. In the preamble of the October 2024 final rule, NHTSA justified that choice because the location where the latch attaches to the movable portion of the window is where the latch is most likely to fail. The regulatory text specified the impactor face plate must align as closely as practicable to the center of the latch attachment point or discrete attachment point. The purpose of adding the term "discrete attachment point" was to account for varying latch designs, where the handle of the latch, body of the latch, and attachment point of the latch to the window may be laterally or vertically offset from one another.

IC Bus requested that NHTSA define or clarify what is meant by a "discrete attachment point." It emphasized that, according to the standard, the impactor face must be positioned adjacent to a latch or discrete attachment point when setting up the edge impact test. Since there is not a definition of "discrete attachment point" provided in the standard, IC Bus requested that NHTSA provide one. It also asked if discrete attachment points are in reference to physical fasteners that attach the window to the window frame, or to emergency exit window hinges that connect the overall window frame to the vehicle body.

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[10] Duffy, S., & Prasad, A., National Highway Traffic Safety Administration, Motorcoach Side Glazing Retention Research, (Report No. DOT HS 811 862) (Nov. 2013).

Agency Response: As NHTSA described in the final rule preamble, the term "discrete attachment point" is applicable only in the context of a bus window latch.[11] NHTSA also stated in the May 2016 Notice of Proposed Rulemaking (NPRM)[12] that an intent of the edge impact test was to evaluate window latches if they are present. However, NHTSA agrees with IC Bus that the term could be misinterpreted in the regulatory text. In addition to latches, bus windows may have hinges or other hardware with discrete attachment points that connect the window to the bus frame. Targeting attachment components other than latches for testing is not included in the scope of this standard.

To address this request in IC Bus's petition for reconsideration, NHTSA will remove the term "discrete attachment point" and define the term "latch attachment point." The regulatory text does not need to reference both a "latch attachment point" and a "discrete attachment point" because both terms describe the same location. This approach simplifies the paragraph and ensures the test location is identified clearly for any window type or latch type. The term "latch attachment point" will be defined in paragraph S4 as "the center point of the latch's interface connecting the window and the bus structure when the window is closed and the latch is in the locked position."

This change removes reference to the term "discrete attachment point" within paragraph S6.1.1 and defines "latch attachment point" within paragraph S4. This point represents the part of the latching mechanism that connects the window to the bus structure. This is the point where an insufficient latch could result in a failure to comply with the impactor testing as demonstrated in NHTSA's 2013 Motorcoach Side Glazing Retention Research. Testing near this location also aligns with the intent of the edge impact test. The revisions to paragraphs S4 and S6.1.1 clarify

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[11] 89 FR 86272

[12] 81 FR 27917

any confusion surrounding discrete attachment points, answers IC Bus's specific questions, and better describes the test location for the edge impact test.

d. Irregular Daylight Openings

The daylight opening for a typical bus window is usually a regular geometric shape with a clearly defined and easily measurable center point. However, there are scenarios where a window may be partially blocked by a structure such as a stowed wheelchair lift or a luggage rack, resulting in an irregularly shaped daylight opening. It may be difficult to accurately locate the center of an irregularly shaped daylight opening.

IC Bus provided a figure on page 5 of its petition for reconsideration, which depicts a bus window partially blocked by a stowed wheelchair lift. It noted that the resulting daylight opening may not be a regular geometric shape where the center would be obvious. IC Bus asked how NHTSA would measure the minimum surface dimension through the center of the daylight opening during a compliance test.

Agency Response: NHTSA will address this issue about locating the center of regular and irregular daylight openings in the test procedure for compliance testing and not in the regulatory text of the final rule. The regulatory text of the final rule outlines the general requirements and procedures of the standard and does not need to outline the specific measurement techniques and equipment the agency will use in compliance testing. Those details will be described in the applicable test procedure and that will be available on NHTSA's website.[13]

As a related example, the test procedure associated with FMVSS No. 226, "Ejection Mitigation" is outlined in TP-226-00,[14] specifies the use of a portable Coordinate Measuring Machine (CMM) for determining the center of the side daylight opening. A CMM can precisely

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[13] https://www.nhtsa.gov/vehicle-manufacturers/test-procedures

