



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Motor Carrier Safety Administration**

**[Docket No. FMCSA-2018-0141]**

#### **Parts and Accessories Necessary for Safe Operation; Exemption Renewal for Stoneridge, Inc.**

**AGENCY:** Federal Motor Carrier Safety Administration (FMCSA), Department of Transportation (DOT).

**ACTION:** Notice of provisional renewal of exemption; request for comments.

**SUMMARY:** FMCSA announces its decision to provisionally renew Stoneridge, Inc.'s (Stoneridge) exemption, which will allow motor carriers to operate commercial motor vehicles (CMV) with the company's MirrorEye™ Camera Monitor System (CMS) installed as an alternative to the two rear-vision mirrors required by the Federal Motor Carrier Safety Regulations (FMCSRs). The exemption is renewed for 5 years, unless revoked earlier.

**DATES:** This renewed exemption is effective February 13, 2024, through February 12, 2029, unless revoked earlier. Comments must be received on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE **FEDERAL REGISTER**].

**ADDRESSES:** You may submit comments identified by docket number FMCSA-2018-0141 using any of the following methods:

- **Federal eRulemaking Portal:** Go to <https://www.regulations.gov/docket/FMCSA-2018-0141/document>. Follow the online instructions for submitting comments.
- **Mail:** Dockets Operations, U.S. Department of Transportation, 1200 New Jersey Avenue SE, West Building, Ground Floor, Washington, DC 20590-0001.

- **Hand Delivery or Courier:** Dockets Operations, U.S. Department of Transportation, 1200 New Jersey Avenue SE, West Building, Ground Floor, Washington, DC 20590-0001, between 9 a.m. and 5 p.m. ET, Monday through Friday, except Federal holidays.
- **Fax:** (202) 493-2251.

**FOR FURTHER INFORMATION CONTACT:** Mr. David Sutula, Chief, Vehicle and Roadside Operations Division, Office of Carrier, Driver, and Vehicle Safety, FMCSA, 1200 New Jersey Avenue SE, Washington, DC 20590-0001; (202) 366-9209; MCPSV@dot.gov. If you have questions on viewing or submitting material to the docket, call Dockets Operations at (202) 366-9826.

**SUPPLEMENTARY INFORMATION:**

**I. Public Participation and Request for Comments**

**A. Submitting Comments**

If you submit a comment, please include the docket number for this notice (FMCSA-2018-0141), indicate the specific section of this document to which the comment applies, and provide a reason for suggestions or recommendations. You may submit your comments and material online or by fax, mail, or hand delivery, but please use only one of these means. FMCSA recommends that you include your name and a mailing address, an email address, or a phone number in the body of your document so the Agency can contact you if it has questions regarding your submission.

To submit your comment online, go to <https://www.regulations.gov/docket/FMCSA-2018-0141/document>, click on this notice, click “Comment,” and type your comment into the text box on the following screen. Choose whether you are submitting your comment as an individual or on behalf of a third party and then submit.

If you submit your comments by mail or hand delivery, submit them in an unbound format, no larger than 8 1/2 by 11 inches, suitable for copying and electronic filing.

If you submit comments by mail and would like to know that they reached the facility, please enclose a stamped, self-addressed postcard or envelope.

FMCSA will consider all comments and material received during the comment period. Comments received after the comment closing date will be filed in the public docket and will be considered to the extent practicable.

### **Confidential Business Information (CBI)**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to the notice contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to the notice, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission that constitutes CBI as “PROPIN” to indicate it contains proprietary information. FMCSA will treat such marked submissions as confidential under the Freedom of Information Act, and they will not be placed in the public docket of the notice. Submissions containing CBI should be sent to Brian Dahlin, Chief, Regulatory Evaluation Division, Office of Policy, FMCSA, 1200 New Jersey Avenue SE, Washington, DC 20590-0001 or via email at [brian.g.dahlin@dot.gov](mailto:brian.g.dahlin@dot.gov). At this time, you need not send a duplicate hardcopy of your electronic CBI submissions to FMCSA headquarters. Any comments FMCSA receives not specifically designated as CBI will be placed in the public docket for this notice.

