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Booster Cushions Safety Regulations



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Regulations Amending the Motor Vehicle Safety
Regulations (Seat Belt Anchorages, User-ready Tether
Anchorages, Lower Universal Anchorage Systems, Builtin Child Restraint Systems and Built-in Booster
Cushions) and the Motor Vehicle Restraint Systems and

Statutory authority

Motor Vehicle Safety Act

Sponsoring department

Department of Transport

REGULATORY IMPACT ANALYSIS STATEMENT

(This statement is not part of the Regulations.)

Description

The Department of Transport (the Department) proposes to amend Canada Motor Vehicle Safety Standards (CMVSS) 210, 210.1, 210.2 and 213.4, which are part of the *Motor Vehicle Safety Regulations* (MVSR). (see footnote 1) This amendment proposes to improve safety for children riding in most convertibles and open-body type vehicles by clarifying the requirement for tether anchorages; align the requirement for the total number of user-ready tether anchorage systems (URTA) with those of the U.S. National Highway Traffic Safety Administration (NHTSA) by requiring that multi-purpose passenger vehicles (MPVs) with five forward-facing designated seating positions (DSPs) be equipped with three URTA; align several other requirements with those of the NHTSA

Federal Motor Vehicle Safety Standard (FMVSS) 225, *Child Restraint Anchorage Systems*; amend CMVSS 210 to clarify the requirements for the installation of seat belt anchorages in buses with seat belt assemblies; harmonize the definition and the labelling requirements for built-in booster cushions with those for add-on booster cushions; and clarify several MVSR issues raised by the Standing Joint Committee for the Scrutiny of Regulations (SJC).

Background

On September 1, 2000, it became mandatory for all passenger cars, MPVs and trucks with a gross vehicle weight rating of 3 864 kg or less and an unloaded vehicle mass of 2 495 kg or less to be equipped with URTA for securing the tether straps on restraint systems. (see footnote 2) At that time, convertibles and open-body type vehicles were excluded from the CMVSS 210.1 *User-Ready Tether Anchorages for Restraint Systems* requirements. While convertibles and open-body type vehicles were excluded from the URTA requirements, CMVSS 210.2 *Lower Universal Anchorage Systems for Restraint Systems* (LUASs) standard required these vehicles to meet the prescribed strength testing using both the LUAS and the URTA. This discrepancy created enforcement issues and made it impossible to test convertibles and open-body type vehicles in accordance with the CMVSS 210.2 prescribed testing requirements. This situation also resulted in vehicles being sold in Canada that did not offer the same level of protection to children as offered in non-convertible passenger vehicles.

The Department is proposing to introduce a requirement for URTA in convertibles and in open-body type vehicles that have more than one row of seating positions. This will result in the requirement for some convertibles and open-body type vehicles to be equipped with URTA in addition to the current requirements for LUAS. It is expected that this proposal will resolve the current testing conflicts found within CMVSS 210.1 and 210.2, which require the testing load of 15 000 N be applied simultaneously to both the URTA and the lower anchors, even though URTA are not currently required on these vehicles.

The Department believes that this proposed amendment would provide children with a safer vehicle environment. Test data show that in the event of a collision, an attached tether will greatly improve the ability of a child restraint system to protect young passengers against head impact or hyperextension of the neck. (see footnote 3) An attached tether anchorage will provide a reduced hyperextension of the neck of 97 mm. Based on data available from collision reports, (see footnote 4) Transport Canada's Road Safety and Motor Vehicle Regulation Directorate reported that occupant restraint systems have been proven effective in reducing the risk of death by 47% and the risk of overall injuries by 17.8%.

The level of effectiveness of a universal anchorage system (UAS), which includes lower and top tether anchorages, depends upon a number of factors including how well motorists are able to install a child restraint device that includes a tether strap. Mandating an URTA in convertibles and open-body type vehicles will help increase the effectiveness of a child restraint system in this type of vehicle. This measure will also alleviate public confusion regarding which vehicle models are equipped with URTA.

When the URTA requirements originally came into force, vehicle manufacturers had expressed doubts about their ability to manufacture convertibles and open-body type vehicles with URTA. Since then, manufacturers have succeeded in equipping new

models with the required LUAS and their associated URTA. Currently, the Department is aware of at least eight convertible and open-body type vehicle models that are available with an URTA, representing over 60% of those types of vehicle sales for 2004. (see footnote 5) Hence, it is the Department's belief that vehicle manufacturers are now in a better position to provide this safety feature. To mitigate the related economic hardship on manufacturers, the proposed date of compliance for this added requirement is September 1, 2010. The Department believes that this introduction date will provide adequate time for manufacturers to complete any required adjustments to their vehicle models.

The Department proposes to continue exempting convertibles and open-body type vehicles that have only one row of seating from the URTA requirements. These vehicles frequently have designs which do not lend to the installation of URTA, and the Department estimates that they are not frequently used to transport infants and very young children. Also, these vehicles may be equipped with air bags which cannot be deactivated.

This proposed amendment would require convertible and open-body type vehicles which have two or more rows of seats to meet the static testing load level of 15 000 N for the combination testing of LUAS and URTA. To alleviate the interim burden on manufacturers, the Department proposes to allow convertibles and open-body type vehicles that are manufactured before September 1, 2010, without URTA, to be tested using an applied force of 11 000 N on the LUAS only. (see footnote 6) This would be compatible with the requirements found under the U.S. FMVSS 225. However, those convertibles and open-body type vehicles that are voluntarily equipped with both LUAS and URTA will still be allowed to be tested with a load of 15 000 N on the LUAS in combination with the associated URTA, as specified under the existing subsection 210.2(13). As of September 1, 2010, all convertibles and open-body type vehicles would be required to meet the 15 000 N requirements applied to both the LUAS and the URTA.

