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Michelin comments for the California Tire Efficiency Rulemaking

Additional submitted attachment is included below.



June 16, 2026

California Energy Commission
[Docket No. 26-Tire-01](#)
1516 Ninth Street, MS-4
Sacramento, CA 95814

RE: Comments on Tire Efficiency Rulemaking

I. Introduction

Already among the very top global tire manufacturers (#1 in the world in 2025), Michelin is becoming a world-leading manufacturer of life-changing composites and experiences. Michelin operates 35 plants located in 14 U.S. states and 3 Canadian provinces, employing more than 22,000 people in the company's North America Region. Michelin has pioneered engineered materials for more than 135 years; the company is uniquely positioned to make decisive contributions to human progress and a more sustainable world. Drawing on its deep know-how in polymer composites, Michelin is constantly innovating to manufacture high-quality tires and components for critical applications in demanding fields as varied as mobility, construction, aeronautics, low-carbon energies and healthcare. Michelin's Research and Development ("R&D") Center in North America employs almost 800 engineers and other staff who have been responsible for bringing some of the finest products in the world to market, including the first 80,000-mile passenger tire for American-made vehicles.

Michelin appreciates the opportunity to offer comments on the California Energy Commission's (CEC) Replacement Tire Efficiency Report. Since its founding, Michelin has always upheld freedom of movement as a fundamental right and a source of human progress. Keenly aware of the environmental impact of its operations, Michelin Group strives to maintain a leading role in sustainable development. The company's actions are grounded in its history, values, and expertise, and in the reaffirmation of its strong convictions.

Among these convictions is the belief that technological progress is one of the solutions to environmental challenges. Technological progress is critical for a society committed to making efficiency gains that help the environment. Michelin believes that technological progress enables us to continually build on the principles of the circular economy, carbon reduction, resource conservation and biodiversity. This conviction is deeply rooted in Michelin's culture, reflecting its innovation leadership and its expertise in the optimal use of materials and the development of products that are made to last.

In this context, Michelin has been committed for many decades to improving the rolling resistance of its products. From 1992 to 2025, Michelin halved its tires' rolling resistance and aims to improve that performance by 1% per year through 2030.

Michelin supports industry regulations that improve rolling resistance and thus reduce energy consumption and applauds California for its leadership in this initiative. Rolling resistance --- that is, the energy consumed during the tire's use and operation on the roads --- is estimated to account for more than 80% of the tire's total life-cycle environmental impacts based on CO2 emissions. Rolling resistance improvements, however, must also balance essential safety requirements like wet traction and environmental requirements like wear life or durability that reduce scrapping for end-of-life tires. Michelin believes tires should be both safe and efficient, from the first mile of use to the very last, all the way to the legal wear limit. Michelin finds the CEC proposal consistent with these principles as well.

Looking ahead, Michelin's long-term ambitions include producing all tires with 100% renewable and recycled materials by 2050, with no negative compromise in safety or performance: Renewable materials can be replaced within a human life-span; recycled materials give another, high value use to secondary raw materials. Globally, an estimated

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79% of end-of-life tires are collected for recycling or reuse. Successfully transforming end-of-life tires from scrap into secondary raw materials --- such as rubber-modified asphalt, or returning as a carbon-black supplement for tire production supporting Michelin's long-term ambitions

Michelin offers comments on the following key points, which are discussed in greater detail below:

- Michelin supports industry regulations that improve rolling resistance, which also are aligned with the 2028 and 2031 thresholds for rolling resistance.
 - Timing with a two-phase approach is practical.
 - Exempting winter-type snow tires & deep tread tires is important to ensure sufficient tire performance is feasible in certain driving conditions.
 - Commercial vehicle tires including ETRTO commercial vehicle tires (Load Index \leq 121) should be within the scope of the regulation.
 - Life Cycle Analysis: Treating long-wear-life tires separately is well aligned with balancing the tire's whole life cycle approach.
 - Treating LT, Ultra High Performance tires, low load index separately is appropriate.
 - The regulation incorporates a wet grip minimum to minimize the risk of tradeoffs between rolling resistance and wet grip.
- Test Method Alignment
 - Using ISO 28580 for rolling resistance testing and alignment to the EU network of reference laboratories is appropriate.
 - Using ISO 23671 for wet grip testing of passenger car tires is relevant for modern vehicles.
 - Michelin recommends using ISO 15222 for wet grip testing of LT tires with a wet grip index threshold of 1.1.
 - UTQG treadwear testing has significant variation which must be taken into account during verification and compliance testing with appropriate thresholds for long-life and ultra long-life categories.
- Rating System: Tire grading for efficiency helps consumers make more informed decisions.
- Enforcement: Compliance enforcement is essential to meet the CEC's energy saving targets.

