Memorandum of Understanding (MOU) on Vehicle Compatibility

From: Transport Canada

The purpose of this MOU between Transport Canada and «COMPANY» is to set out the general terms and conditions with regard to marketing in Canada, vehicles designed in accordance with the performance criteria contained in Attachment A, as amended from time to time.

Attachment A defines the vehicle performance criteria for enhancing crash compatibility as well as the anticipated timing by which «COMPANY» commits to implement these criteria for vehicles it markets in Canada.

This non-regulatory program, while considered acceptable to both parties concerned, does not preclude the Government of Canada from introducing vehicle compatibility regulations under the authority of the Canada *Motor Vehicle Safety Act*. The Government's regulatory process will provide the opportunity for input, comment, lead time and fair notice prior to the introduction of such a regulation.

Principles:

The parties to this MOU recognize and acknowledge:

- The integrated nature of the motor vehicle manufacturing industry and the commitment of Transport Canada and the motor vehicle manufacturing industry to work towards North American and ultimately world-wide harmonization of standards relating to vehicle-to-vehicle

crash compatibility, and

- The value of enhancing vehicle-to-vehicle crash compatibility.

Agreement:

In recognition of these principles, both parties understand and mutually agree that:

- Concurrent with the signing of this MOU, «COMPANY» will begin marketing vehicles in Canada that have been designed in accordance with the performance and implementation criteria contained in Attachment A with the exception of those vehicles exempted by that Attachment.

- By September 1st, 2009, all of «COMPANY's» new passenger cars and light duty trucks produced for sale in Canada, will be designed in accordance with the performance and implementation criteria set out in Attachment A with the exception of those vehicles exempted by that Attachment.

- Beginning November 1st, after the signing of the MOU, and on each November 1st thereafter, through to and including November 1st, 2009, for the applicable model year vehicles, «COMPANY» shall provide to Transport Canada, a list identifying which new vehicle designs are in accordance with the front-to-front and/or front-to-side performance criteria set out in Attachment A. This information may be publicly disclosed by Transport Canada on its web site in a mutually-agreeable format.

- Upon receipt of a written request, «COMPANY» shall provide to Transport Canada, confirmatory data and/or engineering analyses demonstrating that vehicle designs are in accordance with the front-to-front and/or front-to-side performance criteria set out in Attachment A. This information may be submitted on a confidential basis and, subject to Canadian law, will be kept confidential by Transport Canada.

Termination:

This MOU shall remain in effect until both parties mutually agree that such an understanding is no longer desirable. Notwithstanding the preceding, in the event of changes to any Canadian or U.S. regulatory requirements, which «COMPANY» determines make fulfillment of its obligations, as set out in this MOU, impracticable, «COMPANY» reserves the right to terminate this MOU with 90 days advance written notice to Transport Canada. Said notification shall include supporting documentation for this decision. The Minister or his duly authorized representative will notify all other participating vehicle manufacturers listed in Attachment B in the event that this MOU has been terminated.

_____

Name and Title

_____

Name and Title

_____

Signature

«COMPANY»

Date_____

_____

Signature

Transport Canada

Date_____

ATTACHMENT A

INTRODUCTION

Motor vehicle safety is a shared responsibility of manufacturers, consumers, and governments. Individual vehicle manufacturers have made changes in their vehicles over the years to enhance crash compatibility. Yet individual efforts are only the beginning. Even greater safety benefits can be achieved if industry works together. Moreover, improving compatibility is an ongoing effort. As the research in vehicle-to-vehicle crash compatibility progresses, there may be a need to reassess or refine aspects of the performance criteria contained herein.

1.0 FRONT-TO-SIDE CRASHES

1.1 PERFORMANCE CRITERIA & IMPLEMENTATION

Enhancing Self-Protection

Participating manufacturers will begin designing new passenger cars and light trucks, with GVWRs less than 3856 kg (8500 pounds) in accordance with one of the following two head-protection alternatives:

Option 1: HIC_{36} performance of 1000 or less for a SID/H3 crash dummy in the driver's seating position in an FMVSS 201 pole impact test[1], OR;

Option 2: HIC_{15} performance of 779 or less (with no direct head contact with the barrier) for a SID-IIs crash dummy in the driver's seating position in the IIHS MDB side impact crash test.