The Department is proposing to align the requirement for the total number of URTA with those of the NHTSA. Thus, the Department is proposing that MPVs with five forward-facing DSPs be equipped with three URTA. The Department will continue to require that three URTA be installed in MPVs with six or more DSPs and two URTA when there are less than five DSPs. Since MPVs are an increasingly popular vehicle choice with young families, the Department strongly believes that adding an additional tether anchorage in MPVs with five DSPs will increase safety for traveling children.

The Department proposes to align many of its requirements with those of equivalent FMVSS as follows:

- In October 2004, the NHTSA exempted "funeral coaches" (see footnote 7) from the requirements of FMVSS 225, thus this amendment proposes to introduce an exemption and definition for a "hearse";
- Revise the vertical positioning (see footnote 8) of the LUAS symbol to align with the current 100 mm upper limit of FMVSS 225;
- Align with the NHTSA definition for an open-body type vehicle; (see footnote 9) and

• Align with the NHTSA by including a figure depicting the length of the lower anchorage bars in CMVSS 210.2. (see footnote 10)

The Department is also proposing to correct an oversight in the MVSR. Currently, some buses under 4 536 kg are required to be equipped with seat belts, but no seat belt anchoring requirements are prescribed.

The Department is proposing to amend CMVSS 210 in order to have it apply to those passenger seats in buses, required to have seat belt assemblies installed. It is also being proposed to clarify that the instructions required in the owner's manual under CMVSS 210 should not apply to school buses. In addition, the Department is proposing to update the referenced requirement to specify the February 2001 version of the Society of Automotive Engineers (SAE) Recommended Practice J1100, *Motor Vehicle Dimensions*.

The Motor Vehicle Restraint Systems and Booster Cushions Safety Regulations (RSSR) require that every add-on booster cushion have a label affixed to it that indicates that the booster cushion is for use by children who weigh at least 18 kg (40 lb.). However, the requirements governing built-in booster cushions, as set out in the CMVSS 213.4, do not include any requirement for a minimum weight use limit. In order to ensure that the safety message being conveyed to the Canadian public is consistent across all booster cushion applications, the Department is proposing to amend the labelling requirement of CMVSS 213.4 to add the minimum weight use limit of 18 kg (40 lb.), thereby reconciling the minimum weight threshold between built-in and add-on booster cushions.

In addition, while reviewing the labelling requirements for built-in booster cushions, a vehicle manufacturer brought to the Department's attention that the use of the word "child" in the definition of a "built-in booster cushion" implied that the cushion was meant for use by a child as defined under subsection 2(1) of the MVSR. A child under the MVSR means a person whose mass is between 9 kg (20 lb.) and 22 kg (48 lb.) inclusive. Since the intention of the Department was to promote the use of a built-in booster cushion by persons that weigh 18 kg (40 lb.) or more, it is being proposed to amend the "built-in booster cushion" definition by replacing the term "child" by "person."

Furthermore, the current proposal includes modifications, which were proposed by the SJC, relating to definitions and terminology used within the MVSR. Following reviews of the Department's regulatory amendments, the SJC proposed that clarifications were required to several of the MVSR and RSSR. The proposed modifications described below are expected to have no impact on vehicle manufacturers. The clarifications relate to the compatibility of French and English definitions and other terminology within the MVSR and RSSR as summarized below:

- The English and French definitions of "seat belt anchorage" be clarified to make both definitions compatible;
- The French definition of "ceinture-baudrier" be clarified to better reflect the English version of the definition;
- The French definition of "ancrage du siège" be clarified to substitute the words "bâti du véhicule" by "structure du véhicule";

- The French definition of "dispositif universel d'ancrages d'attaches inférieurs" be clarified in the RSSR, as well as in the MVSR, in order to substitute the words "bâti du véhicule" by "structure du véhicule";
- The introductory expression "bâti supportant le siège" in the French version of paragraphs 202(2)(a) and 202(3)(e) be clarified to be "bâti du siège";
- Paragraph 208(23)(b) of the French version of the MVSR be clarified to better reflect the English version of the requirement;
- The English and French definitions of "seating reference point" be clarified in order to incorporate by reference the July 1995 version of SAE Recommended Practice J826 and the February 2001 version of SAE Recommended Practice J1100 and in turn all references to the latter in the MVSR be updated to the February 2001 version;
- The appropriate conversion methodology for numerical values be applied to subsection 210(7) by replacing 22 240 N with 22 241 N, subsection 210(8) by replacing 13 344 N with 13 345 N, subparagraph 210(4)(a)(iii) by replacing 63.5 mm with 64 mm and 9.5 mm with 10 mm and paragraph 210(10)(b) by replacing 304.8 mm with 305 mm, which aligns with the U.S. equivalent values; and
- The Test Method for CMVSS 210 is also being updated to reflect these adjusted values.

Effective date

It is proposed that the effective date of the amendments contained in this proposal will come into effect on the date of their registration by the Clerk of the Privy Council, except for section 13 of the amending Regulations which would come into force immediately after the coming into force of subsections 2(3) and (5) of the amending Regulations published as SOR/2006-94. However, many individual provisions within the proposed Regulations would have their own effective compliance date.

The Department welcomes comments on this proposal for 75 days after its publication in Part I of the *Canada Gazette*.

Alternatives

The Department considered the following alternatives:

- maintain the status quo;
- permit voluntary compliance by the industry; and
- introduce the proposed Regulations.

The Department determined that the current situation was unacceptable and thus this option was rejected. Maintaining the status quo regarding convertibles and open-body type vehicles would prevent enforcement of the standard and might contribute to public

confusion regarding the principle that a tether anchorage should be used with a child seat. Not equipping three tether anchorages in MPVs with five DSPs was not justified, since a growing number of Canadian families are choosing MPVs to transport their children. Moreover, the United States have already made it mandatory for manufacturers to comply with the tether anchorage requirement.