II. Michelin Responses to Requests for Comments

§3302. Definitions

§3302. Definitions (44)

(44) "Replacement tire" means a new tire sold or offered for sale in California, except as wholesale for final retail sale outside the state, and is designed to replace a tire on a passenger car or light-duty truck. "Replacement tire" does not include any of the following tires:

- (A) a retreaded tire;
- (B) a used tire;
- (C) a deep tread tire;
- (D) a winter-type snow tire;
- (E) a space-saver tire;
- (F) a temporary use spare tire;
- (G) a tire with a nominal rim diameter of 12 inches or less;
- (H) a motorcycle tire;
- (I) a tire manufactured specifically for use on an off-road motorized recreational vehicle;
- (J) a limited production tire;

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*(K) a tire with a load index of 122 or greater, or where the load index is not marked and the tire is rated for a maximum load that exceeds 1,450 kg; or
(L) a tire that is not capable of maintaining sustained speeds of greater than 50 miles per hour*

Michelin Comment: In §3302. Definitions (44) (C) & (D), Michelin supports exempting deep tread tires & winter-type snow tires to ensure sufficient tire performance is feasible in certain driving conditions.

In §3302. Definitions (44) (J), exempting limited production tires is appropriate to minimize regulatory burdens for tire segments which have limited impact on overall energy savings.

§3302. Definitions (26)

(26) “Long-life” means a tire with a UTQG wear test score of at least 1,000 but less than 1,400, as evaluated according to the treadwear rating conditions and grading procedure in 49 Code of Federal Regulations part 575.104(e) (2023).

Michelin Comment: In §3302. Definitions (26), the UTQG wear test score should be “at least 800 but less than 1,000”. This is based on recent wear life estimates above 53,000 miles, average UTQG results of tirelines currently sold, and analysis of the variability of the test method for Michelin products. We encourage additional UTQG treadwear test results from the industry to supplement the appropriate thresholds.

§3302. Definitions (30)

(30) “Material change” means a change to a tire of such a type or magnitude as to raise the reasonable expectation of a change in the declared tire energy efficiency rating listed in the database.

Michelin Comment: In §3302. Definitions (30), the term “Material change” should say “substantial change” or “significant change” instead to match everyday language.

§3302. Definitions (49)

(49) “Smaller truck and bus tire” means a truck and bus tire with a load index of 121 or smaller or, where the load index is not marked, a maximum load of 1,450 kg or lower.

Michelin Comment: In §3302. Definitions (49), “Smaller truck and bus tire” could be used to cover LT and commercial vehicle tires including ETRTO commercial vehicle tires. This broader definition would cover tire standards other than TRA or ETRTO.

Recommended change: “Smaller truck and bus tire” means a truck and bus tire with a load index of 121 or smaller or, where the load index is not marked, a maximum load of 1,450 kg or lower. Examples of “Smaller truck and bus tires” include Tire and Rim Association LT tires, European Tyre and Rim Technical Organization commercial vehicle tires, Japan Automobile Tire Manufacturers' Association, Inc. light truck, truck and bus tires, Tyre & Rim Association of Australia truck and bus tires, Associacao Latino Americana de Pneus e Aros (Brazil) light commercial vehicle as well as truck and bus tires, and South African Bureau of Standards commercial vehicle tires.

§3302. Definitions (58)

(58) “Ultra high-performance” means a tire that both bears a speed category symbol of “W,” “(W),” “Y,” or “(Y)” and is capable of maintaining maximum speeds of 168 miles per hour or above, and that has a relative wet grip braking performance index of at least 1.45.

Michelin Comment: In §3302. Definitions (58), “(W)” should be removed since “(W)” is not used for tires within the scope of this regulation.