### **B. Viewing Comments and Documents**

To view any documents mentioned as being available in the docket, go to <https://www.regulations.gov/docket/FMCSA-2018-0141/document> and choose the document to review. To view comments, click this notice, then click “Browse Comments.” If you do not have access to the internet, you may view the docket online by visiting Dockets Operations on the ground floor of the DOT West Building, 1200 New Jersey Avenue SE, Washington, DC 20590-0001, between 9 a.m. and 5 p.m. ET, Monday through Friday, except Federal holidays. To be sure someone is there to help you, please call (202) 366-9317 or (202) 366-9826 before visiting Dockets Operations.

### **C. Privacy**

In accordance with 49 U.S.C. 31315(b)(6), DOT solicits comments from the public to better inform its exemption process. DOT posts these comments, including any personal information the commenter provides, to [www.regulations.gov](http://www.regulations.gov) as described in the system of records notice DOT/ALL 14 (Federal Docket Management System (FDMS)), which can be reviewed under the “Department Wide System of Records Notices” at <https://www.transportation.gov/individuals/privacy/privacy-act-system-records-notices>. The comments are posted without edit and are searchable by the name of the submitter.

## **II. Legal Basis**

FMCSA has authority under 49 U.S.C. 31136(e) and 31315(b)(2) and 49 CFR 381.300(b) to renew an exemption from the FMCSRs for subsequent 5-year periods if it finds that such exemption would likely maintain a level of safety that is equivalent to, or greater than, the level that would be achieved by the current regulation (49 CFR 381.305(a)). Stoneridge has requested a 5-year extension of its current exemption.

## **III. Background**

*Current Regulatory Requirements*

FMCSA requires in 49 CFR 393.80(a) that each bus, truck, and truck tractor be equipped with two rear-vision mirrors, one at each side. The mirrors must be positioned to reflect to the driver a view of the highway to the rear and the area along both sides of the CMV. Section 393.80(a) also requires that the National Highway Traffic Safety Administration's standard for mirrors on motor vehicles in Federal Motor Vehicle Safety Standard (FMVSS) No. 111 be met. Paragraph S7.1 of FMVSS No. 111 provides requirements for mirrors on multipurpose passenger vehicles and trucks with a gross vehicle weight rating (GVWR) greater than 4,536 kg and less than 11,340 kg and each bus, other than a school bus, with a GVWR of more than 4,536 kg. Paragraph S8.1 provides requirements for mirrors on multipurpose passenger vehicles and trucks with a GVWR of 11,340 kg or more.

*Original Exemption*

In its original exemption application, Stoneridge noted that the MirrorEye™ CMS consists of multiple digital cameras mounted on the exterior of the CMV and enclosed in an aerodynamic package that provides both environmental protection for the cameras and a mounting location for optimal visibility. Each camera has video processing software that presents a clear, high-definition image to the driver by means of a monitor mounted to each A-pillar of the CMV, i.e., the structural member between the windshield and door of the cab. Stoneridge explained that attaching the monitors to the A-pillars avoids the creation of incremental blind spots and eliminates the blind spots associated with conventional mirrors. Stoneridge stated that its MirrorEye™ CMS meets or exceeds the visibility requirements provided in FMVSS No. 111 based on several factors:

- *Greater field of view than conventional mirrors*—Mirrors are replaced by wide angle, narrow angle, and look-down cameras expanding the field of view by an estimated 25 percent.

- *Fail-safe design*—The MirrorEye™ CMS has independent video processing of multiple camera images so that in the unlikely event of an individual camera failure, the other camera images continue to be displayed. This ensures that real-time images are continuously displayed without interruption.
- *Augmented and enhanced vision quality*—The use of high-definition digital cameras provides for color night vision, low light sensitivity, and trailer panning capabilities. This assists with night driving and operating under other low lighting conditions and provides for glare reduction.
- *Trailer panning*—The MirrorEye™ CMS automatically tracks the end of the trailer to keep it in view while the vehicle is moving forward. Stoneridge stated this feature could eliminate collisions associated with the CMV driver making a right-hand turn and the CMV striking a pedestrian or bicyclist during the turn.