The Department considered and rejected permitting voluntary compliance with the proposed Regulations. Manufacturers might offer the URTA system on some of the products they sell in Canada but not on all vehicle models. The Department is concerned that this would cause unnecessary public confusion regarding appropriate installation procedures. The Department does not consider that a voluntary approach would result in the same level of safety as a regulated approach. In short, the benefits of a universal system outweigh the costs, and the benefits would be to society as a whole. For these reasons, this alternative was not adopted.

Because of the anticipated positive outcome of introducing new Regulations, no other alternatives to the proposed amendment were considered acceptable.

Benefits and costs

The estimated average cost to add one URTA system to a vehicle is less then a dollar. (see footnote 11) A manufacturer producing a convertible type vehicle with three rear DSPs would be required to install three URTA, for a total cost per vehicle of no more than \$3.00. The proposed amendment would give manufacturers until September 1, 2010, to comply with the new requirements for an URTA in convertibles and open-body type vehicles. The Department trusts that manufacturers will have sufficient time to consider whether changes are warranted and implement them in their next design phase.

The number of new convertibles and open-body type vehicles affected by this amendment is estimated to be 7 814 vehicles per year. Based on 2004 Canadian vehicle sales, (see footnote 12) the cost of the new requirements for URTA in those vehicles is therefore estimated to be negligible for the entire fleet.

This proposed amendment provides benefits by clarifying the testing procedures of LUAS in convertibles and open-body type vehicles. The public's perception of the importance and necessity of URTA systems is also reinforced by eliminating the exception currently provided for convertibles.

In the case of MPVs with five or more DSPs, a majority of manufacturers currently comply with requirements for a minimum of three DSPs with their associated URTA. This proposed requirement has been mandatory in the United States since August 31, 2002. It is also expected that the Department's proposal will harmonize with U.S. requirements for LUAS and URTA in MPVs and that the exemption for "hearses" will provide those vehicle manufacturers with financial relief. The proposed amendment will better protect children in an MPV by requiring an additional seating position for a child.

Under the Department's Strategic Environmental Assessment Policy, a preliminary evaluation of the possible effects of this amendment was done. It was determined that this proposed amendment would have no impact on the environment.

Consultation

General road safety consultation programs

The Department has instituted a systematic and extensive consultation process that is intended to keep the automotive industry, public safety organizations, and the general public informed of projected and recent changes to the regulatory requirements governing motor vehicle safety in Canada. This process includes consultations with the provinces and territories, as well as with the federal authorities of other countries, and it provides a mechanism for interested parties to comment on the Department's planned initiatives.

Meetings are held three times a year with the Canadian Vehicle Manufacturers' Association (CVMA), which represents Canada's leading motor vehicle manufacturers. (see footnote 13) Departmental representatives meet three times a year with the Association of International Automobile Manufacturers of Canada (AIAMC), which represents international motor vehicle manufacturers and importers. (see footnote 14) There are semi-annual meetings with the Motorcycle and Moped Industry Council and the Rubber Association of Canada, and semi-annual meetings are held with the U.S. Department of Transportation.

In addition, the Department is committed to the development of global regulations, an initiative that is being carried out under the auspices of the United Nations World Forum for the Harmonization of Vehicle Regulations. Along with members of other world regulatory bodies and public interest groups, departmental representatives participate in 11 or more meetings a year as part of the effort to develop Global Technical Regulations in order to simplify the regulatory process for automotive manufacturers who market their products internationally.

Mainly through the Department's membership in the Canadian Council of Motor Transport Administrators (CCMTA), consultations that deal with a broad range of issues take place on a regular basis with the provinces and territories. There are also semi-annual meetings with national public safety organizations in order to discuss future regulatory changes and emerging safety problems.

Specific consultation on URTA and LUAS in convertibles

Preliminary consultations with the automotive industry were conducted in 2003 and 2004 on the Department's intentions to amend CMVSS 210, 210.1 and 210.2. While manufacturers were open to the Department's intentions, their responses indicated that the proposal would need minor modifications. One suggested modification was to allow for tether strap routing devices to be used in convertibles and open-body type vehicles for the use of the URTA. This allowance would be for scenarios where vehicle models have active pop-up rollover protection in the area of the URTA. Since the provisions under CMVSS 210.1 already allow for a routing device in prescribed classes of vehicles to which these Regulations apply, which would include convertibles and open-body type vehicles, the Department does not believe there would be any benefit in amending subsection 210.1(7) to specifically include all applicable classes of vehicles.

Another comment related to the effective date for the URTA in convertibles and openbody type vehicles. Manufacturers indicated that September 1, 2010, would allow for sufficient lead-time to design, develop and produce vehicle models to the proposed requirements.

A proposition was also made by manufacturers to clarify when the URTA must be accessible. In some cases, a convertible or open-body type vehicle could have its URTA accessible only when the roof is deployed, and not when the roof is in the stowed position. The Department invites stakeholders to comment on this specific scenario.

A consultation period of 75 days will follow the publication of this proposal in the *Canada Gazette*, Part I. Comments may be made by writing to the address given below or at any government-industry meeting. All responses will be taken into consideration in the development of the final amendment.

In addition to this proposed amendment, the Department would appreciate comments from stakeholders on a minor difference between FMVSS 210 and CMVSS 210. The item in question regards a distinction made under CMVSS 210 that provides an option to adjust the seat belt anchorages at the position that is suitable for a 50th percentile adult male, if that position is specified in the owner's manual. Since FMVSS 210 does not offer this option, Transport Canada would like comments on whether this provision is still needed.

Compliance and enforcement

Motor vehicle manufacturers and importers are responsible for ensuring that their products comply with the requirements of the *Motor Vehicle Safety Regulations*. The Department of Transport monitors self-certification programs of manufacturers and importers by reviewing their test documentation, inspecting vehicles, and testing vehicles obtained in the open market. When a defect is found, the manufacturer or importer must issue a notice of defect to owners and to the Minister of Transport. If a vehicle does not comply with a safety standard, the manufacturer or importer may be subject to prosecution and, if found guilty, may be fined as prescribed in the *Motor Vehicle Safety Act*.

