

3. Shearography Analysis

The agency solicited comments on the use of shearography analysis for post-test tire inspection purposes. Commenters, except for the consumer groups, generally believe that shearography is a beneficial laboratory research tool but is not sufficiently developed to use to determine pass/fail criteria for a regulation. According to the Alliance, correlations between physical indications of possible tire structural degradation observed by means of shearography and subsequent tire failures have not been validated to the level of certainty that is requisite to establish pass/fail criteria in a FMVSS. RMA stated that the technology requires a very highly skilled operator/interpreter and that even the slightest degree of incipient belt separation in the tire at the conclusion of the tests does not mean imminent tire failure under on-the-road usage that would require interpretation which may vary and may be highly subjective. PC and CU argue that visual inspection is inadequate and that shearography could be used to supplement visual inspection to ensure that interior tire damage does not go undetected.

Based on the comments and the agency's understanding of shearography analysis, NHTSA agrees with the tire and vehicle manufacturers that shearography analysis is not sufficiently developed enough at present to be used to distinguish pass/fail criteria in our performance tests. Therefore, the agency is not adopting shearography analysis for any post-test inspection, but will continue utilizing it in conjunction with its tire research and may pursue it as an inspection method for tires in its regulatory regime at some future time.

4. Revision of UTQG

The agency solicited comments on whether, based on the proposed high speed test speed steps, there is a need to revise the grades and testing speeds specified in the UTQG Temperature Grading Requirement.

RMA supports no revision to the UTQGS scope and testing conditions at present. ETRTO suggested that the UTQG rating is useless since tires are labeled with the Speed Symbol, which indicates a tire's capability to resist high temperatures. Public Citizen urged the agency to retain the UTQG ratings instead of replacing it with the speed rating system because the speed rating system does not address a tire's treadwear and traction capabilities.

The agency appreciates that range and diversity of comments received in response to the request for comments on

this issue in the NPRM. The agency will take these comments and the issues contained therein into consideration if and when we address the effectiveness of the temperature grading, specifically, and/or the entire UTQGS, more generally, in a future rulemaking.

5. Analysis of Responses to Agency Questions in NPRM

The agency presented the following italicized questions for public comment in the NPRM.

Are there any voluntary consensus standards or requirements of other countries or regions which address the issues raised in this NPRM?

The Alliance, ETRTO, RMA, GRRF, and Center for Regulatory Effectiveness (CRE) advocate the adoption of an ECE R30 type test, such as GTS-2000 or proposed GTR. The RMA and CRE have asked that NHTSA reconsider its decision to propose a government-unique standard in light of its obligations under the Technology Transfer Act and OMB Circular A-119. More specifically, the CRE asked NHTSA to consider the following voluntary consensus standards—ISO 10191, SAE J1561, and SAE J1633/ISO 10454.

In the NPRM, NHTSA stated the following:

G. National Technology Transfer and Advancement Act

Under the National Technology and Transfer and Advancement Act of 1995 (NTTAA) (Pub. L. 104-113), "all Federal agencies and departments shall use technical standards that are developed or adopted by voluntary consensus standards bodies, using such technical standards as a means to carry out policy objectives or activities determined by the agencies and departments." Certain technical standards developed by the Society of Automotive Engineers (SAE) and other bodies have been incorporated into this proposal but the overall need for safety precludes, in NHTSA's view, the adoption of such voluntary standards as a substitute for this proposal for several reasons. First, no one voluntary standard contains all six of the proposed test procedures and requirements in this proposal. Second, voluntary consensus standards do not exist for several of the test procedures and requirements in the agency's proposal. Third, while the testing conditions and procedures of some voluntary standard have been incorporated by reference into the agency's proposal, the specified performance requirements of the voluntary standards are either different than those specified in our proposal or are non-existent.

Under the NTTAA and OMB Circular A-119, NHTSA is required to consider the adoption of standards developed by a voluntary consensus body. To be considered such a voluntary consensus

standards body under the NTTAA, a body must be a *private* sector one. The agency considered two standards developed by such a body, SAE: The SAE J1981 Road Hazard Test and the SAE J1561 high speed test. The SAE J1561 high speed test is based on a speed rating methodology similar to GTS-2000, proposed/model GTR, and ECE R30. Similarly, SAE J1633/ISO 10454 is the LT tire version of the SAE J1561 test that uses the same test methodology as the SAE J1561 tests to establish test speeds.³⁷ The ISO 10191 test is merely a combination of current FMVSS No. 109 and ECE R30. More specifically, it includes the endurance test, bead unseating, and strength tests from FMVSS No. 109 and the high speed test from ECE R30. Therefore, it is no more stringent than the current FMVSS No. 109 tests and the ECE R30 tests, both of which are discussed in section VI.C. of this document. The rationale for why we have not adopted the voluntary consensus standards suggested by CRE is stated above in section VI.C. Although neither the ECE R30 high speed test, nor the proposed/model GTR and GTS-2000 high speed tests were developed by voluntary consensus standards bodies, we did evaluate them when developing our proposal and adopting the final rule. The reasons we did not adopt these high speed tests and their methodology are set forth in section VI.C. Additionally, we are not adopting the SAE road hazard test for the reasons stated above in section VI.C.

Advocates suggests that the optional wet grip test being developed by WP.29 should be considered for the standard. The agency notes that this test was neither proposed nor discussed in the NPRM. Further, the agency has not analyzed crash data to see what, if any, safety benefits would accrue from a wet grip requirement.

The agency seeks comments on whether practicable and repeatable "real-world" testing procedures, conditions, specifications exist and whether they could be utilized as part of a minimum performance standard?

No comments were received suggesting "real-world" testing procedures, conditions, or specifications.

The agency seeks comments on the appropriateness of specifying the vehicle model year 1975 as a limitation

³⁷ The first two speed steps of SAE J1633/ISO 10454 utilize test speeds that are extremely low, 12 mph and 18 mph, and the final speed is the rated speed for 30 minutes. The inflation pressure utilized during the test is pressure at maximum load, which is typically the maximum inflation pressure of the tire.