§3302. Definitions (59)

(59) “Ultra long-life” means a tire with a UTQG wear test score of 1,400 or higher, as evaluated according to the treadwear rating conditions and grading procedure in 49 Code of Federal Regulations part 575.104(e) (2023).

Michelin Comment: In §3302. Definitions (59), the UTQG wear test score should be “1,000 or higher”. This is based on recent wear life estimates above 72,000 miles, average UTQG results of tirelines currently sold, and

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analysis of the variability of the test method for Michelin products. We encourage additional UTQG treadwear test results from the industry to supplement the appropriate thresholds.

§3302. Definitions (62)

(62) “Winter-type snow tire” means a tire that has all the characteristics of subsections (A), (B), and (C) of this definition. A tire subject to the UTQG standards is not a “winter-type snow tire.”

(A) Is limited in its acceptable use to winter periods by virtue of its design and construction.

(B) Attains a traction index equal to or greater than 112, compared to the ASTM F2493 standard reference test tire when using the snow traction test on the medium pack snow surface as described in ASTM F1805-20.

(C) Is equipped with studs or is marked with an Alpine Symbol, specified in the Federal Motor Vehicle Safety Standards at 49 Code of Federal Regulations part 571.139 S5.5(i) (2023), on at least one sidewall

Michelin Comment: In §3302. Definitions (62), (A) should be removed because there are no objective regulatory criteria to determine this statement. (B) and (C) are sufficient to define a Winter-type snow tire. “A tire subject to UTQG standards is not a “winter-type snow tire” should be removed because some tires marked with the Alpine Symbol voluntarily include UTQG markings.

The latest version of ASTM F1805 should be used, rather than specifying the -20.

§3303. Test Specifications

§3303. Test Specifications (a)

(a) EU Correlated Rolling Resistance Coefficient. A reference laboratory or compliance verification laboratory shall report any rolling resistance coefficients obtained for use pursuant to this Article as an EU correlated rolling resistance coefficient.

Michelin Comment: In §3303. Test Specifications (a), Michelin supports using ISO 28580 and the “network of reference laboratories” since this procedure has been used and accepted by the industry for years. The EU correlated Rolling Resistance Coefficient is contingent on Europe continuing the “network of reference laboratories” procedure in the future. If this procedure changes in Europe, then the proposed regulation may need to evolve or adapt.

It is not possible that a laboratory in the US could be one of the “network of reference laboratories” and therefore all laboratories in the US will be correlated to the network reference laboratories by doing an alignment with one of the network reference laboratories. The network of reference laboratories should produce the most correlated rolling resistance coefficients and compliance verification laboratories will have some error due to the alignment process. Tire manufacturers will need to take into account error associated with the alignment process at the compliance verification laboratory and may produce tires which have lower rolling resistance than actually required by the regulation.

§3303. Test Specifications (a)(2)(F)(iv)

(iv) Requirements Applicable to Candidate Laboratories. A candidate laboratory shall repeat the alignment procedure at least once every second year for every machine and always after any significant machine change or any drift in machine control tire monitoring data. A common set of five different tires that have been selected in accordance with subsection (a)(2)(F)(i)b. of this section shall be measured in accordance with subsection (a)(2)(F)(i)c. of this section, first by the candidate laboratory and then by one reference laboratory. More than five alignment tires may be tested at the request of the candidate laboratory. The candidate laboratory shall provide the alignment tire set to the selected reference laboratory. The candidate laboratory (c) shall comply with the specifications of ISO 28580:2018 and have standard deviations (σ_m) as follows: not greater than 0.075 N/kN for passenger car tires. If the standard deviation (σ_m) of the candidate laboratory is higher than those values after four measurements, the last three being used for the computations, then the number $n + 1$ of measurement repetitions shall be increased as follows for the entire batch:

$$n = (\sigma_m / \gamma)^2, \text{ rounded up to the nearest higher integer value}$$

where:

$$\gamma = 0.043 \text{ N/kN for passenger car tires;}$$

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Michelin Comment: In §3303. Test Specifications (a)(2)(F)(iv), due to the alignment of the compliance verification laboratory every two years, the EU correlated rolling resistance values may change up to +/-0.25 N/kN because the alignment equation changes. Tire manufacturers will need to take this possible change in RRC values into account to ensure tires remain compliant in the future.

