DEPARTMENT OF CALIFORNIA HIGHWAY PATROL

INITIAL STATEMENT OF REASONS

TITLE 13, CALIFORNIA CODE OF REGULATIONS,
DIVISION 2, CHAPTER 4, ADD ARTICLE 13 TIRE TRACTION DEVICES,
SECTIONS 1070-1074

Tire Traction Devices
(CHP-R-2014-03)

PROBLEM STATEMENT

The California Vehicle Code (CVC) defines tire traction devices in Section 605 as devices or mechanisms having a composition and design capable of improving vehicle traction, braking, and cornering ability upon snow and ice-covered surfaces. Tire traction devices shall be constructed and assembled to provide sufficient structural integrity and to prevent accidental detachment from vehicles.

Tire chains and cable chains are the most common types of traction control, and have proven effective throughout many years of use. They are tested and are in compliance with the CVC. New innovative concepts for traction control devices have been created and marketed throughout the United States and other countries. At this time, there are no regulations in place which detail the placement of tire chains or require new devices to meet or exceed the standard of performance provided by tire chains.

PURPOSE AND NECESSITY OF REGULATIONS

Section 2402 CVC authorizes the Commissioner of the California Highway Patrol (CHP) to make and enforce regulations as necessary to carry out the duties of the CHP. Section 26103 CVC, authorizes the CHP to adopt and enforce regulations establishing standards and specifications for tire traction devices. The CHP proposes to add Sections 1070 through 1074 to Title 13 of the California Code of Regulations (CCR). It is necessary to add Section 1070 through 1074 to the CCR to promote the safe operation of motor vehicles during inclement weather. This is accomplished by providing guidance and uniformity to all types of tire traction devices, determining placement of tire traction devices, and to ensuring tire traction devices have been tested to meet performance standards. Additionally, this rulemaking provides the opportunity for other new tire traction device technologies the opportunity to compete with other traction control devices without compromising safety to the motoring public.

§1070. Scope. This section proposes to require tire traction devices to meet specifications and be tested according to published standards, prior to being used on vehicles during snow and ice weather conditions.

§1071. Definitions.

Subsection (a) proposes to add a definition for alternative tire traction devices differing from that of a conventional tire chain.

Subsection (b) proposes to add a definition for an automatic tire chain.

Subsection (c) proposes to clarify a definition for snow-tread tires which are defined in Section 558 CVC.

Subsection (d) proposes to clarify a definition for studded tires, which is described in Section 27454(e)(1) CVC.

Subsection (e) proposes to add a definition for tire cables.

Subsection (f) proposes to add a definition for tire chains.

§1072. General Application. This section provides the minimum requirements for placement of tire traction devices, when the California Department of Transportation (CalTrans) has placed official traffic control signs requiring the use of chains, due to inclement weather.

Subsection (a) is proposed to be applicable for vehicles under 10,000 pounds (lbs.), including vehicles with all-wheel drive and four wheel drive. Subsection (a)(1) is proposed to require traction control devices on two tires of the same drive axle. Subsection (a)(2) is proposed to require traction control devices on two of the tires of the drive axle and on two tires of the same axle of a towed trailer.

Subsection (b) is proposed to be applicable for buses. Subsection (b)(1) is proposed to require traction control devices on two of the tires of the drive axle. In addition, if the bus is articulated, Subsection (b)(2) is proposed to require traction control devices on two of the tires of the drive axle and on two of the outside tires on the last axle.

Subsection (c) is proposed to be applicable for vehicles over 10,000 lbs. Subsection (c)(1) is proposed to require traction control devices on two of the tires of the drive axle of a pickup. Subsection (c)(2) is proposed to require traction control devices on two of the tires of the drive axle of a two-axle motor truck. Subsection (c)(3) is proposed to require traction control devices on four of the tires of the drive axle of a three-axle motor truck. Subsection (c)(4) is proposed to require traction control devices on four of the tires of the drive axle of a truck tractor.