Contact

For further information, please contact Jay Rieger, Road Safety and Motor Vehicle Regulation Directorate, Department of Transport, 330 Sparks Street, Ottawa, Ontario K1A 0N5, 613-998-1962 (telephone), 613-990-2913 (fax), riegerj@tc.gc.ca (email).

Copies of proposed *Test Method 210* — *Seat Belt Anchorages* may be obtained on the Internet at www.tc.gc.ca/RoadSafety/mvstm_tsd/index_e.htm.

PROPOSED REGULATORY TEXT

Notice is hereby given, pursuant to subsection 11(3) of the *Motor Vehicle Safety Act* (see footnote a), that the Governor in Council, pursuant to section 5 (see footnote b) and subsection 11(1) of that Act, proposes to make the annexed *Regulations Amending the Motor Vehicle Safety Regulations* (Seat Belt Anchorages, User-ready Tether Anchorages, Lower Universal Anchorage Systems, Built-in Child Restraint Systems and Built-in Booster Cushions) and the Motor Vehicle Restraint Systems and Booster Cushions Safety Regulations.

Interested persons may make representations with respect to the proposed Regulations to the Minister of Transport, Infrastructure and Communities within 75 days after the date of publication of this notice. All representations must be in writing and cite the *Canada Gazette*, Part I, and the date of publication of this notice, and be sent to Jay Rieger, Senior Regulatory Development Engineer, Road Safety and Motor Vehicle Regulation Directorate, Department of Transport, Place de Ville, Tower C, 8th Floor, 330 Sparks Street, Ottawa, Ontario K1A 0N5 (tel: (613) 998-1962; fax: (613) 990-2913; e-mail: riegerj@tc.gc.ca).

Persons making representations should identify any of those representations the disclosure of which should be refused under the *Access to Information Act*, in particular under sections 19 and 20 of that Act, and should indicate the reasons why and the period during which the representations should not be disclosed. They should also identify any representations for which there is consent to disclosure for the purposes of that Act.

Ottawa, November 9, 2006

MARY O'NEILL Assistant Clerk of the Privy Council

REGULATIONS AMENDING THE MOTOR VEHICLE SAFETY REGULATIONS (SEAT BELT ANCHORAGES, USER-READY TETHER ANCHORAGES, LOWER UNIVERSAL ANCHORAGE SYSTEMS, BUILT-IN CHILD RESTRAINT SYSTEMS AND BOOSTER CUSHIONS) AND THE MOTOR VEHICLE RESTRAINT SYSTEMS AND BOOSTER CUSHIONS SAFETY REGULATIONS

MOTOR VEHICLE SAFETY REGULATIONS

Amendments Effective on the Date of Registration

1. (1) The definitions "built-in booster cushion", "open-body type vehicle", "seat belt anchorage" and "seating reference point" in subsection 2(1) of the *Motor Vehicle Safety Regulations* (see footnote 15) are replaced by the following:

"built-in booster cushion" means a device that is designed as an integral part of a vehicle seating system, for the purpose of seating a person who weighs at least 18 kg (40 pounds) in an elevated position on the vehicle seat in order to adapt an adult seat belt assembly of the motor vehicle to the person; (coussin d'appoint intégré)

"open-body type vehicle" means a vehicle that has no top over the occupant compartment or that has a top over the occupant compartment that can be installed or removed by the operator of the vehicle; (*véhicule de type ouvert*)

"seat belt anchorage" means any component of a vehicle, other than the webbing or straps, involved in transferring seat belt loads to the vehicle structure, including the attachment hardware, seat frames, seat pedestals, the vehicle structure and any part of the vehicle the failure of which causes separation of the belt from the vehicle structure; (ancrage de ceinture de sécurité)

- "seating reference point" means the unique Design H-Point, as defined in section 3.11.1 of SAE Recommended Practice J1100, *Motor Vehicle Dimensions* (February 2001), that
- (a) establishes the rearmost normal design driving or riding position of each designated seating position, taking into account all modes of adjustment horizontal, vertical and tilt in a vehicle.
- (b) has X, Y and Z coordinates, as defined in section 3.3 of SAE Recommended Practice J1100, *Motor Vehicle Dimensions* (February 2001), established relative to the designed vehicle structure,
- (c) simulates the position of the pivot centre of the human torso and thigh, and
- (d) is the reference point employed to position the H-Point template with the 95th percentile leg, as described in section 4.1 of SAE Standard J826, *Devices for Use in Defining and Measuring Vehicle Seating Accommodation* (July 1995), or, if that template cannot be positioned, the reference point when the seat is in its rearmost adjustment position; (point de référence de position assise)
- (2) The definitions "ancrage du siège", "ceinture-baudrier" and "dispositif universel d'ancrages d'attaches inférieurs" in subsection 2(1) of the French version of the Regulations are replaced by the following:
- « ancrage du siège » Toute pièce qui transmet à la structure du véhicule les forces exercées sur le siège du véhicule. (seat anchorage)
- « ceinture-baudrier » S'entend de la partie d'une ceinture de sécurité qui a pour objet de restreindre le mouvement au niveau de la poitrine et des épaules. (*upper torso restraint*)
- « dispositif universel d'ancrages d'attaches inférieurs » Dispositif, autre qu'une ceinture de sécurité, qui est conçu pour assujettir la partie inférieure d'un ensemble de retenue ou d'un coussin d'appoint au véhicule et qui transmet à la structure du véhicule ou au siège les forces exercées par l'ensemble de retenue ou le coussin d'appoint et par l'occupant de l'un ou de l'autre. (lower universal anchorage system)
- (3) Subsection 2(1) of the Regulations is amended by adding the following in alphabetical order:

"hearse" means a vehicle that contains only one row of occupant seats, is designed exclusively for transporting a body and casket and that is equipped with features to secure a casket in place during the operation of the vehicle; (corbillard)

- (4) Subsection 2(2) of the Regulations is replaced by the following:
- (2) In the case of any bench or split-bench seat having more than 1 270 mm of hip room, as measured in accordance with sections 6.1.34, 6.2.31 and 6.4.27 of SAE Recommended Practice J1100, *Motor Vehicle Dimensions* (February 2001), in a passenger car, truck or multi-purpose passenger vehicle having a GVWR of less than 4 536 kg, the seat shall be deemed to contain not less than three designated seating

positions unless the seat design or vehicle design is such that the centre position is not capable of being used as a seating position.

