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The Honorable Jeffrey William Runge, M.D.
Administrator
National Highway Traffic Safety Administration
U.S. Department of Transportation
400 Seventh Street, S.W.
Room 5220
Washington, DC 20590

NHTSA-
~~DOT~~-00-8011-5495

Dear Dr. Runge:

Enclosed please find the Center for Regulatory Effectiveness' analysis, "FMVSS No. 139 Proposed Performance Requirements Compliance with OMB and DOT Data Quality Guidelines: Necessary Steps." This paper, the third in a series of CRE analyses of the FMVSS No 139 rulemaking, examines compliance of the information in the rulemaking with DOT's Data Quality Guidelines. Analyzing compliance of regulatory proceedings with the various "Good Government" laws, including the Data Quality Act, the Technology Transfer Act and the Paperwork Reduction Act, is a key function of the CRE, a regulatory watchdog which provides oversight of public and private-sector regulatory actions.

Our first paper, "Cost Effectiveness of FMVSS No 139 Proposed Performance Requirement: A League Table Approach," compared the cost effectiveness of the proposed rule with other health and safety rules analyzed by OMB in the President's FY '03 Budget. CRE found that the proposed rule was substantially more expensive per life-year saved than any other rulemaking in the OMB analysis. The League Table paper demonstrated that NHTSA needs to find a more cost effective approach to fulfilling the TREAD Act's tire performance requirements mandate.

Our second paper, "The National Technology Transfer Act and FMVSS No. 139 Proposed Performance Requirements: Federal Requirements For the Use of Voluntary Standards," documented that NHTSA rulemaking did not comply with the requirements of the Technology Transfer Act and OMB Circular A-119. This paper demonstrated that NHTSA failed to meet the tests set by the Act and OMB Circular for adopting a government-unique standard in lieu of a domestic or international consensus standard in the rulemaking.

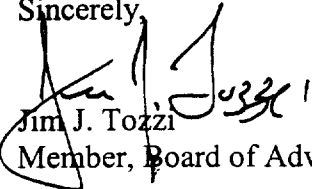
The attached paper demonstrates that the information in the tire performance requirements rulemaking does not comply with DOT's recently promulgated Data Quality Guidelines and, thus, a final rule based on this information would not pass the pre-dissemination review process required by the Guidelines. Furthermore, any information disseminated in violation of the Guidelines is subject to the

information correction provisions of the Data Quality Act and OMB and DOT Guidelines. Although there are serious Data Quality problems with the much of the information in the rulemaking, as is documented in the attached paper, I would call your attention to specific deficiencies with two of the proposed tests, the endurance test and the high speed test. These two tests are at the heart of the rulemaking and, according to NHTSA, responsible for virtually all of the consumer costs that would be imposed by the proposed rule.

NHTSA's Preliminary Economic Assessment (PEA), disseminated through the DOT's online Docket Management System, demonstrates that the endurance and high speed tests are unreliable, not repeatable and do not meet Data Quality standards. Specifically, with regard to the endurance test for p-metric tires, NHTSA testing documented in the PEA found that "4 of 8 tire brand/model failures were inconsistent with this [NHTSA's] theory [of how tires should perform in the endurance test]." With regard to the high speed for p-metric tires, NHTSA's testing found that only three of eight tire brand/model failures were consistent with their theory for how tires should perform in the test. Thus, although the agency blames variability in the tires themselves, the fact remains that the proposed NHTSA tests produce essentially random results.

Our conclusion is that NHTSA is going to have to make substantial changes in their proposed tire performance requirements in order to comply with the Data Quality Act and other good government laws. We will be reporting on our conclusions on our website, www.TheCRE.com. I would welcome the opportunity to discuss these issues with you in greater detail.

Sincerely,


Jim J. Tozzi
Member, Board of Advisors

Attachment

**FMVSS No. 139 PROPOSED PERFORMANCE REQUIREMENTS
COMPLIANCE WITH OMB AND DOT DATA QUALITY GUIDELINES:**

NECESSARY STEPS

December 2002

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FMVSS No. 139 PROPOSED PERFORMANCE REQUIREMENTS COMPLIANCE WITH OMB AND DOT DATA QUALITY GUIDELINES:

NECESSARY STEPS

I. Overview

On October 1st, 2002 the Department of Transportation's Data Quality Guidelines ("DOT Guidelines") became effective.¹ These guidelines, which implement OMB's Data Quality guidelines and the Data Quality Act, impose a number of substantive and procedural requirements on DOT and its agencies before they can disseminate most information, including proposed and final rules.²