[14] Id.

measure the geometry of the daylight opening, allowing NHTSA to mathematically calculate the geometric center. NHTSA will use a similar approach to determine the center of daylight openings for FMVSS No. 217a. The associated test procedure document will outline these details. Therefore, no further details will be included in the final rule regulatory text.

e. Other Clarifications

IC Bus also sought clarification from NHTSA on three additional points: (1) Whether restraining barriers, stanchions, and Lexan safety shields would be included or excluded from the periphery of the daylight opening; (2) if a stowed wheelchair lift needs to be within 100 mm of the interior window surface to be considered "blocking" the window; and (3) whether one window could be split up into multiple daylight openings if the window is blocked by something like a luggage rack or shelves, and whether each daylight opening would be tested separately. IC Bus provided graphical illustrations of the scenarios for points (2) and (3).

NHTSA provides responses below with the intent to assist in the understanding of the final rule for IC Bus and any other interested parties. However, these items are not petitions for reconsideration because they do not request regulatory text changes.

1. Components Excluded from the Daylight Opening Periphery

According to the daylight opening definition, the periphery includes surfaces within 100 mm inboard and 25 mm outboard of the glazing surface. The periphery excludes flexible gasket material or weather stripping used to create a waterproof seal between the glazing and the vehicle interior, grab handles used to facilitate occupant egress and ingress, and any part of a seat.

IC Bus requested clarification on whether restraining barriers, stanchions, and Lexan safety shields would be included or excluded from the periphery. IC Bus claimed restraining barriers are "essentially the same as seatbacks, and seats are specified as excluded…." Thus, IC Bus sought confirmation that restraining barriers would be excluded from the periphery. For stanchions, IC Bus described them as "upright bars or posts used to support the roof, luggage, or

storage compartment." IC Bus sought confirmation that stanchions would not be excluded from the periphery. IC Bus stated Lexan safety shields are "used to separate interior sections or compartments or prevent passenger contact with interior items." IC Bus sought confirmation that Lexan safety shields would not be excluded from the periphery.

Agency Response: The agency agrees with IC Bus's evaluation that restraining barriers are excluded from the periphery while stanchions and Lexan safety shields are not. In other words, if Lexan safety shields or stanchions are within 100 mm of the interior glazing surface or 25 mm of the exterior glazing surface, they would be included in the periphery of the daylight opening.

IC Bus manufactures primarily school buses and other buses based on school bus platforms.[15] Restraining barriers are padded panels, similar to school bus seat backs, generally located in front of a school bus seat without any seat in front of it. Restraining barriers may also be in buses that are based on school bus platforms. Similar to school bus seat backs, restraining barriers provide passenger crash protection by absorbing impact energy and containing students within a designated safety zone. While restraining barriers are capable of preventing passenger movement past the barrier in a frontal crash or a sudden braking maneuver, these barriers are not designed to prevent passengers from being ejected through an ejection portal in a rollover or side impact crash. Therefore, NHTSA is excluding restraining barriers from the periphery of the daylight opening and will update the daylight opening definition to reflect this exclusion.

Stanchions are typically solid structures capable of providing a positive effect in terms of ejection mitigation. Stanchions are also distinct from "grab handles," which are excluded from the periphery. Grab handles are excluded from the periphery in FMVSS No. 217a for the same reason they are excluded from the periphery in FMVSS No. 226. These grab handles are typically located on the A-pillar of the vehicle and often protrude into the daylight opening.

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[15] https://www.icbus.com/

They are also typically non-structural and unlikely to provide a positive effect in terms of ejection mitigation. Since stanchions are distinct from these grab handles, and they are expected to have a positive effect in terms of ejection mitigation, NHTSA confirms IC Bus's understanding that they are not excluded from the periphery of the daylight opening.

Lexan, or polycarbonate, is a transparent thermoplastic material with high stiffness and impact resistance.[16] This material is often installed in large buses and motorcoaches to prevent passengers from entering certain areas, to prevent occupants from throwing items at drivers, or as partitions between sections of a bus's interior. To leverage polycarbonate's high stiffness, the sheet must be securely mounted within the bus to minimize deflection. Such an installation will block a passenger's movement past the barrier. Since polycarbonate barriers are not listed as an exclusion to the periphery and are likely to have a positive effect on ejection mitigation due to the high stiffness of the material, NHTSA confirms IC Bus's understanding that they will not be excluded from the periphery.