- 2. Subsection 111(14) of Schedule IV to the Regulations is amended by adding the word "and" at the end of paragraph (a) and by replacing paragraphs (b) and (c) with the following:
- (b) "heel point" referred to in that Recommended Practice and in other documents referenced in that Recommended Practice means the "accelerator heel point (AHP)" as defined in section 3.16.1 of SAE Recommended Practice J1100, *Motor Vehicle Dimensions* (February 2001), and the position of the heel point is that determined by the manufacturer.
- 3. Subparagraph 115(2)(c)(ii) of Schedule IV to the Regulations is replaced by the following:
 - (ii) located inside the occupant compartment, and
- 4. (1) Paragraph 202(2)(a) of Schedule IV to the French version of the Regulations is replaced by the following:
- a) soit, lorsque le bâti du siège est soumis à un essai comportant une accélération avant d'au moins 8 g, limite le mouvement angulaire vers l'arrière de la ligne de référence de la tête à 45° par rapport à la ligne de référence du torse;
- (2) Paragraph 202(3)(e) of Schedule IV to the French version of the Regulations is replaced by the following:
- e) une accélération avant doit être appliquée au bâti du siège de sorte que, lorsqu'elle est représentée graphiquement, l'ampleur de la courbe d'accélération soit comprise entre une demi-sinusoïde d'amplitude 8 g et d'une durée de 80 millisecondes et une demi-sinusoïde d'amplitude 9,6 g et d'une durée de 96 millisecondes;
- 5. Paragraph 204(4)(c) of Schedule IV to the Regulations is replaced by the following:
- (c) convertible and open-body type vehicles have the top, if any, correctly in place in the configuration of a closed occupant compartment;
- 6. (1) Paragraph 208(22)(a) of Schedule IV to the Regulations is replaced by the following:
- (a) each anthropomorphic test device shall be completely contained within the outer surface of the vehicle occupant compartment;
- (2) Paragraph 208(23)(b) of Schedule IV to the French version of the Regulations is replaced by the following:

- b) le véhicule, qui se déplace longitudinalement vers l'avant à une vitesse d'au plus 48 km/h, heurte une barrière fixe formant un angle de 90° ± 5° avec l'axe de déplacement du véhicule;
- (3) The portion of subsection 208(26) of Schedule IV to the English version of the Regulations before paragraph (a) is replaced by the following:
- (26) Where a vehicle is equipped at a designated seating position with an air bag, the vehicle shall, if scheduled maintenance or replacement of the air bag is required, have a label permanently affixed within the occupant compartment of the vehicle stating, in letters of not less than 6 points in height, in both official languages, the manufacturer's recommended maintenance or replacement schedule by

7. (1) Subsections 210(1) to (2.1) of Schedule IV to the Regulations is replaced by the following:

- **210.** (1) The following seat belt anchorages shall be installed in a designated seating position in respect of which a seat belt assembly has been installed pursuant to section 208:
- (a) where a Type 1 seat belt assembly has been installed, seat belt anchorages for a pelvic restraint; or
- (b) where a Type 2 seat belt assembly has been installed, seat belt anchorages for a combination pelvic and upper torso restraint.
- (2) Only the strength test requirements set out in subsections (7) to (10) apply to enclosed motorcycles.
- (2) Subparagraph 210(4)(a)(iii) of Schedule IV to the Regulations is replaced by the following:
 - (iii) in the case of a seat with a travel of more than 70 mm, a point 64 mm to the fore of, and 10 mm above, the seating reference point
- (3) Paragraph 210(5)(a) of Schedule IV to the Regulations is replaced by the following:
- (a) the H-Point of the template is located at the unique Design H-Point of the seat, as defined in section 3.11.1 of SAE Recommended Practice J1100, *Motor Vehicle Dimensions* (February 2001), at the full rearward and full downward position of the seat; and
- (4) Subsections 210(7) and (8) of Schedule IV to the Regulations are replaced by the following:
- (7) Except in the case of side-facing seats, when the seat belt anchorages for a Type 1 seat belt assembly or for the pelvic portion of a Type 2 seat belt assembly that is equipped with a detachable upper torso restraint are tested for strength in accordance

with *Test Method 210* — *Seat Belt Anchorages* (January 2006) by applying a force of 22 241 N, none of the seat belt anchorages shall separate completely from the vehicle structure or seat structure.

(8) When the seat belt anchorages for the pelvic portion and for the upper torso portion of a Type 2 seat belt assembly are tested for strength in accordance with *Test Method 210* — *Seat Belt Anchorages* (January 2006) by simultaneously applying a force of 13 345 N, none of the seat belt anchorages shall separate completely from the vehicle structure or seat structure.

(5) Paragraph 210(10)(b) of Schedule IV to the Regulations is replaced by the following:

(b) laterally adjacent but not common to the same seat and at least one of the anchorages is located within 305 mm of the anchorage for the adjacent seating position, as measured between the vertical centrelines of the bolt holes or, in designs using another means of attachment to the vehicle structure, the centroids of such means.