On March 5, 2002, the National Highway Traffic Safety Administration ("NHTSA") issued a Notice of Proposed Rulemaking ("NPRM") to revise and update the agency's safety performance requirements for tires.³ The NPRM, and associated NHTSA documents in the docket, contain proposed testing procedures, economic impact conclusions and conclusions regarding the safety impact of the proposed regulation. This publicly disseminated information is now subject to quality standards contained in the DOT Guidelines since, as the Guidelines state, they apply to DOT-disseminated information, "regardless of when the information was first disseminated."⁴ More importantly, NHTSA intends that the rulemaking information form the basis for the final tire standards rule, which will need to comply with all Data Quality standards and procedural requirements.

This paper will detail the substantive and procedural steps NHTSA must take with regard to the information in the rulemaking to ensure that the final rule complies with OMB and DOT Guidelines. These steps are necessary since the Guidelines impose new requirements which became effective after the information in the NPRM was developed and published in the *Federal Register*. It should be noted that this document is not a petition for correction of information contained in the NPRM, instead it is designed as a helpful guide describing the steps that NHTSA needs to take to ensure that information in final tire performance standards is disseminated in compliance with the OMB and DOT Data Quality standards.

¹ "The Department of Transportation's Information Dissemination Quality Guidelines", p. 1.

² The DOT Guidelines explicitly state that they cover the information in rulemakings, p.5.

³ 67 FR 10050.

⁴ DOT Guidelines, p. 12.

II. About the CRE

The Center for Regulatory Effectiveness (“CRE”) is a regulatory watchdog providing public oversight of federal and private sector regulatory activities. In its watchdog capacity, CRE frequently analyzes the compliance of regulatory proceedings with the various “Good Government” laws including the Data Quality Act, the Paperwork Reduction Act, the National Technology Transfer and Advancement Act and the Regulatory Flexibility Act. With regard to the Data Quality Act, CRE was the leading proponent of the legislation⁵ and has participated extensively in the public process of developing government-wide and agency-specific implementing guidelines, including the DOT Guidelines.⁶ CRE is particularly interested in the tire performance standards rulemaking and other certain other TREAD Act-related regulations since they are among the first major information-intensive rules that will be promulgated after the Data Quality Act became effective. To this end, CRE is analyzing key TREAD Act rulemakings for compliance with the Data Quality Act and will be reporting on compliance issues on our website, www.TheCRE.com.

III. DOT’s Pre-Dissemination Review Process

DOT’s Guidelines specify a six step pre-dissemination review process.⁷ This paper will examine the information in the rulemaking in the context of DOT’s pre-dissemination review process to identify the steps the agency needs to take in order to comply with the DOT Guidelines. DOT’s pre-dissemination review policy is important since NHTSA’s final tire performance requirements rule will need to pass through this process. It is important to note that agency compliance with the Data Quality Act and implementing guidelines is not discretionary. As OMB noted in an attachment to a memo to the President’s Management Counsel on preparation of agency guidelines, “we ask that you do not include extraneous assertions that appear to suggest that the OMB and agency information quality standards are not statements of government-wide policy, i.e., government-wide quality standards which an agency is free to ignore based on unspecified circumstances. In addition, agencies should be aware that their statements regarding judicial enforceability might not be controlling in event of litigation.”⁸

⁵ *Federal Times*, “Nixon’s ‘Nerd’ Turns Regulations Watchdog,” November 11, 2002, p. 22, http://thecre.com/pdf/20021111_fedtimes-tozzi.pdf.

⁶ DOT Guidelines, p. 1.

⁷ *Ibid.*, pp. 19-20.

⁸ Office of Management and Budget, Office of Information and Regulatory Affairs, “OIRA Review of Information Quality Guidelines Drafted by Agencies,” p. 15.

A. Review and Consultation

Under the DOT Guidelines, NHTSA is required to, “allow adequate time for review” of the information to be disseminated and to “consult with others” including the public and other stakeholders that “have a substantial interest in the proposed dissemination of information.”⁹ NHTSA’s notice-and-comment process on the proposed rule took place before the DOT Guidelines were promulgated. Thus, NHTSA has not yet engaged in a Data Quality consultation process with the public and other stakeholders on the information in the rulemaking. Therefore, in order for the tire performance standards rulemaking to comply with Section VII. 1. of the DOT guidelines, NHTSA needs to publish for public comment a Federal Register notice discussing Data Quality compliance-related issues for the information in the rulemaking.