2. Daylight Opening with Partially Blocked Window

IC Bus stated its understanding that a stowed wheelchair lift would need to be within 100 mm of the interior window surface in order for it to be considered "blocking" the window. Additionally, IC Bus stated it understands that the portion of the wheelchair lift blocking the window becomes part of the periphery of the daylight opening, and the unblocked portion of the window becomes the daylight opening. IC Bus provided an illustration of the scenario it described on page 7 of its petition for reconsideration. The figure shows a graphical representation of a rectangular bus window with the bottom portion blocked by a stowed wheelchair lift. IC Bus sought confirmation that its understanding was correct, and that the

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[16] Laminated Plastics, "Technical Data Sheet Polycarbonate," https://laminatedplastics.com/polycarbonate.pdf accessed August 25, 2025)

resulting daylight opening as described would need a minimum surface dimension of 279 mm to be required to comply with the FMVSS No. 217a impact requirements.

Agency Response: IC Bus's understanding of the scenario is correct. The daylight opening is the unblocked portion of the window when the wheelchair lift that blocks the bottom of the window is within 100 mm of the interior glazing surface.

3. One Window with Multiple Daylight Openings

IC Bus requested clarification on a scenario where a bus window may be split up into multiple daylight openings if it is blocked by equipment such as shelves, stanchions, or a luggage rack. Specifically, IC Bus asked whether each daylight opening for the window would require separate edge, center, and pre-broken glazing impact validation, assuming the minimum surface dimension measured through the center of each daylight opening was greater than or equal to 279 mm. IC Bus provided a figure to illustrate this scenario on page 8 of its petition for reconsideration. The figure is a graphical representation of a rectangular bus window blocked by two long, horizontal bars representing shelves or a luggage rack. When these bars are within 100 mm of the interior glazing surface, they are included in the periphery of the daylight opening. Additionally, because these bars are longer than the width of the window, the result is a single window split into three separate daylight openings. IC Bus specifies in the figure that two of the three daylight openings have a minimum surface dimension greater than 279 mm.

Agency Response: For the scenario described and illustrated by IC Bus, NHTSA agrees that the single window would be split into multiple daylight openings. If there are multiple daylight openings that meet the minimum size requirements, any of those daylight openings could be selected for impact test validation by NHTSA in a compliance test. Any daylight openings that do not meet the minimum size requirement would not be subject to any impact test validation.

III. Corrections

In addition to the requests discussed above, IC Bus also notified NHTSA of two typographical errors in the published version of the October 2024 final rule regulatory text. NHTSA is correcting both errors with this final rule.

The first correction is in paragraph S5 in the regulatory text. The letter "n" erroneously appears in the middle of the second sentence. NHTSA is deleting the letter "n" in this paragraph.

The second correction is in the figures in the regulatory text of the standard. As IC Bus noted, the figure numbers are not included in the figures. NHTSA is adding the figure numbers to those figures with this final rule.

IV. Good Cause

NHTSA finds that issuing this final rule without additional notice and comment is appropriate under the "good cause" exception in 5 U.S.C. 553(b)(B). The APA authorizes agencies to issue regulations without notice and public comment when an agency finds, for good cause, that notice and comment is "impracticable, unnecessary, or contrary to the public interest," 5 U.S.C. 553(b)(B), and to make the rule effective immediately for good cause. 5 U.S.C. 553(d)(3). NHTSA has determined that an opportunity for notice and comment on this final rule is unnecessary. The changes in this final rule are made in response to petitions for reconsideration submitted to NHTSA in response to and docketed in the record of the October 2024 final rule, which is supported by an extensive administrative record, in accordance with 49 CFR 553.35 and 49 CFR 553.37.[17] This final rule makes only technical changes within the ambit of the comments already received and addressed in the October 2024 final rule. Specifically, NHTSA includes a figure from the Technical Support Document in the standard for illustrative purposes. NHTSA also updates the regulatory text to clarify that doors and roof hatches with a daylight opening whose minimum surface dimension is less than 279 mm are

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[17] These regulations grant to the Administrator the authority, consistent with 5 U.S.C. 553b(B), to issue a final decision in response to petitions for reconsideration without further proceedings or with opportunity for further comment as the Administrator deems appropriate.

outside the scope of FMVSS No. 217a. NHTSA also substitutes the term "latch attachment point" for "discrete attachment point" and defines "latch attachment point" as the part of the latching mechanism that connects the window to the bus structure. This change is intended to clarify that the regulation refers to a latch, not hinges or other hardware with discrete attachment points that connect the window to the bus frame.

