



## DEPARTMENT OF TRANSPORTATION

### National Highway Traffic Safety Administration

[Docket No. NHTSA-2019-0103]

#### **Audi of America; Receipt of Petition for Temporary Exemption from FMVSS No. 111**

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

**ACTION:** Notice of receipt of petition for temporary exemption from FMVSS No. 111, “Rear Visibility”; Request for comment.

**SUMMARY:** In accordance with the procedures in 49 CFR Part 555, Audi of America (“Audi”) has petitioned NHTSA for a temporary exemption of vehicles from the requirements in FMVSS No. 111 that passenger cars, MPVs, and light trucks be equipped with an outside mirror on the driver’s side that meets certain field-of-view and mounting requirements. Instead of being equipped with FMVSS No. 111-compliant outside mirrors that would provide the required view to the rear, the vehicles, if exempted, would be equipped with a Camera Monitor System (CMS) that, according to Audi, provides the driver with a video-generated image on a monitor. Audi states that the video-generated image meets the standard’s field-of-view requirements that apply to outside mirrors on the driver’s side. Audi submitted its petition on the basis that an exemption is needed to facilitate the development and field evaluation of a new motor vehicle safety feature (the CMS) and that that feature provides a level of safety at least equal to the level of safety would be provided if the vehicle were equipped with FMVSS-compliant outside mirrors. NHTSA is publishing this document in accordance with statutory and administrative provisions, and requests comments on the petition. NHTSA has made no judgment on the merits of the petition.

**DATES:** Comments on this petition must be submitted by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**FOR FURTHER INFORMATION CONTACT:** Daniel Koblenz, Office of Chief Counsel, Telephone: 202-366-2992, Facsimile: 202-366-3820 or Markus Price, Office of Crash Avoidance Standards, Telephone: 202-366-1810, Facsimile: 202-493-2990. The mailing address for these officials is: National Highway Traffic Safety Administration, 1200 New Jersey Avenue S.E., Washington, DC 20590.

this document by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the online instructions for submitting comments.
- Mail: Docket Management Facility, M-30, U.S. Department of Transportation, West Building, Ground Floor, Rm. W12-140, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590.
- Hand Delivery or Courier: West Building, Ground Floor, Room W12-140, 1200 New Jersey Avenue, S.E., between 9 am and 5 pm Eastern Time, Monday through Friday, except Federal holidays.
- Fax: 202-493-2251.

Regardless of how you submit your comments, please mention the docket number of this document.

You may also call the Docket at 202-366-9826.

*Instructions:* For detailed instructions on submitting comments and additional information on the rulemaking process, see the Public Participation heading of the Supplementary Information section of this document. Note that all comments received will be

posted without change to <http://www.regulations.gov>, including any personal information provided.

*Privacy Act:* In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better 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*. In order to facilitate comment tracking and response, the agency encourages commenters to provide their name, or the name of their organization; however, submission of names is completely optional. Whether or not commenters identify themselves, all timely comments will be fully considered.

*Docket:* For access to the docket to read background documents or comments received, go to *www.regulations.gov*, or the street address listed above. Follow the online instructions for accessing the dockets.

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**I. Background**

**a. FMVSS No. 111 Outside Mirror Requirement**

Federal Motor Vehicle Safety Standard (FMVSS) No. 111, “Rear Visibility,” sets out requirements to ensure that passenger cars, Multipurpose Passenger Vehicles (MPVs), trucks, and buses, school buses, and low-speed vehicles provide drivers with “a clear and reasonably unobstructed view to the rear” of the vehicle. To this end, FMVSS No. 111, S5.2 requires that passenger cars must be equipped with an outside rearview mirror on the driver’s side. This mirror must provide the driver with a specified minimum field of view, be of unit magnification, and must be mounted according to certain specifications.<sup>1</sup> Similarly, FMVSS No. 111 S6 requires that MPVs, trucks, and buses (other than a school bus) with a Gross Vehicle Weight Rating of 4,536 kg or less be equipped with outside mirrors to provide rear visibility. Vehicles subject to S6 are required either to use “mirrors that conform to the requirements of S5,”<sup>2</sup> or to be equipped with mirrors on both sides of the vehicle which meet specified criteria for size and placement. Currently, FMVSS No. 111 does not permit compliance with either S5.2 or S6 through equipment other than “an outside mirror.”<sup>3</sup>

**b. Statutory Authority and Regulatory Requirements**

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<sup>1</sup> S5.2 requires that vehicles be equipped with a driver side outside mirror.