B. Compliance Verification

DOT’s pre-dissemination review process requires NHTSA to ensure that information intended for dissemination complies with the utility, objectivity, integrity and accessibility requirements in the guidelines as well as with any other DOT agency-specific guidance or procedures.¹⁰ With regard to the tire performance requirements rulemaking, the pre-dissemination review requirement means that the performance tests and related information disseminated by NHTSA, and which NHTSA will rely on when disseminating the final rule, needs to adhere to the Department’s Data Quality standards. Examples of information subject to the pre-dissemination review process include:

1. Estimate of Benefits and Costs

The NPRM states that although the agency “believes” that improving tires would be beneficial in reducing tire failures, “we do not have a good estimate of the extent to which the improvements will improve safety.”¹¹ NHTSA’s *Federal Register* notice also discusses the information limitations and other constraints which have, “made it difficult to assess and compare the benefits and costs of this rulemaking.”¹² NHTSA also states that, “The problem the agency has in estimating benefits is that while the agency knows intuitively that any improvement in how tires do in these tests will improve safety, it does not know how to translate the test improvement into real world benefits.”¹³

⁹ *Ibid.*, p. 19.

¹⁰ DOT Guidelines, p. 19.

¹¹ 67 FR 10052.

¹² *Ibid.*

¹³ NHTSA, Office of Regulatory Analysis and Evaluation Plans and Policy, “Preliminary Economic Assessment: FMVSS No. 139 Proposed New Pneumatic Tires for Light Vehicles,” October 2001, p. IV-7.

Despite the fact that the agency admits they do not have a good estimate of the benefits and costs, indeed admits that they do not know how to determine any actual benefit other than “intuitive” knowledge, NHTSA proceeds to undertake a statistical analysis to produce a benefits estimate. Although such low quality estimates may have been acceptable prior to the Data Quality Act and implementing guidelines, these estimates are not in compliance with statutory, OMB and DOT requirements. NHTSA’s estimates of benefits and costs are particularly important since the agency is using them to justify the agency’s decisions in a major rulemaking that, by NHTSA’s own estimate, will cost consumers almost \$300 million per year. Under the OMB and DOT guidelines, NHTSA will not be able to publish an estimate of the benefits or costs of the final rule until they develop such estimates in accordance with the OMB and DOT guidelines, including the detailed DOT guidelines that apply to statistical analyses.

2. NHTSA Use of FARS, NASS-CDC and State Data

The NPRM included an analysis of data from two DOT databases, the National Automotive Sampling System - Crashworthiness Data System (NASS-CDC) and the Fatality Accident Reporting System (FARS). NHTSA utilized this data for determining “whether heat is a factor in tire problems.”¹⁴ However, in a footnote, NHTSA also explained that the tire-related FARS data “does not indicate whether the tire problem caused the crash, influenced the severity of the crash, or just occurred during the crash.”¹⁵ Thus, NHTSA is drawing conclusions about the role of ambient temperature in causing tire failure from a database from which no causality conclusions can be drawn and which contains no temperature data. Such conclusions are a violation of the Department’s definition of “utility” since the FARS data is not useful to the public for assessing causal relationships regarding tire failure.

DOT’s detailed quality guidelines for statistical data contained Appendix A of the DOT Guidelines contain a number of detailed procedural requirements that NHTSA has not yet met for analyzing the FARS, NASS-CDC and State data. The DOT Data Quality analytic guidelines include the provision that “Data analysis for the relationship between two or more variables should include other related variables to assist in the interpretation.”¹⁶ The guidelines also explain that missing variables can lead to bias. With respect to the FARS data, this means that NHTSA needs to consider factors such as weather, traffic and tire maintenance before making conclusions regarding ambient temperature – particularly since the FARS database did not include any temperature data and NHTSA assumptions regarding temperature

¹⁴ 67 FR 10055.

¹⁵ 67 FR 10054, footnote 8.

¹⁶ DOT Guidelines, p. 1-30.

were crudely based on season and geography.¹⁷ Therefore, before NHTSA can disseminate conclusions based on FARS and NASS-CDC data, the agency needs to ensure that the data was collected and analyzed in accordance with the standards set in Appendix A of the DOT Guidelines.

3. NHTSA Tire Testing at STL

NHTSA undertook a tire testing program at Standards Testing Labs to evaluate three performance criteria for a “limited number” of tires. The DOT Guidelines require the use of “sound analytical techniques.” However, the rationale for the study design is not transparent nor do many of the conclusions possess utility. For example, for two of the tests, High Speed and Endurance, NHTSA ran baseline tests using the parameters taken from the GTS-2000 standard, one of the several standards submitted to the agency, and then performed additional tests with varying parameters. NHTSA did not explain why they used GTS-2000 as the baseline rather than other test standards known to the agency and discussed in the NPRM, or how and why the parameter variations were selected. In short, NHTSA has not provided sufficient transparency or other assurance that the testing was based on sound analytical techniques.

