

### Standard No. 107's Background

Standard No. 107 specifies reflecting surface requirements for certain "bright metal" components in the driver's forward field of view. The components are the windshield wiper arms and blades, inside windshield mouldings, horn ring and hub of the steering wheel assembly, and the inside rearview mirror frame and mounting bracket. The standard requires that the specular gloss of the surface of materials used in the components must not exceed 40 units when tested. ("Specular gloss" refers to the amount of light reflected from a test specimen.) The purpose of the standard is to reduce the likelihood that glare from the regulated components will distract drivers or interfere with their ability to view the driving environment ahead.

### Previous Review of Need for Standard No. 107

In a rulemaking during the late 1980's, NHTSA considered and ultimately rejected the possibility of extending Standard No. 107's specular gloss limitations to non-metallic surfaces. The issues raised in that rulemaking are relevant to the issue of whether Standard No. 107 should be rescinded.

In the NPRM proposing to extend Standard No. 107 to non-metallic surfaces, NHTSA considered three issues: (1) Whether there were safety benefits in retaining Standard No. 107; (2) whether there is justification to apply the specular gloss requirement to non-metallic versions of the components already covered by Standard No. 107; and (3) whether there is a need to expand Standard No. 107 to apply to other component parts (such as instrument panel pads). (November 13, 1987, 52 FR 43628).

Addressing the first issue, NHTSA noted Standard No. 107 was issued because the agency believed that the reflection of sun and bright lights off metallic components into the driver's eyes presented a potential safety problem which could be reduced by limiting the specular gloss of those items. Since a driver could still experience glare from sunlight and other bright lights, NHTSA concluded that Standard No. 107's limits on highly reflective components (i.e., possible sources of glare) still addressed a safety problem for drivers.

Addressing the second issue, NHTSA proposed to expand the coverage of the Standard by eliminating the limitation to "metal" components. NHTSA tentatively concluded that the safety problem posed by glossy metallic

components was indistinguishable from the problem posed by glossy non-metallic components. NHTSA proposed to extend the standard despite a manufacturer's comment that any material used for new components would not be highly reflective. The manufacturer stated its belief that surfaces in the driver's forward field of view in modern automobiles are seldom constructed of glossy components because bright finishes are "incompatible with the new trends of matte-finish componentry and trim \* \* \*"

Addressing the third issue, NHTSA declined to propose extending Standard No. 107 to other vehicle components since it found no data showing that glare from unregulated components presents a safety problem. NHTSA also stated its belief that the absence of data showing that glare from unregulated components has presented a safety problem indicates that Standard No. 107 has correctly identified the components that are most likely to be the sources of hazardous glare.

In 1989, NHTSA terminated the rulemaking because there was no substantiation that there was a safety problem with glare from non-metallic surfaces (54 FR 35011, August 23, 1989). NHTSA concluded that because of the apparently insignificant nature of the safety problem (from reflected glare off non-metallic parts), and the costs of implementing the more expensive and complex test procedure necessary for non-metallic vehicle parts and materials, extending Standard No. 107 was not appropriate.

In 1991, NHTSA was petitioned by the Center for Auto Safety to include the instrument panel surface as one of the regulated items in Standard No. 107. The Center believed that such an action would "significantly limit dashboard reflections in windshields", and limit "veiling glare" as a "major source of vision impairment." NHTSA denied this petition (see 56 FR 40853, August 16, 1991), after determining that there was no visibility problem which warranted Federal rulemaking. The agency could find no information showing that such dashboard reflections constituted a safety hazard. At the time, a search of the NHTSA consumer complaint file found only 23 complaints that were related to light reflections from the dashboard in over 138,000 complaints (0.017 percent). In only one of those was there a possibility that the reflections may have contributed to an accident.

In 1995, an updated search of the current file found 52 complaints that were related to dashboard glare in over 241,000 complaints (0.021 percent). In

only one of these was there a possibility that the reflections contributed to accidents. The insignificant change in the number of complaints reinforces the agency's prior determinations that there is no need to expand the scope of Standard No. 107.

### Market Forces and Product Liability Concerns Have Eliminated the Need for Standard No. 107

NHTSA believes that market forces continue to favor matte finishes and surfaces for components in the driver's field of view, and are reinforced by product liability concerns. Evidence of the impacts of these factors may be found in the virtual disappearance of horn rings and metallic inside windshield mountings and in the use of matte finishes on unregulated components. The agency also notes that nonmetallic materials are typically lighter weight than metallic ones.

As a result of the use of matte finishes on regulated components in the driver's field of view, glare from those components has been substantially reduced. Increased use of matte-finished, non-metallic materials (hard plastic or rubber) for parts such as windshield wiper arms and blades, steering wheel assembly hubs, and inside rearview mirror frame and mounting brackets, mean fewer vehicle components must meet Standard No. 107.

The decreasing tendency to use metal is also evident with respect to components not regulated by Standard No. 107. Since 1987, vehicle interior styling practices have favored a combination of hard plastic and padded faux leather, materials that do not reflect sufficient light to create glare. NHTSA believes that market forces will continue to favor matte finishes in the future.

### NHTSA's Authority Over Safety Related Defects

Although NHTSA believes future market forces will favor matte finishes, it is possible that motor vehicle designs, styles, and preferred materials will change. If such changes should result in motor vehicle components that may produce distracting glare in the driver's line of sight, NHTSA intends to review the situation through its statutory authority over safety related defects in motor vehicles and motor vehicle equipment.

### Proposed Effective Date

Because the proposed removal of Standard No. 107 would relieve restrictions without compromising safety, the agency tentatively has determined that there is good cause for