In addition, NHTSA notes that given the long development times involved in motor vehicle design and manufacturing, manufacturers are nearing the time at which design changes required by the October 2024 final rule must be made and finalized to meet production schedules for the model years that must comply.

IV. Rulemaking Analysis and Notices

Executive Order 12866, Executive Order 14192, and DOT Regulatory Policies and Procedures

NHTSA has considered the impact of this rule under Executive Order 12866 and Executive Order 14192. NHTSA has considered the costs and benefits of the final rule under the principles of these executive and departmental orders. Please refer to the October 2024 final rule for this discussion. This rule, which clarifies certain aspects of the October 2024 final rule, may facilitate compliance by regulated entities, but is not expected to result in any costs or benefits beyond those examined in the October 2024 final rule. Therefore, this rule is neither a regulatory or a deregulatory action pursuant to E.O. 14192.

Regulatory Flexibility Act

Pursuant to the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.,* as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish a notice of proposed rulemaking or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (*i.e.,* small businesses, small organizations and small governmental jurisdictions), unless the head of an agency certifies the rule will not have a significant economic

impact on a substantial number of small entities. Agencies must also provide a statement of the factual basis for this certification. Because NHTSA is not required to publish this rule for comment, the analytical requirements of the RFA do not apply.

NHTSA notes, however, that NHTSA does not believe this final rule will have a significant economic impact on affected small entities as identified in the October 2024 final rule. This final rule revises the minimum size requirement verbiage for applicable portals, adds a figure to illustrate a daylight opening periphery, and clarifies the target location for edge impact tests. These are minor adjustments to the October 2004 final rule and are not expected to impose costs above those already considered as part of the October 2024 final rule. NHTSA determined that the October 2024 final rule would not have a significant economic impact on a substantial number of small entities, and the amendments in this rule do not change that finding.

Executive Order 13132 (Federalism)

NHTSA has examined this final rule pursuant to E.O. 13132 (64 FR 43255, August 10, 1999) and concluded that no additional consultation with States, local governments or their representatives is mandated beyond the rulemaking process. NHTSA has concluded that the rulemaking would not have sufficient federalism implications to warrant consultation with State and local officials or the preparation of a federalism summary impact statement. This final rule 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 preemptive effect in two ways. First, the National Traffic and Motor Vehicle Safety Act contains an express preemption provision stating that, if NHTSA has established a standard for an aspect of motor vehicle or motor vehicle equipment performance, a State may only prescribe or continue in effect a standard for that same aspect of performance if

the State standard is identical to the Federal standard.[18] It is this statutory command by Congress that preempts any non-identical State legislative and administrative law addressing the same aspect of performance.

The express preemption provision described above is subject to a savings clause under which "[c]ompliance with a motor vehicle safety standard prescribed under this chapter does not exempt a person from liability at common law."[19] 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 are generally 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 will generally not be preempted. However, 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.[20]

Pursuant to E.O. 13132, NHTSA has considered whether this final rule could or should 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. To this end, the agency has examined the nature (e.g., the language and structure of the regulatory text) and objectives of this final rule and finds that this final rule, like many NHTSA rules, prescribes only a minimum safety standard. Accordingly, NHTSA does not intend that this final rule preempt state tort law that would effectively impose a higher standard on motor vehicle manufacturers than that established by this

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[18] 49 U.S.C. 30103(b)(1).

[19] 49 U.S.C. 30103(e).

[20] *See Geier v. American Honda Motor Co.*, 529 U.S. 861 (2000).

final rule. Establishment of a higher standard by means of State tort law would not conflict with the minimum standard finalized in this document. Without any conflict, there could not be any implied preemption of a State common law tort cause of action.