The compliance verification laboratory standard deviation requirement of 0.075 N/kN should be less than 0.05 N/kN when auditing tires for the CEC. This will help mitigate some of the risk of test variation by ensuring the audit laboratory has less test variation.

§3303. Test Specifications (b)

(b) Relative Wet Grip Braking Performance Index. The test method, procedures, and conditions to determine the peak coefficient of friction of a replacement tire shall be ISO 23671:2021. The calculation of the relative wet grip braking performance index specified in ISO 23671:2021 shall be conducted using an ASTM F2493-20 standard reference test tire set.

Michelin Comment: In §3303. Test Specifications (b), the scope of ISO23671:2021 is only passenger car tires and it does not specify the test pressure for LT tires. For LT tires, the appropriate wet grip test method is ISO15222. The reference tire is not the same for passenger car tyres (ISO 23671) and LT ones (ISO 15222). Furthermore, the Wet Grip Index calculation is different between C1 and C2 (LT) --> both indexes (C1 and C2) are not comparable and should not have the same minimums.

Regulations referencing SRTTs should not include the “-20” from ASTM F2493-20 because this is updated periodically. NHTSA follows this same practice of only specifying ASTM F2493.

§3305. Submitting Tire Information to the Database

§3305. Submitting Tire Information to the Database (b) (6) (C)

(C) The declared EU correlated rolling resistance coefficient shall be reported in newtons per kilonewton (N/kN) to the tenths place value. The reported value shall be no lower than the exact result of the EU correlated rolling resistance coefficient for the tire when tested according to the specifications in 3303(a).

Michelin Comment: In §3305. Submitting Tire Information to the Database (b) (6) (C), submitting the declared EU correlated rolling resistance coefficient is unnecessary since the leaf grade is submitted and the manufacturer states that the tire is compliant. (C) should be removed from the regulation since the leaf grade is sufficient.

Including the EU correlated rolling resistance coefficient on the public database is not recommended since the leaf grade is sufficient to inform consumers about the relative performance between tires.

§3305. Submitting Tire Information to the Database (b) (6) (E)

(E) The relative wet grip braking performance index shall be based on the test method specified in section 3303(b), and shall be reported as a range as either below 1.0, equal to or greater than 1.0 and less than 1.45, or equal to or greater than 1.45. The reported range shall be no higher than the exact result for the tire when tested according to the specifications in 3303(b).

Michelin Comment: In §3305. Submitting Tire Information to the Database (b) (6) (E), submitting wet grip braking performance for LT tires is not possible following the test method specified in section 3303 (b) (ISO23671:2021). The scope of ISO23671:2021 is only passenger car tires and it does not specify the test pressure for LT tires. For LT tires, the appropriate wet grip test method is ISO15222.

§3305. Submitting Tire Information to the Database (b) (6) (I) & (J) & (K):

(I) If present, the UTQG traction rating shall be reported as the UTQG traction rating designation marking on the tire. If the marking is not present, the UTQG traction rating shall be based on the test method specified in section 3303(e) and shall be reported as AA, A, B, or C for each replacement tire.

(J) If present, the UTQG treadwear rating shall be reported as the UTQG treadwear rating designation marking on the tire. If the marking is not present, the UTQG treadwear rating shall be based on the test method specified in

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section 3303(f) and shall be reported as a number of three digits representing the tire's grade for treadwear and expressed in multiples of 20 for each replacement tire.

(K) If present, the UTQG temperature rating shall be reported as the UTQG temperature rating designation marking on the tire. If the marking is not present, the UTQG temperature rating shall be based on the test method specified in section 3303(g) and shall be reported as A, B, or C for each replacement tire.

Michelin Comment: In §3305. Submitting Tire Information to the Database (b) (6) (I) & (J) & (K), submitting UTQG information for LT tires is not possible. LT tires are not within the scope of UTQG regulations and LT test conditions are not specified. Therefore, it is not possible to test LT tires following the UTQG regulation and no UTQG information is available.

In §3305. Submitting Tire Information to the Database (b) (6) (I), the UTQG traction rating is not relevant to modern vehicles with anti-lock braking systems. Therefore, it is not recommended to include UTQG traction ratings in the database.