<sup>2</sup> Note that S5 includes both an inside (S5.1) and outside (S5.2) mirror requirement.

<sup>3</sup> NHTSA notes, however, that FMVSS does not prohibit the use of other technologies (such as cameras) alongside mirrors, so long as compliant required mirrors are present. NHTSA recently published an ANPRM seeking comment on whether the agency should consider amending FMVSS No. 111 to permit cameras as a compliance option in lieu of mirrors. See 84 FR 54533.

The National Traffic and Motor Vehicle Safety Act (Safety Act), codified as 49 U.S.C. Chapter 301, provides the Secretary of Transportation authority to exempt, on a temporary basis and under specified circumstances, motor vehicles from a motor vehicle safety standard or bumper standard, “on terms the Secretary considers appropriate.” This authority is set forth at 49 U.S.C. 30113. The Secretary has delegated the authority for implementing this section to NHTSA. 49 CFR Part 1.95.

The Safety Act authorizes the Secretary to grant a temporary exemption to a vehicle manufacturer if the Secretary makes certain findings. For this petition, the relevant findings that the Secretary must make are:

- (1) The exemption is consistent with the public interest and with the objectives of 49 U.S.C. chapters 301 (Motor Vehicle Safety) or 325 (Bumper Standards) (as applicable); and
- (2) The exemption “would facilitate the development or field evaluation of a new motor vehicle safety feature that provides a level of safety equivalent to that of the standard.”<sup>4</sup>

NHTSA established 49 CFR Part 555, Temporary Exemption from Motor Vehicle Safety and Bumper Standards, to implement the statutory provisions concerning temporary exemptions. The petition content requirements, specified in 49 CFR § 555.5, state that a petitioner must set forth the basis of the application by providing the required information under § 555.6, and the reasons why the exemption would be in the public interest and consistent with the objectives of 49 U.S.C. Chapter 301.

A petition under the basis that the exemption would facilitate the development or field evaluation of a new motor vehicle safety feature that provides a level of safety equivalent to that

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<sup>4</sup> 49 U.S.C. 30113(b)(3).

of the standard must include the information specified in 49 CFR 555.6(b). The main requirements of that section include: (1) a description of the safety or impact protection features, and research, development, and testing documentation establishing the innovational nature of such features; (2) an analysis establishing that the level of safety or impact protection of the feature is equivalent to or exceeds the level of safety or impact protection established in the standard(s) from which exemption is sought; (3) substantiation that a temporary exemption would facilitate the development or field evaluation of the vehicle; and (4) a statement of whether the Audi intends to conform to the standard at the end of the exemption period.

## **II. Summary of Petition**

In accordance with 49 U.S.C. § 30113 and the procedures in 49 CFR Part 555, Audi of America and its parent company, Audi AG (collectively, “Audi”)<sup>5</sup> submitted a petition to NHTSA (received August 7, 2018) requesting a temporary exemption from the driver’s side outside rearview mirror requirements in sections S5.2, S5.2.1, S5.2.2, and S6 of FMVSS No. 111. The vehicles for which Audi is requesting an exemption would be fully electric multipurpose passenger vehicles (MPVs). In lieu of mirrors, Audi states that the exempted vehicles would be equipped with a Camera Monitoring System (CMS) that provides the driver with the same field of view as a compliant outside rearview mirror. Audi requests a two-year exemption, during which it asks to be permitted to sell 2,500 exempted vehicles for each 12-month period covered by the exemption (up to 5,000 vehicles). Audi does not intend to make its vehicles compliant with FMVSS No. 111 by the end of the exemption period, but notes that it hopes that FMVSS No. 111 would be amended by then to permit CMS as a compliance option instead of outside rearview mirrors.

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<sup>5</sup> Audi of America is incorporated in Virginia, with its headquarters in Herndon, VA. Audi AG is incorporated in Germany, with its headquarters in Ingolstadt, Germany.