NHTSA’s conclusions regarding the STL testing also do not comply with Data Quality guidelines. For example, NHTSA stated that they concluded from the tests that the agency can “develop and propose test requirements that are realistic in terms of the test parameters, yet more stringent than current [NHTSA tests, European Standard, GTS-2000 and proposed RMA standard].”¹⁸ NHTSA’s conclusion lacks utility since it is not based on the tests conducted. Specifically, NHTSA never defined “realistic” parameters nor did the agency indicate, with the exception of a low pressure value, that the STL tests were in anyway associated with developing test parameters that mimicked real world conditions. Furthermore, NHTSA’s conclusion that they could develop and propose standards more stringent than any other standard is a simple truism unrelated to testing since virtually any standard can always be made more stringent. However, there is no useful information in this “conclusion”, such as objectively defining what an appropriate level of stringency should be, objectively determining that none of the proposed standards (GTS 2000, ECE R 30, etc.) were adequate for NHTSA’s purposes or providing a methodology for determining an

¹⁷ In the FARS analysis, NHTSA has defined the most populous state, California, as a “Northern State” even though much of the state is temperate or hot, with very little of the state and its population experiencing a “Northern” climate, i.e. temperatures near or below freezing in the winter. The agency has not provided sufficient data to determine how the analytic results would have differed if populous California has been classified as a Southern state with respect to ambient temperature. It should be also be noted that NHTSA could obtain actual temperature data for the date and location of each accident rather than rely on crude proxies such as state and season.

¹⁸ 67 FR 10060.

appropriate level of stringency. Thus, the conclusions from the STL tests, like the tests themselves, did not advance NHTSA's stated goal of developing new tire performance standards that are realistic in terms of test parameters.

4. Proposed Tire Performance Tests

To comply with the OMB and DOT Data Quality guidelines, NHTSA will need, as part of the pre-dissemination review process, to ensure that each of the tire performance tests disseminated by the agency in any final rule, complies with the utility, objectivity and integrity requirements in the guidelines. Furthermore, NHTSA needs to document or use a comparable public assurance mechanism for substantiating that the agency has complied with quality standards.¹⁹ Although NHTSA needs to comprehensively substantiate the Data Quality of all the proposed tests, the following are some specific Data Quality issues which need to be addressed by the agency.

i. High Speed Test

The ambient temperature testing parameter selected by NHTSA is 40°C (104°F), a non-standard temperature slightly higher than the current testing temperature of 38°C (100°F). NHTSA states that 104° F, "reflects the typical daytime temperatures in the South and Southwestern regions of the U.S. during the Summer."²⁰ NHTSA goes on to explain that "the highest rate of tire problems occurred in southern states in the summertime." There are four Data Quality problems associated with this information:

- ▶ NHTSA has provided no climate data to indicate that 104° is a "typical" summer daytime temperature in the Southern and Southwestern US. In fact, only a relatively few locations in the South/Southwest US achieve a summer daytime temperature of 104° and even 100° is warmer than typical for much of the Southern U.S. in the summer.
- ▶ NHTSA's determination that the ambient temperature is related to increased tire problems is, as was described above, based on: 1) data from which no causality conclusions can be drawn; and 2) a flawed analytic methodology which considers California's climate as northern even though California is one of the few states to have locales which regularly record summertime temperatures in excess of 100°. Nevada, another state to record summertime temperatures over 100° in some places, also is classified by the NHTSA analysis as a northern state.

¹⁹ OMB's guidelines state that "Agencies are directed to develop information resources management procedures for reviewing and substantiating (by documentation or other means selected by the agency) the quality (including the objectivity, utility, and integrity) of information before it is disseminated. [emphasis added] 67 FR 8453.

²⁰ 67 FR 10062.