(6) Subsection 210(11) of Schedule IV to the Regulations is replaced by the following:

(11) The English and French versions of the owner's manual for a three-wheeled vehicle, passenger car, multi-purpose passenger vehicle, bus or truck with a GVWR of 4 536 kg or less and rear designated seating positions, other than a school bus, shall contain a statement indicating that children and infants are safer when properly restrained in a child restraint system or infant restraint system secured in a rear seating position.

8. (1) Subsection 210.1(2) of Schedule IV to the Regulations is replaced by the following:

- (2) This section does not apply to
- (a) a convertible, before September 1, 2010;
- (b) an open-body type vehicle, before September 1, 2010;
- (c) a designated seating position at which a built-in child restraint system is provided that is not part of a removable vehicle seat; or
- (d) a hearse.

(2) The portion of subsection 210.1(3) of Schedule IV to the Regulations before paragraph (e) is replaced by the following:

- (3) Subject to subsection (3.3), a user-ready tether anchorage shall be installed
- (a) for each forward-facing designated seating position, other than that of the driver, in a vehicle, other than a convertible or an open-body type vehicle, that has only one row of

forward-facing designated seating positions;

- (b) for each forward-facing designated seating position in the second row of seating positions in a passenger car, three-wheeled vehicle, truck, convertible or open-body type vehicle;
- (c) for all forward-facing designated seating positions that are located to the rear of the first row of designated seating positions in a multi-purpose passenger vehicle that has less than five designated seating positions;
- (d) for each of any three forward-facing designated seating positions that are located to the rear of the first row of designated seating positions in a multi-purpose passenger vehicle that has five or more designated seating positions;
- (3) Subsection 210.1(3.2) of Schedule IV to the Regulations is repealed.
- (4) The portion of subsection 210.1(5) of Schedule IV to the Regulations before subparagraph (a)(ii) is replaced by the following:
- (5) Subject to subsection (7), the portion of each user-ready tether anchorage that is designed to bind with a tether strap hook shall be located within the shaded zone, as shown in Figures 3 to 7, of the designated seating position for which it is installed, with reference to the H-Point of a template described in section 4.1 of SAE Standard J826, Devices for Use in Defining and Measuring Vehicle Seating Accommodation (July 1995), if
- (a) the H-Point of the template is located
 - (i) at the unique Design H-Point of the designated seating position, as defined in section 3.11.1 of SAE Recommended Practice J1100, *Motor Vehicle Dimensions* (February 2001), at the full downward and full rearward position of the seat, or
- (5) Subsection 210.1(6) of Schedule IV to the Regulations is repealed.
- (6) Paragraph 210.1(7)(c) of Schedule IV to the Regulations is replaced by the following:
- (c) when tested after being installed as it is intended to be used, is of sufficient strength to withstand, with the user-ready tether anchorage, the force referred to in subsection (8).
- (7) The portion of subsection 210.1(8) of Schedule IV to the Regulations before subparagraph (a)(i) is replaced by the following:
- (8) Subject to subsection (10), every user-ready tether anchorage in a row of designated seating positions shall, when tested, withstand the application of a force of 10 000 N
- (a) applied by means of one of the following types of test devices, installed as a child restraint system would be in accordance with the vehicle manufacturer's installation

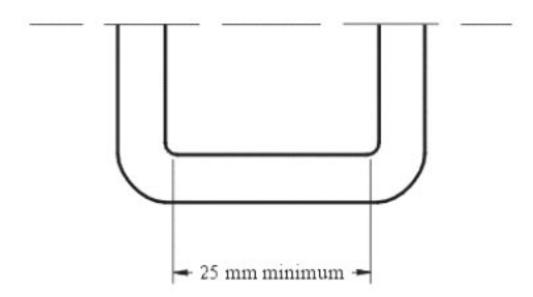
instructions, namely,

- (8) Subsections 210.1(9) to (11) of Schedule IV to the Regulations are replaced by the following:
- (10) If the zones in which tether anchorages are located overlap and if, in the overlap area, a user-ready tether anchorage is installed that is designed to accept the tether strap hooks of two restraint systems simultaneously, both portions of the tether anchorage that are designed to bind with a tether strap hook shall withstand the force referred to in subsection (8) applied to both portions simultaneously.
- (11) If a row of designated seating positions has more than one user-ready tether anchorage and a distance of 400 mm or more, measured in accordance with Figure 20, separates the midpoints of adjacent designated seating positions, the force referred to in subsection (8) or (10), as the case may be, shall be applied simultaneously to each user-ready tether anchorage in the manner specified in that subsection.
- (9) Figures 8 to 11 and 19 of section 210.1 of Schedule IV to the Regulations are repealed.
- 9. (1) Subsection 210.2(2) of Schedule IV to the Regulations is amended by adding the word "or" at the end of paragraph (c) and by adding the following after paragraph (c):
- (d) a hearse.
- (2) Paragraph 210.2(3)(b) of Schedule IV to the Regulations is replaced by the following:
- (b) have a diameter of 6 mm \pm 0.1 mm and a length, measured in accordance with Figure 12, of not less than 25 mm;
- (3) Paragraphs 210.2(3)(*d*) and (*e*) of Schedule IV to the French version of the Regulations are replaced by the following:
- d) elles sont une partie intégrante et permanente du siège, de l'ancrage de celui-ci ou de la structure du véhicule de manière qu'elles ne puissent être enlevées qu'à l'aide d'outils;
- e) elles sont fixées rigidement au siège, à l'ancrage de celui-ci ou à la structure du véhicule de manière que, le siège étant réglé dans le véhicule dans sa position la plus reculée et la plus basse et le dossier se trouvant dans la position assise nominale, elles ne puissent se déformer de plus de 5 mm lorsqu'elles sont assujetties à une force de 100 N dans une quelconque direction;
- (4) Paragraph 210.2(4)(c) of Schedule IV to the Regulations is replaced by the following:
- (c) for each of any two forward-facing designated seating positions that are located to the rear of the first row of designated seating positions in a multi-purpose passenger vehicle

that has more than one row of seating positions, but at least one of the lower universal anchorage systems must be installed in a seating position in the second row of seating positions;