What follows is a summary of the information contained in Audi's petition. The petition itself is available for review in the docket for this notice. Audi's submission also included five additional supporting documents, which are cited as Attachments 1 through 5. While these supplemental documents are not independently summarized in this notice, they are available for review in the docket. Audi demonstrated the technology at NHTSA's headquarters on June 27, 2019 via an Audi e-tron model equipped with a CMS instead of outside mirrors, although NHTSA was told that the system shown in the demonstration had different specifications than the CMS that would be sold pursuant to an exemption. Because NHTSA had outstanding questions about the CMS that is the subject of Audi's exemption petition, NHTSA emailed Audi following this demonstration to request additional information. This information request and subsequent communications are also included in the docket, and the information that Audi provided is incorporated into this notice. Please note that this document is a notice of receipt which contains a description of Audi's petition, as well as some clarifying statements or questions from NHTSA. NHTSA has not yet made a final determination to grant or deny the petition.

**a. Recent CMS-related regulatory activities**

Audi begins by providing background on recent CMS-related regulatory activities in the United States. Audi explains that, in 2014, Tesla and the Alliance of Automobile Manufacturers jointly filed a rulemaking petition requesting that NHTSA amend FMVSS No. 111 to permit certification using CMS rather than outside rearview mirrors.<sup>6</sup> Audi states that, although NHTSA has not yet determined whether to amend FMVSS No. 111, an exemption to enable the

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<sup>6</sup> Audi provided a copy of the Alliance/Tesla petition for rulemaking with this exemption petition. The rulemaking petition, designated "Attachment 1," can be found in the docket for this rulemaking. We note that, although NHTSA has not officially acted on this petition, the agency did respond to the petition by submitting a letter containing a number of questions to Tesla and Alliance requesting additional information that the agency believed would be necessary to determine whether rulemaking would be appropriate. A copy of this letter can be found in the docket. As of the publication of this notice, NHTSA has not received a reply to these questions.

company to conduct the research and development needed to introduce a mass-market CMS should NHTSA eventually decide to propose such an amendment.

Audi then provides background on international regulatory actions relating to CMS, focusing specifically on the international adoption of United Nations Economic Commission for Europe (UN ECE) Regulation 46 (R46).<sup>7</sup> R46 is an international type-approval standard that covers “the approval of devices for indirect vision and of motor vehicles with regard to the installation of these devices.”<sup>8</sup> In 2016, R46 was revised to permit the use of either mirrors or CMS on most new vehicles to meet rear-view requirements. According to Audi, roughly 50 countries, including Japan, have adopted the amended R46, and permit the use of CMS in lieu of outside mirrors.<sup>9</sup> Audi also notes that Transport Canada requested comments on allowing camera-based rear visibility systems in October 2016. The petition states that Audi has received component-level type approval for the CMS, and is in the process of obtaining vehicle-level type approval by September 2018.<sup>10,11</sup> Audi notes that its CMS’s default view would meet the field-of-view requirements for Class III rear-view devices under ECE R46.<sup>12</sup>

## **b. Description of the CMS**

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<sup>7</sup> UN ECE R46 is a vehicle regulation established under the 1958 UN ECE Agreement Concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts (the “1958 Agreement”). The 1958 Agreement is an international agreement that provides procedures for establishing uniform regulations regarding new motor vehicles and motor vehicle equipment and for reciprocal acceptance of type-approvals issued under these regulations by contracting countries. While the United States is a member of the UN ECE, it is not a contracting party to the 1958 Agreement, and thus is not bound by standards established under the 1958 Agreement.

<sup>8</sup> See <https://www.unece.org/fileadmin/DAM/trans/main/wp29/wp29regs/2016/R046r6e.pdf>

<sup>9</sup> NHTSA has not taken a position on whether the amendments to ECE R46 that permit CMS provide a benefit to vehicle safety.

<sup>10</sup> Although the petition does not identify the country from which type approval is being sought, the test report the petition cites as documentation for type-approval appears to have been obtained from a laboratory based in Germany. For more information on the type-approval process, see [http://ec.europa.eu/growth/sectors/automotive/technical-harmonisation/faq-auto\\_en](http://ec.europa.eu/growth/sectors/automotive/technical-harmonisation/faq-auto_en).

<sup>11</sup> On October 30, 2018, NHTSA received from Audi supplemental documentation that it had received vehicle-level type approval for its CMS. The non-confidential portion of this documentation can be found in the docket.

<sup>12</sup> ECE R46, 15.2.4.3 states that a Class III mirror must provide a view of the road that is 4 meters wide when measured 20 meters back from the mirror, and 1 meter wide when measured 4 meters back from the mirror.



