Automotive Safety Council

Prevent Protect Notify

November 6, 2019

Docket Management Facility
U.S. Department of Transportation
1200 New Jersey Avenue SE
West Building Ground Floor
Room W12-140
Washington, DC 20590-0001

[Docket No. NHTSA–2018–0021]
RIN 2127–AM02
Federal Motor Vehicle Safety Standard
No. 111, Rear Visibility

Subject: Advance notice of proposed rulemaking (ANPRM) for FMVSS 111.

The Automotive Safety Council (ASC) is an industry trade association of 48 of the world's leading suppliers of Autonomous, Crash Avoidance and Occupant Protection automotive safety systems to the automobile industry. The mission of the Automotive Safety Council is to improve the safety of people through-out the world through the development, production and implementation of the latest automotive safety equipment by preventing accidents, protecting occupants and pedestrians when in a collision and to notify emergency responders after the collision when necessary.

The ASC is providing comments to the recently published document requesting comments pertaining to FMVSS 111. The ASC appreciates the opportunity to comment on this topic.

General Comments:

The ASC commends the agency for embracing new technologies and seeing where they may improve the functionality of new vehicles for the improved safety of the public.

Specific Comments:

8. The agency seeks comment on what disruptive display aberrations (blooming, etc.) should be addressed if the agency were to develop a CMS performance standard. To what extent do existing CMS regulations (e.g., ISO 16505/UNECE R46) provide objective, and repeatable performance test procedures to evaluate display aberrations? What new procedures, if any, would be needed to evaluate display aberrations appropriately and what has been done to develop such procedures?

Comment:
Automated compression of bright areas and minimization of flare would help to address display aberrations related to blooming.

17. NHTSA seeks comment on whether and, if so, how a CMS can be weatherproofed to prevent condensation, or large water droplets, forming inside the camera enclosure, which could reduce image clarity. NHTSA has observed condensation in cameras mounted on the underside of outside rearview mirrors of recent model year production vehicles resulting in part of the camera view being unusable (e.g., the water blocks a portion of the camera's field of view). How should adequate weatherproofing be defined? Would the durability tests in FVMSS No. 111, S14.3 for backup cameras be sufficient, and if so, why? What other test procedures exist for demonstrating adequate weatherproofing of cameras, and have those procedures been validated?

Comment:
The ASC recommends NHTSA consider ISO 20653 level IP6K9K as the standard of protection for weatherproofing purposes.

18. Depending on the mounting location, cameras may be subject to environmentally-caused lens obstructions (e.g., dirt, ice, rain drops). NHTSA seeks comment on how to prevent or mitigate such lens obstructions. What performance requirements and associated test procedures simulating these conditions have been developed to evaluate whether the camera is providing a useful image?

Comment:
The ASC suggests that a lens heater and cleaner subsystem can be used to mitigate lens obstruction, with SAEJ942 and SAEJ2111 standards used as possible requirements.

System Availability When Vehicle Ignition Is Off

18. Although it is not one of the primary safety purpose of rearview mirrors, drivers often use the outside rearview mirrors after turning off the ignition and preparing to exit the vehicle to determine whether it is safe to open the vehicle door when parked alongside a traffic lane. The agency seeks comment on whether NHTSA consider requiring that a CMS be capable of serving this function by being operational in some capacity either at all times or for a specified period of time after opening the driver's car door. What new performance criteria would need to be developed for this purpose and what has been done to develop those criteria?

Comment:
The ASC suggests that CMS systems should be activated when it is clear that the vehicle will be entered (unlock, door open) by a driver / front seat occupant, and remain engaged until after the drivers' side door is opened with the vehicle ignition turned off at the end of a journey.

In conclusion, the ASC welcomes this opportunity to comment on the potential FMVSS 111 improvements. We welcome any invitation to visit the NHTSA office for a detailed discussion of these comments should the need arise.

Sincerely,

Douglas P. Campbell
President
Automotive Safety Council