Subsection (d) is proposed to be applicable for combinations of vehicles over 10,000 lbs. Subsection (d)(1) is proposed to require traction control devices on four of the tires of the drive axle of truck tractor and on two tires of the last axle of the trailer, when in combination. Subsection (d)(2) is proposed to require traction control devices on four of the tires of the drive axle of truck tractor, two tires on the semi-trailer, and on two tires of the last axle of the trailer,

when in combination. Subsection (d)(3) is proposed to require traction control devices on four of the tires of the drive axle of a two or three axle motor truck and on two tires of the last axle of the trailer, when in combination.

Subsection (e) is proposed to allow the Department of Caltrans and the CHP to require additional traction control devices when conditions warrant.

§1073. Tire Chain Requirements. This proposal requires tire chains to meet the requirements established by National Association of Chain Manufacturers (NACM), in the Tire Chain Specification Standard NACM 92805 (TC). In addition, all vehicles used in testing must be certified, by their manufacturer, as being compliant with the Federal Motor Vehicle Safety Standards (FMVSS) and the tires used in testing must be United States Department of Transportation (U.S. DOT) approved. This NACM standard was selected since it is utilized by the majority of tire chain manufactures and will provide uniformity for the use of tire traction chains.

§1074. Alternative Tire Traction Device Requirements. This proposal outlines the requirements that alternative traction control devices must meet for use in California.

Subsection (a) proposes to require alternative traction devices to be tested in accordance with the standard published by Austrian Standards Institute (Önorm V5119), on vehicles which are certified, by their manufacturer, as being compliant with the FMVSS. This standard was selected since it the only recognized standard for tire traction devices. It will ensure newly developed tire traction devices will perform equal to or greater than the traditional tire chain. Additionally, this proposal requires the tires used in testing to be U.S. DOT approved.

Subsection (a)(1) proposes to specify requirements for vehicles under 10,000 lbs.
Subsection (a)(1)(A) requires the traction devices be placed on two tires of the same drive axle, of a two axle vehicle. Subsection (a)(1)(B) proposes to include the following tests: (i) Durability testing of the product on dry or wet roadway; (ii) Acceleration on snow and/or ice; (iii) Deceleration on snow and/or ice; (iv) Traction force of the product on snow; and (v) Be compared to a tire chain when tested using the same standard to show it meets or exceeds the standard as compared to the results of a tire chain for traction, braking, and cornering ability on snow or ice covered surfaces.

Subsection (a)(2) proposes to specify requirements for vehicles and combinations over 10,000 lbs.
Subsection (a)(2)(A) requires the traction devices be placed on two tires of the same drive axle, of a two axle motor truck. Subsection (a)(2)(B) requires the traction devices to be placed on the four drive axle tires, of a three axle motor truck. Subsection (a)(2)(C) requires the traction devices to be placed on the four drive axle tires, of a truck tractor. Subsection (a)(2)(D) requires the traction devices to be placed on the two tires of the last axle, of a semi-trailer. Subsection (a)(2)(E) requires the traction devices to be placed on two drive axle tires, of a two axle bus.
Subsection (a)(2)(F) requires the traction devices to be placed on two drive axle tires, of a three axle bus. Subsection (a)(2)(G) proposes to include the following tests: (i) Durability testing of the product on dry or wet roadway; (ii) Acceleration on snow and/or ice; (iii) Deceleration on snow and/or ice; (iv) Traction force of the product on snow; and (v) Be compared to a tire chain when

tested using the same standard to show it meets or exceeds the standard as compared to the results of a tire chain for traction, braking, and cornering ability on snow or ice covered surfaces.

Subsection (b) proposes to require traction devices to cooperate well with any given electronic driving support such as the Anti-locking Braking System, Electronic Stability Program, and Anti-Slip Regulation.

Subsection (c) proposes to require traction devices to be resistant to ultraviolet light, corrosion, water, fuels, spreading salts and alcohols which may be used to aid in clearing the roadway.