Audi states that the CMS that would be installed on exempted vehicles would use two externally mounted cameras, which would be located at the base of the driver-side and passenger-side A-pillars (at the approximate location that outside mirrors are typically installed on vehicles). The cameras capture an image with a resolution of 1289x1080 pixels, and a refresh rate of 60 frames per second (FPS). The cameras include pan and zoom functionality, and the cameras' exterior lenses are equipped with heaters and are coated with anti-stick material to minimize camera obstruction due to environmental contaminants like water, dirt, or ice.

Audi states that each camera feeds into a control unit that performs the processing for all CMS functions, including converting camera data into an image, displaying the image on screens inside the vehicle (along with other warnings and system information<sup>13</sup>), and carrying out self-diagnostics to ensure the system functions properly. The CMS transmits the camera image to displays that are located near the top forward corner of the door, which are aimed toward the driver. Each display provides the image from the camera on the corresponding side of the vehicle. The displays are approximately 7 inches wide, and provide a resolution of 1280x800 with a refresh rate of 60 FPS.<sup>14</sup> The displays use a capacitive touch system, which the driver can use to interact with and manipulate the CMS, such as by adjusting the image aim and level of zoom. Audi states that the CMS meets the requirements of UN ECE R46, provides additional safety and convenience features.<sup>15</sup>

Audi states in the petition that the CMS meets the FMVSS No. 111 field of view (FOV) requirements for outside mirrors when operating in its "default view." However, the petition did

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<sup>13</sup> Other functions include object detection, lane marking and warning, safe exit information, and blind spot detection.

<sup>14</sup> We note that the display resolution (1280x800) is lower than resolution of the image captured by the camera (1289x1080). The petition does not explain what effect (if any) this difference would have on the image displayed to the driver.

<sup>15</sup> Audi lists four additional safety features: Critical object detection, Marking and Warning, Safe Exit Information, and Blind Spot Detection. Audi does not provide information about the operation of these safety features.

not say whether the CMS image in the default view would be of “unit magnification” (i.e., not magnified), as is required under FMVSS No. 111, or whether the magnification level can be changed by the driver. In addition, the supporting documents that Audi submitted with the petition described three view modes other than the default view, which Audi calls Turnview, Parkview, and Highway view.<sup>16</sup> However, these other view modes are not discussed in the petition. Finally, the petition did not provide details on how the CMS detects and alerts the driver to camera obstructions.

To fill these information gaps, NHTSA sent Audi an email requesting additional information. Audi replied in an email sent August 1, 2019. In this email, Audi stated that the CMS’s default view shows an image of “unitary magnification (about 0.32) without a distortion.” We understand this to mean that the CMS image would be magnified such that the it would be approximately 1/3 the size of the image produced by a planar mirror that meets the unit magnification requirement of FMVSS No. 111. Audi also stated that it is not possible for drivers to adjust the CMS’s magnification manually. In addition, Audi provided details about the CMS’s other view modes, which are summarized in the below table:

<b>View Mode</b>	<b>Activation of View Mode</b>	<b>Deactivation of View Mode</b>	<b>Audi’s Description of View</b>
<b>Turnview</b>	Actuation of the turn signal operating unit.	Cancellation of the turn signal operating unit.	An aspherical zone with an enlarged field of view on the outer side of the view. Audi says this reduces the size of the blind spot.
<b>Parkview</b>	Switching to the “reverse” gear with vehicle speed less than 10 km/h.	Switching out of the “reverse” gear, or if the vehicle speed exceeds 10km/h.	An aspherical zone with an enlarged field of view on the lower side of the view. Audi says this view

<sup>16</sup> These views are described in the supporting document titled “Attachment 3,” which can be found in the docket for this petition.

			reduces the size of the blind spot for parking maneuvering.
<b>Highwayview</b>	The vehicle's navigation system indicates that the vehicle is on a highway, and vehicle speed is greater than 80 km/h.	The vehicle speed drops below 70 km/h, or the vehicle's navigation system indicates the vehicle has left the highway.	A smaller field of view that is magnified so that objects appear 2% larger. Audi says this enables better detection of fast-approaching vehicles on highways.

Regarding camera obstruction, Audi stated that the CMS uses continuously active video analytics to detect dirt. Audi also stated that the camera is equipped with a heater to clear obstructions, and if that does not work, the system provides the driver with a message in the instrument cluster that the camera needs to be cleaned.