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

The issue of preemption is discussed in the section discussing Executive Order 13132 (Federalism). NHTSA believes that this final rule specifies clearly the changes made to FMVSS No. 217a and that this rule provides a clear legal standard for manufacturers to follow. 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.

Executive Order 13609 (Promoting International Regulatory Cooperation)

Executive Order 13609, "Promoting International Regulatory Cooperation," promotes international regulatory cooperation to meet shared challenges involving health, safety, labor, security, environmental, and other issues and to reduce, eliminate, or prevent unnecessary differences in regulatory requirements.

The agency participates in the negotiation and development of technical standards for Safety Glazing in the United Nations Economic Commission for Europe (UNECE) World Forum for Harmonization of Vehicle Regulations (WP.29). As a signatory member, NHTSA is

obligated to initiate rulemaking to incorporate safety requirements and options specified in Global Technical Regulations (GTRs) if the U.S. votes in the affirmative to establish the GTR. No GTR for anti-ejection glazing for bus portals has been developed at this time.

NHTSA has analyzed this rule under the policies and agency responsibilities of Executive Order 13609 and has determined this rulemaking will have no effect on international regulatory cooperation.

National Environmental Policy Act

The Department has analyzed the environmental impacts of this rulemaking pursuant to the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 *et seq.*) and DOT Order 5610.1D.[21] 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). This rulemaking, which proposes to partially grant a petition for reconsideration of the October 30, 2024, final rule that established Federal Motor Vehicle Safety Standard (FMVSS) No. 217a, "Anti-ejection glazing for bus portals; Mandatory applicability beginning October 30, 2027," revises the minimum size requirement verbiage for applicable portals; adds a figure to illustrate a daylight opening periphery; clarifies the target location for edge impact tests; and denies other portions of the petition for reconsideration, including revising the definition of "daylight opening." This rulemaking is categorically excluded pursuant to 23 CFR 771.118(c)(4) (Planning and administrative activities not involving or leading directly to

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[21] DOT's Procedures For Considering Environmental Impacts, DOT Order 5610.1D, July 2025, https://www.transportation.gov/sites/dot.gov/files/2025-07/DOT_Order_5610.1D_OST-P-250627-001_508_Compliant.pdf

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 does not anticipate any environmental impacts, and there are no extraordinary circumstances present in connection with this rulemaking.

Paperwork Reduction Act

Under the procedures established by the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501, *et seq.*), a Federal agency must request and receive approval from OMB before it collects certain information from the public and a person is not required to respond to a collection of information by a Federal agency unless the collection displays a valid OMB control number. This rulemaking does not contain any information collection requirements as defined by OMB in 5 CFR part 1320.

National Technology Transfer and Advancement Act

Under the National Technology Transfer and Advancement Act of 1995 (NTTAA) (Pub. L. 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) that are developed or adopted by voluntary consensus standards bodies, such as SAE. The NTTAA directs the agency to provide Congress, through OMB, explanations when the agency decides not to use available and applicable voluntary consensus standards. The NTTAA requires agencies to use voluntary consensus standards in lieu of government-unique standards except where inconsistent with law or otherwise impractical. There are no voluntary consensus standards developed by voluntary consensus standards bodies pertaining to this final rule.

Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531-1538) (UMRA) requires Federal agencies to assess the effects of regulatory actions that may result in the expenditure by a State, local, or Tribal government, in the aggregate, or by the private sector of $206 million (the value equivalent of $100 million in 1995, adjusted for inflation to 2025) or more in any 1 year. This final rule does not contain Federal mandates (under the regulatory provisions of Title II of the UMRA) for State, local and Tribal governments, or the private sector of $206 million or more in any one year. Thus, the analytical requirements of the UMRA do not apply to this action.

Executive Order 13175

Executive Order 13175 requires Federal agencies to consult and coordinate with Tribes on a government-to-government basis on policies that have Tribal implications, including regulations, legislative comments or proposed legislation, and other policy statements or actions that have substantial direct effects on one or more Indian Tribes, on the relationship between the Federal Government and Indian Tribes, or on the distribution of power and responsibilities between the Federal Government and Indian Tribes. NHTSA has assessed the impact of this rule on Indian tribes and determined that this rule does not have tribal implications that require consultation under Executive Order 13175.