- (5) Subsections 210.2(5) and (6) of Schedule IV to the Regulations are replaced by the following:
- (6) A lower universal anchorage system shall be installed only at a designated seating position that is equipped with a user-ready tether anchorage.
- (6.1) A convertible or an open-body type vehicle need not comply with subsection (6) until September 1, 2010.
- (6) The portion of subsection 210.2(13) of Schedule IV to the French version of the Regulations before paragraph (a) is replaced by the following:
- (13) Lorsqu'il est mis à l'essai, le dispositif universel d'ancrages d'attaches inférieurs installé dans une rangée de places assises désignées ne doit se dégager complètement ni du siège du véhicule, ni de l'ancrage du siège, ni de la structure du véhicule, sous l'action :
- (7) The portion of paragraph 210.2(13)(a) of Schedule IV to the Regulations before subparagraph (i) is replaced by the following:
- (a) subject to subsection (15), by pulling with a force of 15 000 N, which force is
- (8) Subsections 210.2(14) and (15) of Schedule IV to the Regulations are replaced by the following:
- (14) When a force of 5 000 N is applied in accordance with paragraph (13)(*b*), the lower universal anchorage system shall not permit the X point on the test device to be displaced in the direction of the applied force by more than 125 mm if the test device is installed in an outboard designated seating position or by more than 150 mm if the test device is installed in an inboard designated seating position.
- (15) Before September 1, 2010, instead of being tested by the application of a force of 15 000 N in accordance with paragraph 13(a), a lower universal anchorage system installed in a designated seating position that is not equipped with a user-ready tether anchorage shall be tested by the application of a force of 11 000 N that is
- (a) applied by means of a test device shown in Figures 7 and 8 that is installed using only the lower universal anchorage system;
- (b) applied in a forward direction parallel to the vehicle's vertical longitudinal plane through the X point on the test device, starting with a pre-load force of 500 N, maintained for at least two minutes but not more than five minutes; (c) applied initially, along a line above the horizontal line, at an angle of 10° +/- 5° to it;
- (d) attained within 30 seconds, at any onset force rate of not more than 135 000 N/s; and

- (e) maintained at a level of 11 000 N for a minimum of one second.
- (9) The portion of subsection 210.2(18) of Schedule IV to the Regulations before paragraph (a) is replaced by the following:
- (18) Subject to subsections (19) and (20), if a lower universal anchorage system is not visible along a line making an upward angle of at least 30° with the horizontal plane without compression of the seat cushion or seat back of the seating position, the presence of each bar of the system shall be indicated by the symbol shown in Figure 10, consisting of a circle containing a pictogram, which symbol shall meet the following conditions:
- (10) Subsection 210.2(21) of Schedule IV to the Regulations is repealed.
- (11) Paragraph 210.2(22)(b) of Schedule IV to the Regulations is repealed.
- (12) Note 2 to Figure 11 of Section 210.2 of Schedule IV to the Regulations is replaced by the following:
- 2. 50 mm \leq a \leq 100 mm.
- (13) Section 210.2 of Schedule IV to the Regulations is amended by adding the following after Figure 11:



Note: Drawing not to scale

Figure 12 — Width of Lower Universal Anchorage Bar, Top View

10. Subsection 212(2) of Schedule IV to the French version of the Regulations is replaced by the following:

(2) Lorsqu'un véhicule, préparé et chargé selon les paragraphes (5) à (7), qui avance en ligne droite à une vitesse d'au plus 48 km/h (30 mi/h), percute une barrière fixe pour essais de collision perpendiculaire à son axe de déplacement, le cadre de son pare-brise doit, lorsqu'il est mis à l'essai conformément au paragraphe (8), retenir au moins la périphérie de pare-brise minimale prévue aux paragraphes (3) ou (4).

11. (1) The portion of paragraph 213.4(4)(a) of Schedule IV to the Regulations before subparagraph (i) is replaced by the following:

(a) subject to subsection (6), provide restraint against rearward movement of the head of the anthropomorphic test device by means of a continuous seat back that is an integral part of the cushion and that

(2) Paragraph 213.4(5)(*d*) of Schedule IV to the Regulations is replaced by the following:

(*d*) subject to subsection (6), provide restraint against rearward movement of the head of the anthropomorphic test device by means of a continuous seat back that is an integral part of the system and that limits the rearward rotation of the anthropomorphic test device's head so that the angle between the head and the torso is at no time during the impact testing greater than 45° as compared to the head-torso angle prior to the test.

(3) Paragraph 213.4(17)(a) of Schedule IV to the Regulations is replaced by the following:

(a) a statement indicating

- (i) in the case of a built-in child restraint system, the weight and height range of the children for whom it is designed, as recommended by the manufacturer, and
- (ii) in the case of a built-in booster cushion, that it is for use by persons who weigh at least 18 kg (40 pounds) and who are at least the minimum height recommended by the manufacturer;

(4) Subsections 213.4(18) and (19) of Schedule IV to the Regulations are replaced by the following:

- (18) The weights and heights referred to in paragraph (17)(a) shall be expressed with the metric measurements stated first, followed by the equivalent imperial measurements in parentheses.
- (19) Every built-in child restraint system and built-in booster cushion shall be accompanied by printed instructions in both English and French that provide a step-by-step procedure, including appropriate diagrams, for using the built-in child restraint system or built-in booster cushion, for positioning a person in the system or on the cushion, for adjusting the belts provided and, where applicable, for adjusting the restraint harness to fit the person.