Until September 1, 2009, vehicles may be designed to meet either Option 1 or Option 2. Starting September 1, 2009, these vehicles will be designed in accordance with Option 2.

Applicability: *These performance criteria do not apply to vehicles that a manufacturer determines, due to basic practicability and functionality issues, cannot meet the performance criteria (e.g., very low sales volume vehicles, convertibles, very low height sports cars, and vehicles with removable doors), or would have to be excluded from the marketplace if compliance were required. For excluded vehicles, the manufacturer shall provide to Transport Canada, upon request, an explanation for the exclusion.*

2.0 FRONT-TO-FRONT CRASHES

2.1 PERFORMANCE CRITERIA &IMPLEMENTATION

Enhancing Geometric Alignment of Front Energy-absorbing Structures

Participating manufacturers will begin designing light trucks in accordance with one of the following two geometric alignment alternatives, with the light truck at unloaded vehicle weight (as defined in subsection 2(1) of the Motor Vehicle Safety Regulations but without accessories that are ordinarily removed from the vehicle when they are not in use):

OPTION 1: The light truck's primary frontal energy-absorbing structure shall overlap at least 50 percent of the Canada Motor Vehicle Safety Standard (CMVSS) 215/U.S. part 581 zone AND at least 50 percent of the light truck's primary frontal energy-absorbing structure shall overlap the CMVSS 215/U.S. part 581 zone (if the primary frontal energy-absorbing structure of the light truck is greater than 20.3 cm (8 inches) tall, engagement with the entire CMVSS 215/U.S. part 581 zone is required),[3] OR

OPTION 2: If a light truck does not meet the criteria of Option 1, there must be a secondary energy-absorbing structure, connected to the primary structure, whose lower edge shall be no higher than the bottom of the CMVSS 215/U.S. part 581 bumper zone. This secondary structure shall be designed to reduce structural over-ride of a passenger car during a frontal crash.

If a light truck has crash compatibility devices that deploy in high-severity frontal crashes with another vehicle, all measurements shall be made with these devices in their deployed state.

Not later than September 1, 2009, all of «COMPANY»'s light truck production marketed for sale in Canada will be designed in accordance with Option 1 or Option 2.

Applicability: *All light truck vehicles with GVWRs up to 4536 kg (10,000 pounds), except, low production-volume vehicles, vehicles over 3856 kg (8,500 pounds) GVWR with functional criteria which preclude them from meeting the performance criteria, (e.g., postal vehicles, military vehicles, service vehicles used by public and private utilities, vehicles specifically designed primarily for off-road use, and incomplete vehicles), and other vehicles that a manufacturer determines cannot meet the performance criteria without severely compromising their practicality or functionality.*

ATTACHMENT B

FRONT-TO-FRONT CRASHES; MEASUREMENT PROCEDURE

The conformance to Options 1 and 2 may be evaluated using engineering judgment, engineering drawings with production tolerances or, physical measurements.