Privacy Act

Petitions for review of the final rule will be placed in the docket. Anyone is able to search the electronic form of all documents 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 DOT Privacy Program | US Department of Transportation.[22] To see the list of DOT's systems of

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[22] *U.S. Department of Transp. Privacy Policy*, https://www.transportation.gov/privacy (last updated Oct. 10, 2025)

records notices, please visit https://www.transportation.gov/individuals/privacy/privacy-act-system-records-notices.

Regulation Identifier Number (RIN)

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 in April and October of each year. You may use the RIN contained in the heading at the beginning of this document to find this action in the Unified Agenda.

List of Subjects in 49 CFR Part 571

Buses, motor carriers, motor vehicles, motor vehicle safety.

Amended Regulatory Text

In consideration of the foregoing, NHTSA amends 49 CFR part 571 as follows:

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. Amend § 571.217a by:

a. Revising the definition of "Daylight opening" and adding the definition of "Latch attachment point" in S4;

b. Revising S5;

c. Revising the introductory text of S6.1.1;

d. Revising Figure 1 and Figure 2; and

e. Adding Figure 3.

The revisions and additions read as follows:

§ 571.217a Standard No. 217a; Anti-ejection glazing for bus portals; Mandatory applicability beginning October 30, 2027.

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S4. * * *

Daylight opening means, for openings on the side of the vehicle (other than a door opening), the locus of all points where a horizontal line, perpendicular to the vehicle longitudinal centerline, is tangent to the periphery of the opening. For openings on the roof of the vehicle, daylight opening means the locus of all points where a vertical line is tangent to the periphery of the opening. The periphery includes surfaces 100 millimeters (mm) inboard of the inside surface of the window glazing and 25 mm outboard of the outside surface of the window glazing. The periphery excludes the following: Any flexible gasket material or weather stripping used to create a waterproof seal between the glazing and the vehicle interior; grab handles used to facilitate occupant egress and ingress; a restraining barrier; and any part of a seat. An example of a daylight opening periphery is provided in Figure 3 for illustrative purposes only.

Latch attachment point means the center point of the latch's interface connecting the window and the bus structure when the window is closed, and the latch is in the locked position.

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S5. *Requirements*. When tested according to the procedures specified in S6 of this section and under the conditions specified in paragraph S7 of this section, each applicable bus shall meet the following requirements specified in this section. The requirements of this paragraph S5 do not apply to portals other than side and roof portals, and do not apply to a side or roof portal with a daylight opening whose minimum surface dimension measured through the center of its area is less than 279 mm.

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S6.1.1 *Edge impact.* Position the impactor face on the glazing adjacent to a latch attachment point such that, when viewed perpendicular to the glazing surface, the center of the impactor face plate is as close as practicable to the center of the latch attachment point with the impactor face plate either horizontal or vertical, whichever orientation provides the shortest distance between

the two centers, while maintaining at least a 25 mm ± 2 mm distance between the impactor face plate edge and the window frame. "Window frame" includes latches, handles, attachments, and any solid structures other than the glazing material or flexible gaskets. If the window does not have any latches (e.g., it is fully rubber bonded or glued), position the impactor as follows:

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Figure 1 to 49 CFR 571.217a – Guided Impactor