- ▶ NHTSA provides no evidence that raising the ambient testing temperature by 2°C will prevent any tire failures. Although NHTSA has provided no information indicating that the 104° testing temperature would have any safety benefits, the higher testing temperature would increase testing costs through higher energy requirements. Furthermore, an increase in the ambient testing temperature of 2°C could result in additional cost increases for reasons including: the possible need for a separate room for conditioning the tires prior to the test since the proposed testing temperature is at the extreme edge of the allowable range for conditioning tires (required conditioning temperature 35°C ± 5°²¹); and the need for separate rooms for testing tires to be sold in Europe which specify a testing temperature of 38°C. ISO 9000-certified tire manufacturing facilities are required to test at the specified temperature, not above or below it, even if such variation is allowed by the regulatory authority.
- ▶ The test is performed by running tires against a convex test wheel rather than against a flat surface. Although use of the test wheel offers a number of practical advantages for laboratory testing, the interaction of the two convex surfaces is going to generate more tire stress than running the tire against a flat surface. Although that, in and of itself, does not mean a flawed test design, a soundly designed test would take the increased stress from the use of the test wheel into account when setting the temperature and other testing parameters.

ii. Endurance Test

NHTSA states that the proposed new Endurance Test represents “a more real world test”²² than the current requirements for passenger car tires. However, NHTSA provides little indication as to how the specific test parameters were selected or what data sources were used in determining “real world” conditions. This is a key issue since the DOT Guidelines require use of “reliable data sources”.

The Data Quality flaws in selecting a 40°C testing temperature have already been discussed. With regard to load requirements, NHTSA provides an unsupported statement that vehicle overloading is “more likely to occur with light trucks and vans than with passenger cars” which again raises the reliable data source issue. With regard to the length of the endurance test, NHTSA states that they believe an increase in test duration is warranted to reflect the increased life of current tires. The agency then goes on to state that the test duration is increased “from 34 hours to 40 hours combined with the proposed test speed of 120 km/h represents an increase in the total test difference from 2720 km (1700 miles) to 4800 km (3000 miles).”²³ Although tires may well last longer than they did years ago, that does not necessarily translate into

²¹ 67 FR 10081.

²² 67 FR 10064.

²³ 67 FR 10064-65.

increasing the test duration by 6 hours, i.e. no “sound analytical technique” has been used to extrapolate from the reasonable if general statement concerning changes in tire life to the specific duration parameter.

NHTSA also notes that they never conducted any testing at “exactly the same conditions as those proposed...”²⁴ which raises additional questions as to how the exact test parameters were determined as well as why NHTSA never conducted any tests using the proposed test parameters. Since NHTSA has not analytically derived the specific test parameters nor demonstrated that they are more “real world” than current parameters or that the proposed parameters achieve a specific level of safety, they appear to be arbitrary. Arbitrary test parameters would fail the objectivity and utility requirements of the OMB and DOT Data Quality guidelines.

NHTSA’s admission that they have never actually run the proposed test at the specified parameters presents information that has yet to comply with Data Quality standards. Of particular concern is that NHTSA, after stating that although they had never actually run the test at the specified parameters, asserted that “analysis conducted by the agency indicates that 19 of the 24 tires tested would pass the proposed endurance test.”²⁵ The reason why this statement is of concern is that, in a Tire Variability Analysis discussion in the PEA, NHTSA admits with respect to the Endurance Test that “4 of 8 tire brand/model failures were inconsistent”²⁶ with the agency’s “theory” of how tires should perform in the test. Thus, the agency’s own testing data demonstrates that their “analysis” of how tires are expected to respond to the test parameters is not reliable. Additional discussion of this issue can be found below in the section on Influential Information.

iii. Low Inflation Pressure Tests

NHTSA has proposed two possible Low Inflation Pressure Tests with the goal of selecting one of the two proposals. These tests are intended to supplement the agency’s Tire Pressure Monitoring System (TPMS) rule requiring automakers to install a system to notify drivers when their tires are significantly underinflated. There are significant Data Quality concerns with both proposed tests, specifically as they relate to the Data Quality Guidelines’ requirement for sound analytic design. Of particular concern, are the test parameters for the Low Pressure - High Speed Test. NHTSA has indicated that the tests are designed to be “real world.”²⁷ Thus, NHTSA is apparently indicating that typical real-world behavior of drivers, after they are alerted to the fact that their tires are significantly underinflated, would be to drive for

²⁴ 67 FR 10065.

²⁵ *Ibid.*

²⁶ NHTSA, PEA, p. II-31.