Subsection (d) proposes to require the following documentation to be provided to the CHP, only upon request: (1) The testing standard used, in English; (2) Documentation of the testing results, which must include the data produced for each test comparing the traction device to the referenced tire chain. Durability testing is not required to be provided for the referenced tire chain; (3) A certified statement from the manufacturer outlining what measurable indicator of wear can be used by law enforcement to indicate when the product will no longer provide adequate traction equivalent to a chain; (4) Review and approval by a third-party testing agency that the tests were conducted according to the published standard. If testing cannot be done according to the published standard, companies may self-certify any supplemental tests necessary to comply with the requirements in this section, provided that the data from the tests is confirmed by a third-party testing agency. The CHP may request the data be provided by the third-party testing agency directly; (5) Provide certification of the test results, which must contain the following statement "I certify that the test methods, conditions and results reported are accurate and complete" and bear the signature of the tester.

HISTORY/BACKGROUND

In 1951, the California Legislature enacted legislation resulting in the formation of the CVC where Section 46.1 was codified 'Tire chains' as, "…metal chains which consist of two circular metal loops, one on each side of the tire, connected by not less than nine evenly spaced chains across the tire tread.

In 1959, the CVC was renumbered and the definition for 'Tire chains' was re-designated Section 605 CVC, but the definition remained unchanged.

In 1963, Section 26103 CVC was amended deleting the term 'lighting' and inserting the term 'any' expanding the Department's authority to make or cause to be made scientific laboratory tests for approval of vehicle equipment.

In 1974, Section 605 CVC was amended by removing the previous construction requirements and instead requiring a performance standard, "…devices which are designed for use on tires to improve stopping, traction, and cornering ability upon snow or ice-covered surfaces.…" The amendment provided the Commissioner of the CHP the authority to adopt regulations regarding the type of the tire chains. The amendment also established a requirement that tire chains must comply with the regulations adopted by the Commissioner. This amendment included an urgency

clause indicating the Legislature determined there was an emergency need for the Commissioner to establish regulations regarding tire chains.

In 1980, Section 605 CVC was amended removing the previous authority granting the Commissioner the power to adopt regulations and removed the requirement for the tire chains to comply with those regulations. The section was reduced to a generic definition which only required devices to be designed to be used on tires to improve stopping, traction, and cornering ability upon snow and ice-covered surfaces.

In 1980, Section 26103 CVC was repealed and completely rewritten granting the Department the authority to adopt and enforce regulations establishing standards and specifications for lighting equipment, safety helmets, sirens, tire chains, bunk stakes, and synthetic binders unless a FMVSS covering the same aspect of performance of the device already exists.

In 1984, the legislature amended Section 605 CVC to include specific construction criteria in the definition of 'Tire chains'. The requirements were:

> "(1) Cross members are spaced to provide at least one cross member in contact with the roadway at all times.
> (2) Each cross member extends across at least 85 percent of the width of the tread.
> (3) Major traction elements at least 9/32 inch in height on each cross member at time of manufacture.
> (4) At least four separate steel elements are in contact with the roadway at all times on each cross member.
> (5) Each cross member is connected to two circular loops, one on each side of the tire, except for mechanisms designed to deploy and retract metal cross members under the tire when the vehicle is in motion."

The amendment included a sunset clause with a date of December 31, 1986.

In 1987, as a result of the sunset clause included in the 1984 amendment, Section 605 CVC was repealed in its entirety effective January 1, 1987.

In 1988, Section 605 CVC was reinstated in its previous form with a new sunset date of January 1, 1990.

In 1989, Section 26103 CVC is amended by replacing the term 'tire chains' with the term 'tire traction devices' giving credence to the premise the State Legislature wanted to broaden the Department's authority to adopt and enforce regulations for any type of device which may be utilized as a tire traction device and not limit the Department to tire chain regulation solely.

In 1990, as a result of the sunset clause, Section 605 CVC was again repealed in its entirety effective January 1, 1990. On May 1, 1990, as a result of an urgency clause, Section 605 CVC was reinstated; however, there were major changes to the section. The specific construction requirements were removed and the performance-based requirements were reinstated with additional manufacturing requirements. The section remains in this form today.