The CMS is described in further detail in the petition and accompanying support documents, including NHTSA's email exchange with Audi. These documents are all available in the docket indicated in the header of this notice.

**c. Documentation Establishing Innovative Nature of the CMS**

Audi provides information about three separate research efforts that Audi argues establish the innovative and safety-improving nature of CMS. Audi first discusses a 2015 study conducted by the German Federal Highway Research Institute (BASt), which Audi states investigated both technical and human-machine interface issues relating to CMS.<sup>17</sup> Audi states that this study concluded (among other things) that it is possible for a CMS to provide a “quality” rear view to the driver. Audi next summarizes a 2017 study that it jointly conducted

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<sup>17</sup> The Final Report on this study published by BASt can be found in the docket for this petition. (“Attachment 4”)

with Spiegel Institut Mannheim<sup>18</sup> that examined the performance and user acceptability of CMS as compared to rearview mirrors by having study participants use a CMS in a variety of scenarios, both moving and stationary.<sup>19</sup> According to Audi, this study found that, while some participants initially expressed skepticism towards CMS, once the participants became familiar with the system, they found it performed comparably or better than conventional mirrors.

Lastly, Audi describes a Naturalistic Driving Study (NDS) that is currently being conducted in the United States by the Virginia Tech Transportation Institute (VTTI), in which five vehicle manufacturers (including Volkswagen Group, of which Audi is a part) and two “Tier One” suppliers are participating. Audi explains that this study will compare the performance and acceptance of CMS to that of rearview mirrors, but states that the research is ongoing and the results are not yet available.

In addition to these research projects, Audi also states that the CMS that would be equipped on exempted vehicles incorporates qualitative feedback that Audi obtained from NHTSA regarding an earlier version of its CMS.<sup>20</sup>

**d. Audi Claims that the CMS Provides a Level of Safety At least Equivalent to the Level of Safety established by Compliance with FMVSS No. 111, and is in the Public Interest**

According to Audi, exempted vehicles would have an equivalent level of safety to those that comply with FMVSS No. 111 because the CMS with which they would be equipped provides the driver with a view of the vehicle rear that is “as good, if not better” than the view available using traditional mirrors. The petition specifically notes that the CMS meets the field-

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<sup>18</sup> Spiegel Institut Mannheim is a German research and consulting firm. See <https://www.spiegel-institut.de/en/about-us/who-we-are>.

<sup>19</sup> A presentation by Audi and Spiegel Institut Mannheim describing this study and its results can be found in the docket for this petition. (“Attachment 5”)

<sup>20</sup> NHTSA notes that the qualitative observations discussed in the petition were preliminary observations made by NHTSA researchers during an 8-week lease of a CMS-equipped Audi A4, and do not represent an official agency position on CMS generally or Audi’s proprietary CMS technology. NHTSA published a report of its findings, which include both positive and negative observations, in October 2018 (DOT HS 812 582).

of-view requirements for FMVSS No. 111-compliant outside rearview mirrors when in its default 35° field-of-view setting. Moreover, the CMS's field of view can be expanded to 43° at the driver's option.

As further evidence that the CMS would provide an equivalent level of safety to FMVSS No. 111-compliant outside mirrors, Audi states that its CMS meets the requirements of UN ECE R46, and that the CMS is designed to withstand 15 years of environmental exposure to wind, moisture, dirt, and other obstructions. Moreover, Audi states that the CMS includes features that mitigate possible lens obstructions, including a heated camera lens, and the use of a camera with a focus point well beyond the lens, which enables the lens to "look past" certain obstructions. Audi also states that, if an obstruction is sufficiently severe, the CMS will alert the driver to clear the obstruction from the camera. However, Audi does not provide details of how this obstruction detection system would work (alert threshold, detection reliability, etc.).

The petition notes that the three CMS studies that are cited (including the ongoing VTTI study) "do not reveal a significant safety risk associated with CMS." Moreover, the petition states that Volkswagen sold 250 vehicles equipped with a CMS in 2013 in Germany and Austria pursuant to an exemption to Europe's standards. According to the petition, the customer feedback received was positive, with customers finding that, once they were familiar with the CMS, they found the system to be as good or better than rearview mirrors.