²⁷ 67 FR 10061.

a half-hour at 88 mph, speed up to 94 mph for another half-hour and then drive for an additional half-hour at 100 mph. NHTSA needs to provide the reliable data source that demonstrates that driving for an hour and a half at increasing speeds, all well in excess of the fastest legal speed in the US, is typical real-world response to being alerted to underinflated tires. Alternatively, if NHTSA has designed test protocol for other purposes, they need to state what those purposes are and demonstrate that the test is soundly designed to measure the intended endpoint.

iv. Road Hazard Impact Test

NHTSA's NPRM indicated that they could not provide any quantifiable benefit from the Road Hazard Impact Test.²⁸ The NPRM also stated that they were assuming the test would impose no cost since most "current production tire would pass"²⁹ the test. The agency's Preliminary Economic Assessment (PEA) stated that they are "conducting tests on a sample of tires to determine the suitability of the test..."³⁰ The agency also discusses their Road Hazard Impact research plan.³¹ In that the agency realizes they need additional research on this test, NHTSA needs to explain and document what useful information, i.e. "utility" the agency expects the public to obtain from the test at this point in time.

v. Bead Unseating Test

As was the case with the Road Hazard Test, NHTSA believes that there would be no cost to the proposed test since most current tires would pass. The proposed test is based on Toyota's Air Loss Bench Test. However, NHTSA, based "on the agency's evaluation of this bead unseating method..." changed the inflation pressure parameter for p-metric tires and the load parameter for all tires. The data and analysis resulting in NHTSA's proposed use of these revised test parameters is not transparent. NHTSA also explained that they are "conducting tests on a sample of tires to determine the suitability of the test..."³² and discusses their Bead Unseating research plan.³³ The agency needs to explain, document and provide for public comment what useful information the agency expects the public to obtain from the test prior to completion and public review of their research.

²⁸ 67 FR 10052.

²⁹ *Ibid.*

³⁰ NHTSA, "Preliminary Economic Assessment", p. II-24.

³¹ 67 FR 10070.

³² NHTSA, PEA, p. II-27.

³³ 67 FR 10070.

vi. Aging Tests

The NPRM discusses three potential aging effects tests with the goal of selecting one of them for use in the final rule. All three tests present the agency with significant Data Quality obligations they are required to meet under the guidelines. Specifically, the agency needs to substantiate, on the record, that the tests are based on reliable data sources and sound analytical techniques. This substantiation needs to include not only the overall test design but also the specific testing parameters selected and the pass/fail criteria. Furthermore, NHTSA noted that, “The agency has not done enough testing for the aging test to form an opinion on its potential costs.³⁴ In that the agency, by their own admission, has insufficient information on this test, they need to ensure that their overall economic analysis, as well as the test methodology, complies with the DOT Guidelines.

In addition to NHTSA’s overall Data Quality responsibilities with regard to an Aging Effects test, each proposed test poses its own specific Data Quality duties on the agency. With regard to the “peel test,” NHTSA stated that the information on which the test parameters were based was not public.³⁵ Under DOT’s guidelines, when confidential information is used, “the Department’s policy is to apply and document especially rigorous robustness check.”³⁶ Thus, NHTSA needs to carry out the robustness checks and provide the public the resulting documentation.

With regard to the Michelin’s Long-Term Durability Endurance Test, NHTSA stated that the test had been developed through a multi-year research program at Michelin. DOT’s Guidelines recognize that “it appears that the [third party] information is subject to the guidelines.”³⁷ Thus, NHTSA will need to apply the guidelines the proposed Michelin test methodology.

With regard to the Oven Aging test, NHTSA will need to document that the test parameters, methodology and pass/fail criteria comply with the guidelines including the requirement for “maximum feasible transparency” with regard to the data sources, quantitative methods and the assumptions used in developing the test.

C. *Influential Information*

OMB and DOT guidelines apply particularly stringent Data Quality standards to information classified as “influential.” DOT defines influential information as scientific, financial or statistical information that “will have a clear and substantial impact on ... important private

³⁴ NHTSA, PEA, p. V-2.

³⁵ 67 FR 10068, footnote 39.

³⁶ DOT Guidelines, pp. 15-16.

³⁷ *Ibid.* , p. 7.

sector decisions.”³⁸ DOT goes on to explain that, with regard to rulemakings, influential information is information that “can reasonably be regarded as being one of the major factors in the resolution of one or more key issues in a significant rulemaking, as the term is defined in Executive Order 12866.”³⁹ The definition of “significant regulatory action” in Section 3(f) of Executive Order 12866 includes one that has “an annual effect on the economy of \$100 million or more...” According to NHTSA, the proposed rule is estimated to have an annual cost of \$282 million.⁴⁰ NHTSA also notes that “The rulemaking action has been determined to be economically significant.”⁴¹ In that: 1) a regulation requiring changes in how tires are designed and manufactured would have a clear and substantial impact on important private sector decisions; 2) the rulemaking affects the safety of the motoring public; and 3) the rulemaking is economically significant as defined by Executive Order 12866, at least some of the information in the rulemaking is “influential” as defined by OMB and DOT. However, it is important to note that not all of the information in the rulemaking is directly responsible for the economic and safety significance of the of the rule and, thus, not all of the information in the rulemaking is influential. For example, tests that NHTSA describes as not having any likely cost impact and which most current tire would pass should probably not be designated as influential.