Stoneridge noted that the use of its MirrorEye™ CMS may help to reduce driver fatigue by requiring less head movement by drivers compared to the number of head movements needed to use conventional mirrors. Stoneridge noted further that use of its MirrorEye™ CMS provides improved fuel economy because the housing for the system is more aerodynamic than the conventional mirrors required by § 393.80(a).

On February 21, 2019, following notice and consideration of the comments received, FMCSA determined that use of Stoneridge's MirrorEye™ CMS would likely maintain a level of safety that is equivalent to or greater than the level of safety that would be obtained by complying with § 393.80(a) and granted Stoneridge's exemption request for a 5-year period (84 FR 5557). In its decision, FMCSA noted that the use of the MirrorEye™ CMS provides CMV drivers with an enhanced field of view when compared to the required rear-vision mirrors because (1) it eliminates the blind spots on both sides of the vehicle created by the required rear-vision mirrors, (2) the multi-camera system expands the field of view compared to the required rear-vision mirrors by an

estimated 25 percent, and (3) the trailer panning feature automatically tracks the end of the trailer to keep it in view in forward motion.

Additionally, FMCSA highlighted that the MirrorEye™ CMS uses high-definition cameras and monitors that include features such as color night vision, low light sensitivity, and light and glare reduction that together provide drivers with improved vision when compared to traditional rear-vision mirrors. FMCSA also noted that the MirrorEye™ CMS includes features such as self-cleaning lenses/cameras to eliminate problems with rain and dirt, a feature that is not required for traditional rear-vision mirrors, and an advanced defrosting system for winter driving. FMCSA did not find reason for concern about the possibility of electronic malfunctions compromising operation of the system or the possibility of increased driver distraction.

Finally, FMCSA noted that the FMCSRs impose several operational controls that will help ensure that the MirrorEye™ CMS is always functioning properly. Section 396.7 prohibits any vehicle from being operated in such a condition as to likely cause an accident or breakdown of the vehicle. Section 392.7(a) requires each CMV driver to satisfy themselves that a vehicle is in safe condition before operating the vehicle, which would include ensuring that the rear-vision mirrors (or in this case, the MirrorEye™ CMS) are in good working order. Similarly, § 396.13(a) requires that, before driving a vehicle, a driver must be satisfied that the vehicle is in safe operating condition. If the MirrorEye™ CMS (effectively functioning as the rear-vision mirrors) fails during operation, the driver must complete a driver vehicle inspection report at the completion of the workday as required by § 396.11 and the motor carrier must ensure that the defect is corrected.

#### *Application for Renewal of Exemption*

In its renewal application, Stoneridge reiterated the previous statements in support of its original exemption request. Stoneridge noted that since the 2019 exemption was

granted, the MirrorEye™ CMS has been installed on over 1,000 vehicles in North America, logging over an estimated 100 million miles with no reported incidents caused by the system. Stoneridge stated that a leading fleet recently conducted a controlled study comparing accident costs across 24 million miles driven with the MirrorEye™ CMS to 134 million miles driven without the system. The study showed approximately a 65 percent reduction in accident costs in the group using the MirrorEye™ CMS, including in key use cases such as lane change, left/right turning, and backing. Stoneridge also referenced a study by the German Federal Highway Research Institute that compared CMS with conventional exterior mirrors in a variety of conditions and generally concluded that CMS can provide views comparable to—and in some cases better than—conventional mirror systems.<sup>1</sup> Stoneridge reported that in Europe its MirrorEye™ CMS has been installed on over 1,110 buses and over 2,000 systems have been installed by commercial vehicle original equipment manufacturers. A copy of Stoneridge’s request to renew the exemption is available in the docket.