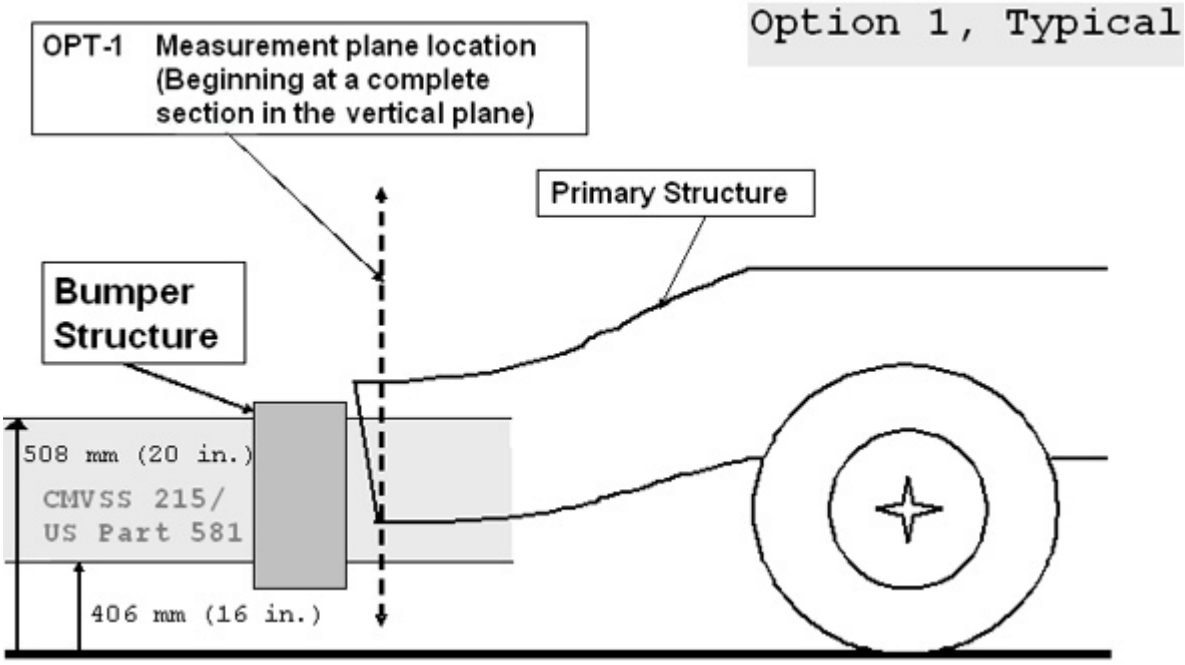
The following procedure shall be used to define the upper and lower heights of the Primary Energy Absorbing Structure (PEAS).[4]

All measurements will be made with the vehicle on a flat, level horizontal surface and at its unloaded weight (as defined in subsection 2(1) of the Motor Vehicle Safety Regulations but without accessories that are ordinarily removed from the vehicle when they are not in use). The tires will be inflated to the pressure recommended by the manufacturer of the vehicle and any systems likely to affect the vehicle structure height (such as air suspensions, etc) will be in the cruising configuration for the vehicle traveling at 56 km/h (35 mph) on a level horizontal road surface.

If the vehicle has crash compatibility devices that deploy in the event of high severity frontal crashes with another vehicle, all measurements shall be made with these devices in their deployed stage.

The height of the vehicle's PEAS mentioned in **Option 1** shall be measured at the forward-most point where a vertical plane intersects a complete section5 of the vehicle's PEAS. The heights of the top and of the bottom of the primary structure are determined as the heights of the upper and lower side respectively of the smallest vertical rectangle enclosing the outer surfaces of the cross-section of the PEAS. For this measurement, all components that are not designed for crash energy dissipation will be excluded from the measurement.[6]

The measurement of the height of vehicle's secondary energy absorbing structure mentioned in Option 2 shall be determined as the height of the horizontal plane that is tangential to the lowest point of the secondary energy absorbing structure.



[1]Sections S8.16 through S8.28 of Federal Motor Vehicle Safety Standard No. 201, "Occupant Protection in Interior Impact" (October 2002).

[2]See http://www.iihs.org/ratings/protocols/pdf/test_protocol_side.pdf

[3]See attachment for the geometric alignment assessment procedure to be followed.

[4]Primary Energy Absorbing Structure is defined as structure that manages energy in high-severity crashes.

[5]Typically, this will be a closed section.

[6]For structures that employ unique configurations, the test report shall include assumptions that influenced determination of PEAS height.

Transport Canada is closely monitoring the COVID-19 situation. In response, we have issued some **transportation-related measures and guidance**. Please check if any of these measures apply to you.

You may experience longer than usual wait times or partial service interruptions. If you cannot get through, please **contact us by email**.

For information on COVID-19 updates, please visit **Canada.ca/coronavirus**.

Date modified:
2020-12-01