In §3305. Submitting Tire Information to the Database (b) (6) (K), the UTQG temperature rating is available on NHTSA's website and it is not recommended to include in the database.

§3306. Energy Performance Standards

Michelin Comment: In §3306. Energy Performance Standards, "Smaller Truck and bus" replacement tires should have rolling resistance thresholds specified. Commercial vehicle tires including ETRTO typically have higher severity usage conditions for commercial applications and therefore should be treated separately from passenger car tires. Combining "Smaller Truck and bus" tires with LT tires could be a practical option.

§3306. Energy Performance Standards (a):

(a) Except as provided in subsections (b), (c), (d), (e), (f), (g), (h) of this section, no tire manufacturer, tire brand name owner, or tire retailer shall sell or offer for sale in California, except as wholesale for final retail sale outside of the state, any replacement tire that has an EU correlated rolling resistance coefficient greater than the following, when tested according to the specifications in section 3303(a):

- (1) For tires manufactured before January 1, 2028, there is no energy performance standard requirement.
- (2) For tires manufactured on or after January 1, 2028, 9.0 N/kN.
- (3) For tires manufactured on or after January 1, 2031, 7.1 N/kN.

Michelin Comment: In §3306. Energy Performance Standards (a), utilizing a two-phase approach is practical given the constraints of the tire industry to quickly modify tire designs and subsequent manufacturing infrastructure changes. Phase two thresholds will be challenging but they are technically feasible.

§3306. Energy Performance Standards (b) & (c):

(b) Ultra Long-Life and Ultra High-Performance Tires. No tire manufacturer, tire brand name owner, or tire retailer shall sell or offer for sale in California, except as wholesale for final retail sale outside the state, any ultra long-life or ultra high-performance replacement tire that has an EU correlated rolling resistance coefficient greater than the following, when tested according to the specifications in section 3303(a):

- (1) For tires manufactured before January 1, 2028, there is no energy performance standard requirement.
- (2) For tires manufactured on or after January 1, 2028, 9.8 N/kN
- (3) For tires manufactured on or after January 1, 2031, 8.5 N/kN.

(c) Long-Life Tires. No tire manufacturer, tire brand name owner, or tire retailer shall sell or offer for sale in California, except as wholesale for final retail sale outside the state, any long-life replacement tire that has an EU correlated rolling resistance coefficient greater than the following, when tested according to the specifications in section 3303(a):

- (1) For tires manufactured before January 1, 2028, there is no energy performance standard requirement.
- (2) For tires manufactured on or after January 1, 2028, 9.4 N/kN.
- (3) For tires manufactured on or after January 1, 2031, 7.8 N/kN.

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Michelin Comment: In §3306. Energy Performance Standards (b), consumers of ultra-high performance (UHP) tires require high traction levels which is typically not feasible with low rolling resistance tire designs. Therefore, UHP tires need to be treated separately.

In §3306. Energy Performance Standards (b) & (c), treating long-wear-life tires separately is well aligned with balancing the tire's whole life cycle approach

Michelin uses industry standard Life Cycle Analysis tools to evaluate environmental impacts of our products. These tools include the ISO 14040-44 Life Cycle Analysis methodology and the Product Category Rules for tires developed by the Tire Industry Project. Utilizing Life Cycle Analysis for passenger and light truck tires shows that the tire use stage accounts for roughly 80% of the overall life cycle environmental impact. Tire rolling resistance is the primary tire performance impacting CO2 emissions and tire longevity impacts raw material use rates as well as end of life land use for disposal. The environmental impact relationship between tire rolling resistance and tire longevity can be demonstrated in Life Cycle Analysis studies and the higher rolling resistance allowance for long wearing tires in the CEC tire efficiency regulation is appropriate. Indeed, tire longevity becomes more prominent (lower environmental impact) in Life Cycle Analysis as the vehicle park electrifies and as power grids transition to greener sources. A tire with 80,000 mile life is eco-equivalent to a 40,000 mile tire with ~1kg/ton lower RR.