#### **IV. Equivalent Level of Safety Analysis**

FMCSA is not aware of any evidence showing that the operation of Stoneridge’s MirrorEye™ CMS in accordance with the conditions of the original exemption has resulted in any degradation in safety. Moreover, the information provided by Stoneridge in its application supports that Stoneridge’s MirrorEye™ CMS maintains the requisite statutory level of safety. Therefore, for the reasons discussed above and in the prior notice granting the original exemption request, FMCSA concludes that provisionally renewing the exemption granted on February 21, 2019, for a subsequent 5 years, on the terms and conditions set forth in this exemption renewal decision, would likely maintain

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<sup>1</sup> Schmidt, E. A., et al. “Camera-Monitor Systems as a Replacement for Exterior Mirrors in Cars and Trucks.” Federal Highway Research Institute (Germany), 2015.



a level of safety that is equivalent to, or greater than, the level of safety achieved without the exemption.

## **V. Exemption Decision**

### **A. Grant of Exemption**

FMCSA provisionally renews the exemption for a subsequent period of 5 years subject to the terms and conditions of this decision and the absence of adverse public comments that would cause the Agency to revoke the exemption. The exemption from the requirements of 49 CFR 393.80 is otherwise effective February 13, 2024, through February 12, 2029, 11:59 p.m. local time, unless revoked.

### **B. Applicability of Exemption**

During the temporary exemption period, motor carriers operating CMVs may install and use the Stoneridge MirrorEye™ CMS in lieu of the two rear-vision mirrors required by § 393.80.

### **C. Terms and Conditions**

1. This exemption is limited to the Stoneridge MirrorEye™ CMS installed on CMVs and does not apply to any other camera-based mirror replacement system/technology.
2. Drivers operating CMVs under this exemption must inspect the MirrorEye™ CMS each time before operating the CMV and be satisfied that it is in proper working order.
3. Drivers operating CMVs under this exemption must inspect the MirrorEye™ CMS at the end of each day and note any defects in the equipment on the driver vehicle inspection report. The motor carrier must repair any defects noted by the driver before it operates the CMV again.

4. The motor carrier must periodically inspect the MirrorEye™ CMS in addition to the existing inspection required at least once every 12 months.

**D. Preemption**

In accordance with 49 U.S.C. 31315(d), as implemented by 49 CFR 381.600, during the period this exemption is in effect, no State shall enforce any law or regulation that conflicts with or is inconsistent with this exemption with respect to a person operating under the exemption. States may, but are not required to, adopt the same exemption with respect to operations in intrastate commerce.

**E. Revocation**

The exemption will be valid for 5 years as provided in section V.A. above, unless revoked earlier by FMCSA. FMCSA does not believe that motor carriers, drivers, and CMVs covered by the exemption will experience any deterioration of their safety record. However, should this occur, FMCSA will take all steps necessary to protect the public interest, including revocation of the exemption without prior notice. The exemption will be immediately revoked if: (1) motor carriers, drivers, and/or CMVs fail to comply with the terms and conditions of the exemption; (2) the exemption has resulted in a lower level of safety than was maintained before it was granted; or (3) continuation of the exemption would not be consistent with the goals and objectives of 49 U.S.C. 31136 or chapter 313.

Interested parties possessing information that would demonstrate that this exemption or motor carriers operating CMVs utilizing the MirrorEye™ CMS installed as an alternative to two rear-vision mirrors are not achieving the requisite statutory level of safety should immediately notify FMCSA by email at *MCPSV@DOT.GOV*. The Agency will evaluate any such information and, if safety is being compromised or if the continuation of the exemption is not consistent with the goals and objectives of 49 U.S.C. 31136 or chapter 313, will take immediate steps to revoke the exemption.

**VI. Request for Comments**

In accordance with 49 U.S.C. 31315(b), FMCSA requests public comment from all interested persons on Stoneridge's application for renewal of its exemption from § 393.80. All comments received before the close of business on the comment closing date indicated at the beginning of this notice will be considered and will be available for examination in the docket at the location listed under the Addresses section of this notice. Comments received after the comment closing date will be filed in the public docket and will be considered to the extent practicable. In addition to late comments, FMCSA will also continue to file, in the public docket, relevant information that becomes available after the comment closing date. Interested persons should continue to examine the public docket for new material.

**Sue Lawless,**  
*Acting Deputy Administrator.*

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