NHTSA’s Preliminary Economic Assessment states that the estimated \$3 per tire price increase which results in an annual cost of \$282 million⁴² is from “the combination of high-speed and endurance tests.”⁴³ NHTSA does not provide any breakout of costs between the two tests. However, assuming anything close to a 50-50 split, it is clear that each of these tests would impose an annual cost in excess of \$100 million and the testing protocols for the options for each of these tests constitutes “influential information” as defined by OMB and DOT. Influential information is the most important information under OMB and DOT and requires the highest level of quality. One of the specific requirements for influential information is reproducibility. As the OMB guidelines state, “OMB believes that a reproducibility standard is practical and appropriate for information that is considered ‘influential’...”⁴⁴ The OMB guidelines go on to explain that even “The fact that the use of original and supporting data and analytic results have been deemed ‘defensible’ by peer-review procedures does not necessarily imply that the results are transparent and

³⁸ *Ibid.*, p. 27.

³⁹ *Ibid.*

⁴⁰ 67 FR 10052.

⁴¹ 67 FR 10073.

⁴² NHTSA, “Preliminary Economic Assessment,” p. V-5.

⁴³ *Ibid.*,” p. V-2.

⁴⁴ 67 FR 8455.

replicable.”⁴⁵ In addition to the reproducibility requirement, the OMB and DOT Data Quality guidelines require that the quality principles in the Safe Drinking Water Act (SDWA) amendments be applied to risk-related information.⁴⁶

NHTSA will need to do substantial work to demonstrate the reproducibility of the proposed high speed and endurance tests, particularly since their own limited testing did not produce the results expected by the agency. Tire variability analysis testing conducted by the agency for both the endurance and high speed tests demonstrate the unreliability of the proposed tests. With regard to the Endurance Test, NHTSA’s variability tests found that “4 of 8 tire brand/model failures were inconsistent with this theory. [of how tires should perform in the endurance test]”⁴⁷ Thus, the analytic results from NHTSA’s controlled tests are, in essence, no different than those produced by random process. NHTSA speculates that the unexpected and inconsistent results “appear to indicate tire-to-tire variability within the same production run...”⁴⁸ NHTSA also speculates that, “There could also be rubber compound variations.”⁴⁹ However, despite the speculation, NHTSA does not provide any data, let alone peer-reviewed data, proving their hypothesis. More importantly, NHTSA has not explained what utility there could be from a test that, regardless of cause, produces essentially random results. NHTSA’s repeatability tests also reveal serious problems with the proposed testing methodology. As NHTSA explained, “The agency is not accustomed to seeing variability as high as those seen in the endurance test for some of the tire brands/models.”⁵⁰

NHTSA’s proposed methodology for assessing High Speed performance is also critically flawed. Specifically, NHTSA states that, “The ‘most’ stringent high speed test produced fewer failures than the ‘least’ stringent high speed test.”⁵¹ NHTSA’s analytic methodology for developing a high speed test, thus, is fundamentally flawed since the results it produces are, essentially, random. NHTSA notes that only three of eight tire brand/model failures were consistent with their theory for how tires should perform in the test.⁵²

The conclusion from NHTSA’s test data is that neither the Endurance nor the High Speed tests are based on a sound analytic methodology, do not have utility, are not reproducible and do not meet basic Data Quality standards let alone standards for influential information.

⁴⁵ *Ibid.*

⁴⁶ DOT Guidelines, p. 16.

⁴⁷ NHTSA, “Preliminary Economic Assessment,” p. II-31.

⁴⁸ *Ibid.*, p. II-32.

⁴⁹ *Ibid.*

⁵⁰ *Ibid.*, p. II-37.

⁵¹ *Ibid.*, p. II-34.

⁵² NHTSA, “Preliminary Economic Assessment”, p. II-32.