§3306. Energy Performance Standards (d):

(d) Low Load Index Tires. No tire manufacturer, tire brand name owner, or tire retailer shall sell or offer for sale in California, except as wholesale for final retail sale outside the state, any low load index replacement tire that has an EU correlated rolling resistance coefficient greater than the following, when tested according to the specifications in section 3303(a):

- (1) For tires manufactured before January 1, 2028, there is no energy performance standard requirement.*
- (2) For tires manufactured on or after January 1, 2028, 9.5 N/kN.*
- (3) For tires manufactured on or after January 1, 2031, 7.6 N/kN.*

Michelin Comment: In §3306. Energy Performance Standards (d), the rolling resistance coefficient is typically correlated to the load index, and therefore providing lower load index tires with rolling resistance relief is appropriate.

§3306. Energy Performance Standards (e):

(e) Light Truck Replacement Tires. No tire manufacturer, tire brand name owner, or tire retailer shall sell or offer for sale in California, except as wholesale for final retail sale outside the state, any light truck replacement tire that has an EU correlated rolling resistance coefficient greater than the following, when tested according to the specifications in section 3303(a):

- (1) For tires manufactured before January 1, 2028, there is no energy performance standard requirement.*
- (2) For tires manufactured on or after January 1, 2028, 9.0 N/kN.*
- (3) For tires manufactured on or after January 1, 2031, 7.8 N/kN*

Michelin Comment: In §3306. Energy Performance Standards (e), light truck tires and commercial vehicle tires typically have higher severity usage conditions for commercial applications and therefore should be treated separately from passenger car tires.

This category should be changed to “Smaller truck and bus” to cover a broader range of tires which should be treated separately from passenger car tires.

§3308. Relative Wet Grip Braking Performance Index Performance Standard

§3308. Relative Wet Grip Braking Performance Index Performance Standard (a)

(a) No tire manufacturer, tire brand name owner, or tire retailer shall sell or offer for sale in California, except as wholesale for final retail sale outside of the state, any replacement tire that is manufactured on or after January 1, 2028 that has a relative wet grip braking performance index less than 1.0

Michelin Comment: In §3308. Relative Wet Grip Braking Performance Index Performance Standard, the 1.0 minimum is appropriate for ISO 23671 when testing passenger car tires. When testing LT tires using ISO 15222,

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the method is different and 1.0 is not comparable between ISO 23671 and ISO 15222. A relevant minimum wet grip performance index for ISO 15222 needs to be determined and included in the regulation.

The recommended threshold for ISO15222 is 1.1 for “smaller truck and bus” tires. The Wet Grip Index of 1.1 using ISO 15222 is similar in wet grip performance as a Wet Grip Index of 1.0 using ISO 23671. The 1.1 is based on testing C2 tires using ISO15222 and mathematically estimating the ISO 23671 Wet Grip Index using the assumption that the $SRTT_{16}^{\circ C}$ coefficient = 70% of $SRTT_{16}$. A linear regression was used to estimate the ISO 15222 wet grip index when the ISO 23671 wet grip index was 1.0. 1.1 is also used in UNECE regulation 117 since 2024 for these types of tires.

§3309. Compliance and Verification

§3309. Compliance and Verification (d) (1) (A) & (B)

(A) The Executive Director or commission staff shall cause tests on three units of a basic model of a replacement tire. For rolling resistance, the Executive Director or commission staff shall use the applicable test procedure specified in section 3303 and determine the mean plus two standard deviations of the rolling resistance coefficient for the three tires.

(B) Upon completion of the test, the Executive Director or commission staff shall make a determination and proceed as follows:

(i) Replacement Tire Is No Different Than Reported and Declared by Manufacturer or Brand Name Owner. If the test result from subsection (d)(1)(A) of this section indicates that the replacement tire is no different than reported and declared by the manufacturer or brand name owner to the database pursuant to section 3305, the matter may be closed.

(ii) Replacement Tire Is Different Than Reported and Declared by Manufacturer or Brand Name Owner. If the Executive Director or commission staff determines that the replacement tire characteristics tested under subsection (d)(1)(A) of this section are different than declared by the manufacturer or brand name owner pursuant to section 3305, the Executive Director or commission staff may proceed according to subsections (e) or (f).

Michelin Comment: In §3309. Compliance and Verification (d) (1) (A) & (B), subtracting 0.3 N/kN is the compliance approach in Europe to account for test variation rather than using two standard deviations. The standard deviation from three samples is not as consistent as a constant 0.3 N/kN. 0.3 N/kN is appropriate to account for test variation and potential changes to the alignment equation updates every two years. Also, there is additional error associated with the alignment between the compliance verification laboratory and the network of reference laboratories.

