




U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

Memorandum

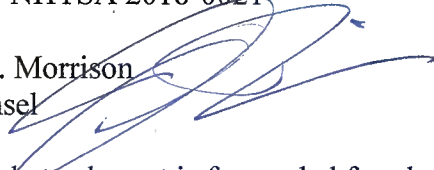
Subject: **ACTION:** Docket Agency Correspondence,
Examination of a Prototype Camera Monitor System For Light
Vehicle Outside Mirror Replacement – DOT HS 812 582

Date: OCT 02 2019

From: R. Ryan Posten 
Associate Administrator
for Rulemaking

Reply to
Attn. Of: NRM-210

To: Docket No. NHTSA 2018-0021

Thru: Jonathan C. Morrison 
Chief Counsel

The enclosed attachment is forwarded for placement in Docket NHTSA-2018-0021 Camera Monitor Systems. The docket contains documents relating to the advance notice of proposed rulemaking (ANPRM) about the feasibility of using camera monitor systems (CMS) as an alternative to rearview mirrors under Federal motor vehicle safety standard (FMVSS) No. 111, "Rear Visibility". The attached report was developed by NHTSA and published in 2018. The report examined a prototype CMS used in lieu of outside rearview mirrors on a light vehicle as it relates to current FMVSS No.111 requirements and existing and pending European standards.

Researchers found that the CMS exceeded the field of view (FOV) requirements of FMVSS No. 111, but the larger FOV presented on an area similar to a standard mirror caused the objects to appear smaller and more difficult to discern. During clear daytime driving, CMS presented a clear image, comparable to that of outside rearview mirrors, with minimal sunlight glare and improved visibility over mirrors in dusk and dawn conditions. The CMS exhibited some performance issues during night and rainy conditions. Specifically, excessive blooming and lens flaring from headlights of other traffic, and lens obscuration from water droplets remaining on the camera lens while driving.

Should you have any questions, please contact Andrei Denes by telephone at 202-366-9544.

Attachment

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