12. Subsection 219(3) of Schedule IV to the French version of the Regulations is

replaced by the following:

- (3) Lorsqu'un véhicule préparé conformément au paragraphe (6) et se déplaçant longitudinalement vers l'avant à une vitesse d'au plus 48 km/h (30 mi/h), heurte une barrière de collision fixe et perpendiculaire à sa ligne de déplacement, aucune de ses parties extérieures à l'habitacle, à l'exception des moulures du pare-brise ou autres composantes conçues pour être normalement en contact avec le pare-brise, ne doit pas pénétrer :
- a) soit le gabarit de zone protégée jusqu'à une profondeur supérieure à 6 mm (1/4 po);
- b) soit la surface interne de la partie du pare-brise qui se trouve dans l'OJ, au-dessous de la zone protégée.

Amendments Coming into Force Immediately after the Coming into Force of Certain Provisions of the Regulations Amending the Motor Vehicle Safety Regulations (Standards 210.1 and 210.2)

- 13. (1) The portion of subsection 210.1(5) of Schedule IV to the Regulations before paragraph (a) is replaced by the following:
- (5) Subject to subsections (5.1) and (7), the portion of each user-ready tether anchorage that is designed to bind with a tether strap hook shall be located within the shaded zone as shown in Figures 3 to 7 of the designated seating position for which it is installed, with reference to the H-Point of a template described in section 4.1 of SAE Standard J826, *Devices for use in Defining and Measuring Vehicle Seating Accommodation* (July 1995), if
- (2) Subsection 210.1(11) of Schedule IV to the Regulations is replaced by the following:
- (11) If a bench seat in a bus or a row of designated seating positions in another vehicle has more than one user-ready tether anchorage and a distance of 400 mm or more, measured in accordance with Figure 20, separates the midpoints of adjacent designated seating positions, the force referred to in subsection (8) or (10), as the case may be, shall be applied simultaneously to each user-ready tether anchorage in the manner specified in the relevant subsection.

MOTOR VEHICLE RESTRAINT SYSTEMS AND BOOSTER CUSHIONS SAFETY REGULATIONS

- 14. The definition "dispositif universel d'ancrages d'attaches inférieurs" in subsection 1(1) of the French version of the *Motor Vehicle Restraint Systems and Booster Cushions Safety Regulations* (see footnote 16) is replaced by the following:
- « dispositif universel d'ancrages d'attaches inférieurs » Dispositif, autre qu'une ceinture de sécurité, qui est conçu pour assujettir la partie inférieure d'un ensemble de retenue ou d'un coussin d'appoint au véhicule et qui transmet à la structure du véhicule ou au siège les forces exercées par l'ensemble de retenue ou le coussin d'appoint et par l'occupant de l'un ou de l'autre. (*lower universal anchorage system*)

COMING INTO FORCE

- 15. (1) These Regulations, except section 13, come into force on the day on which they are registered.
- (2) Section 13 comes into force immediately after the coming into force of subsections 2(3) and (5) of the *Regulations Amending the Motor Vehicle Safety Regulations (Standards 210.1 and 210.2)*, as enacted by Order in Council P.C. 2006-378, dated May 11, 2006, and registered as SOR/2006-94.

[46-1-0]

Footnote 1

C.R.C., c. 1038

Footnote 2

SOR/98-457

Footnote 3

Society of Automotive Engineers, Inc. (SAE), 973304, *The Effect of Top Tether Strap Configurations on Child Restraint Performance*, France Legault, Bill Gardner and Alex Vincent, Transport Canada, 1997

Footnote 4

Transport Canada; TP13110, Estimation Methodologies for Assessing Effectiveness of Seat Belt Restraint Systems and the National Occupant Restraint Program

Footnote 5

Transport Canada, unpublished survey of Canadian available convertibles with user-ready tether anchorages, Jean-François Lalande-Lacoursière, 2005

Footnote 6

NHTSA, Final Rule of (38227 Federal Register / Vol. 68, No. 124 / Friday, June 27, 2003 / Rules and Regulations)

Footnote 7

NHTSA, Final Rule of (61155 Federal Register / Vol. 69, No. 199 / Friday, October 15, 2004 / Rules and Regulations)

Footnote 8

NHTSA, Final Rule of (48823 and 48825 Federal Register / Vol. 69, No. 154 / Wednesday, August 11, 2004 / Rules and Regulations)

Footnote 9

49 CFR, C. V (10-1-04 Edition), § 571.3 Definitions, page 192

Footnote 10

NHTSA, Final Rule of (48824 Federal Register / Vol. 69, No. 154 / Wednesday, August 11, 2004 / Rules and Regulations)

Footnote 11

SOR/98-457

Footnote 12

"2004 Canadian Light Vehicle Sales by Segment and Model," *Canadian Autoworld*, February 2005

Footnote 13

The CVMA represents DaimlerChrysler Canada Inc.; Ford Motor Company of Canada, Limited; General Motors of Canada Limited; and International Truck and Engine Corporation Canada.

Footnote 14

The AIAMC represents the following automotive manufacturers and importers as voting members: BMW Canada Inc.; Honda Canada Inc.; Hyundai Auto Canada; Kia Canada Inc.; Mazda Canada Inc.; Mercedes-Benz Canada Inc.; Mitsubishi Motor Sales of Canada, Inc.; Nissan Canada Inc.; Porsche Cars Canada Ltd.; Subaru Canada Inc.; Suzuki Canada, Inc.; Toyota Canada Inc.; and Volkswagen Canada Inc.

Footnote a

S.C. 1993, c. 16

Footnote b

S.C. 1999, c. 33, s. 351

Footnote 15

C.R.C., c. 1038

Footnote 16

SOR/98-159

NOTICE:

The format of the electronic version of this issue of the *Canada Gazette* was modified in order to be compatible with hypertext language (HTML). Its content is very similar except for the footnotes, the symbols and the tables.



Important notices

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