Since the alignment equation changes every two years, the regulation should allow for audits and non-compliance appeals to use the older alignment equations from when the tire was originally introduced to the database. Compliance should be based on the lower value obtained from either of the alignment equations minus 0.3 N/kN.

If a constant 0.3 N/kN is not included in the regulation, then the mean MINUS (rather than PLUS) two standard deviations should be used as the value to determine compliance to minimize the risk of test variation causing a non-compliance.

§3309. Compliance and Verification (e)

(e) Determination of Completeness, Accuracy, and Compliance of Statements, Confirmations, and Database Listings. Notwithstanding any other provision of these regulations, the Executive Director or commission staff may at any time challenge the completeness, accuracy, and compliance with the requirements, of any statement or confirmation submitted pursuant to this Article, or of any information listed in the database. If the Executive Director or commission staff determines that any statement or confirmation submitted pursuant to this Article, or of any information listed in the database is incomplete, inaccurate, or otherwise fails to comply with any of the requirements of this Article, then the Executive Director or commission staff shall send notice of the defects to the database-designated contact person, as described in section 3305(c)(2) and may take any other action authorized by law, including without limitation, any one or combination of the following:

(1) If the affected basic model or tire of last resort is not listed in the database of approved tires, then the Executive Director or commission staff may refuse to allow the basic model or tire of last resort to be listed in the database of approved tires, until the Executive Director or commission staff determines the defect is cured.

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Michelin Comment: In §3309. Compliance and Verification (e), it may not be feasible for a state government to accurately verify that less than 15,000 tires per basic model have been imported into the US or produced on an annual basis.

UTQG Treadwear variation when testing ultra long-life tires is potentially +/- 300. If multiple UTQG treadwear test reports are available, the data should be averaged to better estimate the true UTQG Treadwear mean result. If the first UTQG treadwear audit result is below expectations, then additional UTQG treadwear testing should be done.

The appeal process by manufacturers to submit additional data proving compliance should be included in the regulation.

Compliance enforcement is essential to meet the CEC's energy saving targets. Michelin supports a robust audit plan and increasing California's enforcement authority. This regulation needs adequate resources and structure to sample the market with appropriate follow up enforcement penalties for any non-compliances found to ensure a level playing field.

III. Conclusion

In conclusion, Michelin broadly supports the proposed regulatory framework aimed at improving tire rolling resistance and overall energy efficiency, recognizing its alignment with long-term environmental and performance objectives. The staged, two-phase implementation approach is considered practical given the complexity of tire design cycles and manufacturing constraints. Maintaining tire safety and performance requires appropriate exemptions for specialized products such as winter-type snow and deep tread tires, as well as differentiated treatment for segments such as ultra-high performance, long-life, and light truck tires.

Michelin also underscores the importance of harmonized and technically sound test methods, supporting the use of established ISO standards while recommending refinements to ensure applicability across all tire categories, especially for light truck tires. Clear and consistent laboratory alignment procedures, along with realistic considerations of testing variability, are essential to ensure fair compliance assessments.

Clarifications in definitions, scope, and classification, particularly regarding ETRTO commercial vehicle tires and UTQG applicability, are critical to avoid ambiguity and ensure proper implementation.

Finally, Michelin highlights that robust enforcement mechanisms, supported by adequate resources and transparent processes, are essential to achieving the intended energy savings and maintaining a level playing field across the industry. Incorporating lifecycle analysis principles within the regulation appropriately balances rolling resistance improvements with tire end-of-life considerations, reinforcing a comprehensive approach to environmental performance.

Overall, with targeted refinements and clarifications, the proposed regulation can effectively advance energy efficiency goals while preserving safety, performance, and innovation within the tire industry.

Michelin appreciates the opportunity to submit these comments.

Michelin recommends checking tire pressure monthly. More information can be found using the link below.
<https://www.michelinman.com/auto/auto-tips-and-advice/tire-maintenance/routine-tire-care-tips>

Sincerely,



Britton Swingle,
Director, Industry Standards & Government Regulations
Michelin North America, Inc.

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