D. Ensure Information Fulfills Agency Intentions

The fourth step in DOT's pre-dissemination review process is ensuring, "that the entire information product fulfills the intentions stated and that the conclusions are consistent with the evidence."⁵³ NHTSA's stated intention in the rulemaking is, "improving tire performance"⁵⁴ which the agency believes "will be beneficial in reducing tire failures and crashes resulting from tire failures."⁵⁵ However, although the intention of the rulemaking is to reduce tire failure and associated crashes, the evidence does not support the agency's belief. Specifically,

- ▶ The agency's engineering theories about how tires would respond to the tests were demonstrated to be wrong in testing at least as often as they were right.
- ▶ The agency has admitted that, although they have an intuitive belief that the proposed tests would improve tire safety, they do not know how to translate that belief into an estimate of actual benefits.
- ▶ The agency's data and methodology for determining that ambient temperature was a factor in causing tire failures was significantly flawed since, as discussed earlier, the FARS data cannot be used to assess cause-effect relationships, and the agency's quantitative methodology did not appropriately classify average state temperatures.

Overall, NHTSA does not provide any hard evidence to support their conclusion that the proposed tests would improve tire performance and reduce tire failure-related crashes. Thus, the information in the proposed rule does not fulfill the agency's stated intentions.

E. Identify Origin of Data

DOT agencies are required, as part of the pre-dissemination review process, to indicate the origin of third-party data.⁵⁶ NHTSA generally provided source information for third-party data in the rulemaking with one exception, state data concerning tire problems that is used to estimate the number of pedestrians injuries are associated with tires. NHTSA states that the data was from "files" from Ohio, Pennsylvania and Washington.⁵⁷ However, NHTSA does not provide any information as to what type of files or database the data was drawn from. NHTSA also does not explain why they use 1999 data for Ohio and Pennsylvania and 1996 data for Washington. NHTSA needs to provide this information about the state data as part of their pre-dissemination review process.

⁵³ DOT Guidelines, p. 19.

⁵⁴ 67 FR 10051.

⁵⁵ 67 FR 10052.

⁵⁶ DOT Guidelines, p. 20.

⁵⁷ 67 FR 10056.

F. Provide Additional Data

DOT's pre-dissemination review process requires agencies "[e]nsure that each program office can provide additional information on the subject matter of any covered information it disseminates."⁵⁸ This is an important and useful requirement since sufficient quality information is lacking on a number of key information items in the rulemaking including:

- ▶ The benefits of each of the proposed tests;
- ▶ The costs of each of the proposed tests;
- ▶ NHTSA's hypotheses regarding how current tires should perform on the various proposed tests;
- ▶ The hypothesized link between ambient temperature and tire failure;
- ▶ How and why the specific parameters of each of the proposed tests were selected; and
- ▶ Engineering data on how current tires actually perform on the specific proposed tests.

IV. Conclusions

To comply with OMB and DOT Data Quality Guidelines in the FMVSS No. 138 tire performance standards rulemaking, NHTSA needs to take the following steps:

1. Publish a *Federal Register* notice discussing compliance of the information in the proposed rule with OMB and DOT Data Quality standards and requesting public comment.
2. Provide, based on sound analytic techniques and reliable data sources, a good estimate of the extent to which the proposed standards would improve public safety including a quantified estimate of the benefits of each proposed test.
3. Characterize, based on sound analytic techniques and reliable data sources, a good estimate of the costs of each proposed test.
4. Analyze, based on sound analytic techniques and reliable data sources, the relationship, if any, between ambient temperature and tire failure.
5. Determine the average ambient temperature in the Southern and Southwestern United States on a typical summer day.

⁵⁸ DOT Guidelines, p. 20.

6. Explain the analytic basis for selecting the testing parameters for the baseline tests conducted at STL.
7. Ensure that the conclusions from the tests have utility, including the ability to objectively determine what safety standards should be established in order to achieve a specific level of risk reduction.
8. Document or otherwise substantiate the quality of all information disseminated in the rulemaking.
9. Identify the sound analytic basis of each testing parameter and pass/fail criteria proposed by the agency and explain why those parameters and criteria were selected over possible alternatives.
10. Provide the data demonstrating that driving for an hour and half at speeds up to 100 mph is a typical real world response by drivers to being alerted that their tires are under inflated.
11. Document the application of the Data Quality guidelines to third-party data.
12. Identify the “especially rigorous” robustness checks applied to confidential information, such as the parameters for the peel test, and provide public documentation.
13. Demonstrate that NHTSA’s conclusions are based on the agency’s actual evidence and that the information fulfills the agency’s intention of improving public safety.
14. Clearly identify the specific sources of all third-party information utilized including information from states.
15. Make public the agency’s additional data on the key information items discussed above.
16. Apply the OMB and DOT standards for “influential information” to the proposed High Speed and Endurance tests including the requirement to demonstrate that the test results are transparent and replicable.