The petition also states that the CMS provides environmental benefits due to its lower weight and improved aerodynamics as compared to rearview mirrors. According to the petition, exempted vehicles equipped with a CMS would have an additional 1.5% battery range, or a 1 gram per kilometer decrease in CO<sub>2</sub> emissions, as compared to non-exempt vehicles with rearview mirrors. In addition, the petition notes that the CMS is included with additional

features that provide safety information to the driver, including critical object detection, marking and warning, safe exit information, and blind-spot detection.<sup>21</sup> According to the petition, these features would enhance the safety of exempted vehicles to beyond what is required under the FMVSS.

**e. Substantiation that an Exemption Would Facilitate Audi's Development and Field Evaluation of the CMS**

Audi states that an exemption is necessary for the company to conduct a field evaluation of its CMS, through which it will obtain data on customer acceptance and system performance in situations unique to the US market. To accomplish this research, Audi states that it intends to collect feedback from purchasers of exempted vehicles throughout the duration of the exemption period. This feedback would be collected through a survey given to customers when they bring the vehicle in for service, as well as through Audi's customer care center.

**III. Requests for Comment**

NHTSA seeks comment on the information and analysis in Audi's petition. In particular, NHTSA is interested in the issues raised in the following questions:

1. Does the public agree with Audi's safety analysis generally?
2. Does Audi's petition provide sufficient information on the operation of Audi's CMS to enable NHTSA to make the findings required by statute to grant an exemption? If not, what additional information should the Audi provide, and why?
3. We seek comment on the safety impact of the CMS image being magnified by 0.32 times, as compared to a non-magnified image that would be produced by a compliant unit magnification mirror.

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<sup>21</sup> We note that the performance specifications of these features are not included in the petition.

4. While the CMS's Turnview, Parkview, and Highwayview modes may provide the safety benefits that Audi cites in its petition, it is also possible that the switch to these alternative view modes could have negative impacts on safety, such as driver disorientation. Should the agency consider placing any restrictions on the use of these alternative view modes as a condition of granting the petition? If so, what should those conditions be, and what is the basis for those conditions?
5. Are there data on the likelihood that some drivers may find that they are unable to use the CMS, but will not know this at the time of sale? Should NHTSA require that exempted vehicles include a warning label to inform potential customers of this possibility?
6. The field of view defined by S5.2.1 of FMVSS No. 111 for driver's side outside mirrors differs from the field of view defined by ECE R46 for Class III mirrors (Class III is the mirror class for which Audi's CMS has received type approval according to the documents submitted with the petition).<sup>22</sup> In view of these differences, what weight should NHTSA give Audi's statement that the CMS complies with R46? Relatedly, what are the testing situations unique to the US market to which the petition refers?
7. How and to what extent should NHTSA consider in its safety analysis the inclusion of safety features that provide the driver with non-visual information about the driving environment (e.g., blind spot detection)?
8. How should NHTSA consider the incomplete VTTI study cited in the petition, especially given that the study has not yet produced results?

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<sup>22</sup> FMVSS 111, S5.2 .1 states that passenger car mirrors must provide a view of the road that is 2.4 meters wide when measured 10.7 meters behind the mirror. ECE R46, 15.2.4.3 states that a Class III mirror must provide a view of the road that is 4 meters wide when measured 20 meters back from the mirror, and 1 meter wide when measured 4 meters back from the mirror. Overall, these differences mean that the required field of view for the driver's side mirror under FMVSS 111 is narrower than the required field of view for a driver's side Class III mirror under ECE R46 when measured close to the mirror, but wider than ECE R46 when measured further back from the mirror.

9. To inform possible future rulemaking activities in this area to permit CMS on all vehicles in place of mirrors, if NHTSA were to grant Audi an exemption, should the agency condition the exemption on submitting reports on the on-road experiences of Audi's vehicles? If so, what information should Audi be required to report?

#### **IV. Comment Period**

The agency has not made any judgment on the merits of the petition, and is placing a copy of the petition and supporting information in the docket.

The agency seeks comment from the public on the merits of Audi's petition for a temporary exemption from paragraphs FMVSS No. 111, "Rear Visibility". We are providing a 30-day comment period. After considering the petition, the public comments and other available information, we will publish a notice of final action on the petition in the **Federal Register**.

Issued in Washington, D.C., under authority delegated in 49 CFR 1.95 and 501.4.

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James Clayton Owens  
Acting Administrator

Billing Code: 4910-59-P

[FR Doc. 2019-22769 Filed: 10/17/2019 8:45 am; Publication Date: 10/18/2019]