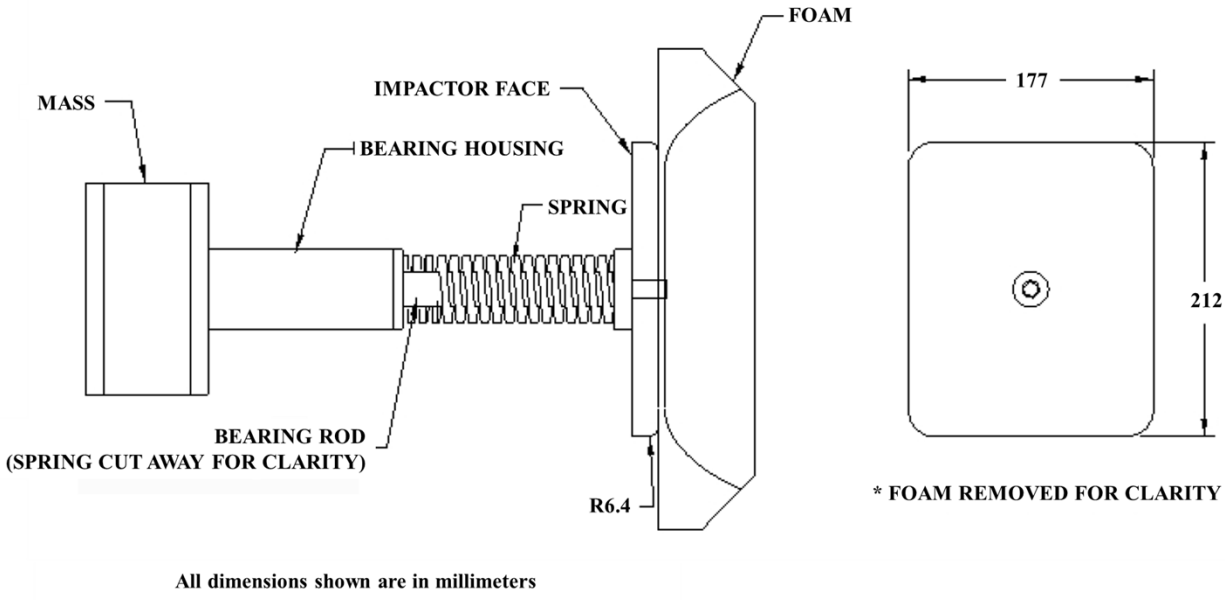


Figure 2 to 49 CFR 571.217a – Glazing break pattern

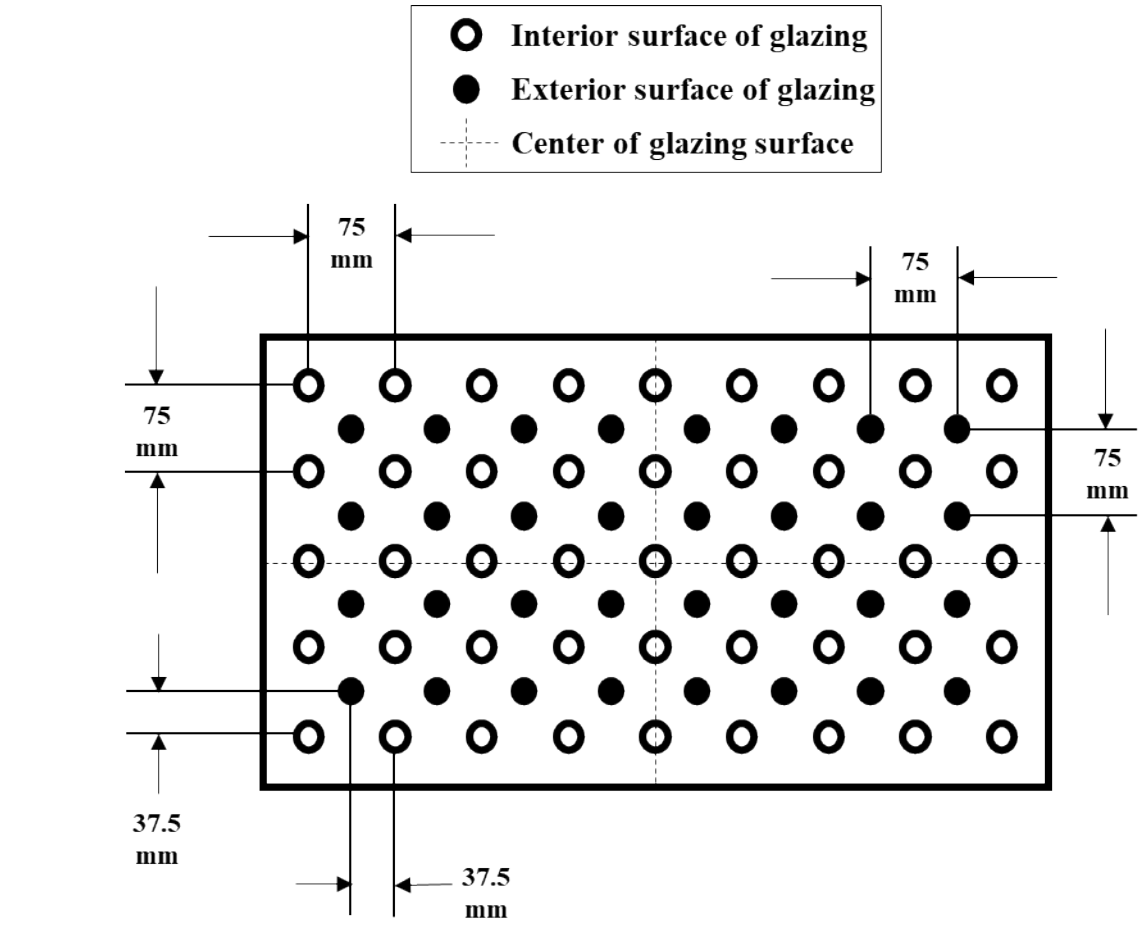
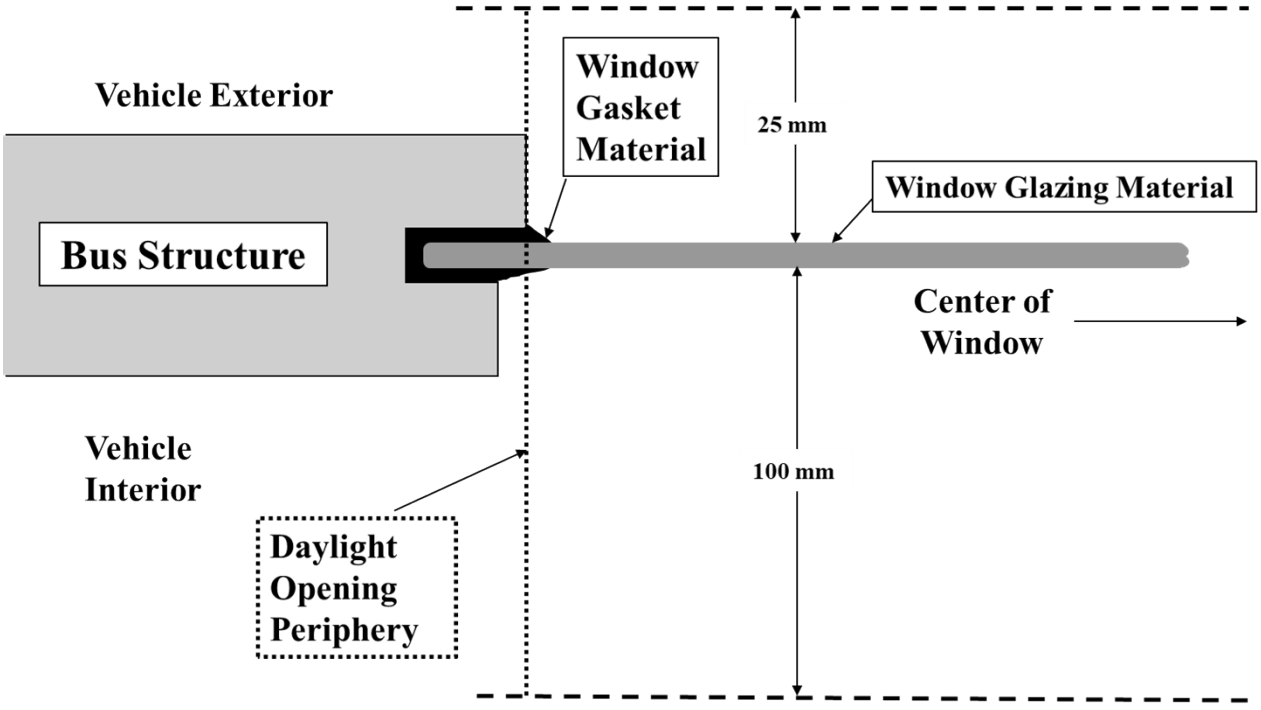


Figure 3 to 49 CFR 571.217a – An example of a daylight opening periphery (for illustrative purposes only)



Issued under authority delegated in 49 CFR 1.95.

Jonathan Morrison
Administrator

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