On October 30, 2015, the Caltrans Division of Research, Innovation, and System Information (DRISI) published their final report relating to researching and testing the durability of a cloth-based tire traction control device using three typical vehicles found on California's roadways. To test the durability of the cloth-based tire traction control devices, three vehicles were outfitted with cloth-based tire traction control devices and operated on a wet closed course to simulate winter driving conditions. Upon conclusion of the test, the DRISI recommended that Caltrans' Division of Maintenance and the CHP consider adopting criteria allowing alternative tire traction control devices to be used on roadways.

ECONOMIC IMPACT ASSESSMENT/ANALYSIS

Creation or Elimination of Jobs in the State of California

The CHP evaluated whether jobs would be affected in the State of California and initial determination regarding this proposed regulatory action has been determined. There is no indication businesses operating vehicles which utilize traction control devices will result in hiring more personnel, and it is not anticipated it will lead to layoffs or downsizing as a direct result of this rulemaking action. Additionally, tire traction devices are already prevalent; the use of a newer style traction device will not affect jobs. Therefore, the determination is it will neither create, nor eliminate jobs in the State of California, nor result in the elimination of existing businesses or create or expand businesses in the State of California. Additionally, this proposed regulatory action will not have a significant statewide adverse economic impact directly affecting businesses including the ability of California businesses to compete with businesses in other states.

Creation or Elimination of Businesses in the State of California

The CHP has not identified any significant adverse impact on creation or elimination of new businesses within the State of California. Since tire traction devices are already prevalent, the use a newer style of traction device will not affect businesses. Therefore, the CHP has not identified any significant adverse impact on businesses.

Expansion of Businesses in the State of California

The CHP has not identified any significant adverse impact on expansion of businesses currently doing business within the State of California. Since tire traction devices are already prevalent, the use a newer style of traction device will not affect businesses. Therefore, the CHP has not identified any significant adverse impact on the expansion of businesses.

Benefits of the Regulation

The CHP evaluated the potential benefits of this proposed regulatory action. This rulemaking action will ensure newly developed tire traction devices have been tested for safety and are equivalent or superior to the commonly used tire chains; therefore, contributing to the safety of the motoring public during times of inclement weather. The CHP has made an initial determination regarding this proposed regulatory action:

- Will have no effect on housing costs;

- Will impose no new mandate upon local agencies or school districts;

- Will involve no nondiscretionary cost or savings to any local agency, no cost to any local agency or school district for which Sections 17500-17630 of the Government Code require reimbursement, no cost or savings to any state agency, nor costs or savings in federal funding to the state;

- Will neither create or eliminate jobs in the State of California, nor result in the elimination of existing businesses, nor create or expand businesses in the State of California;

- Will continue to provide a nonmonetary benefit to the protection and safety of public health, employees, and safety to the environment by contributing to the safe operation of vehicles;

- Will have no significant statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states; and

- Will provide safety to the environment by contributing to the safe operation of vehicles.

FISCAL IMPACT TO THE STATE

The CHP has determined these regulation amendments will result in:

- No significant increase in costs for owners or operators of vehicles. This rulemaking action will simply provide guidance and clarification relating to the use of tire traction devices;

- No significant compliance cost for persons or businesses directly affected;

- No discernible adverse impact on the quantity and distribution of goods and services to large and small businesses or the public;

- No impact on the level of employment in the state; and

- No impact on the competitiveness of this state to retain businesses.

ALTERNATIVES

The CHP has not identified, nor been made aware of, an alternative that would be as effective and less burdensome to affected parties than the proposed action. Additionally, the CHP has not identified an alternative which would be more cost effective to affected parties and equally effective in implementing the statutory policy or other provision of law.

Alternatives Identified and Rejected

Alternative 1: *Do nothing and allow*: This alternative could potentially allow tire traction devices to be used on California's roads, which do not meet safety guidelines and standards.

Alternative 2: *Update Title 13, CCR to include regulations for alternate tire traction devices*: This is the alternative selected as it best meets the safety needs of the public and the CHP.