HOUSE BILL No. 5938

November 12, 2014, Introduced by Rep. Irwin and referred to the Committee on Transportation and Infrastructure.

A bill to amend 1963 PA 181, entitled

"Motor carrier safety act of 1963,"

(MCL 480.11 to 480.25) by amending the title and by adding sections 13b and 13c.

THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

TITLE

An act to promote safety upon highways open to the public by regulating the operation of certain vehicles; to provide consistent regulation of these areas by state agencies and local units of government; **TO ESTABLISH CERTAIN MINIMUM REQUIREMENTS FOR REAR IMPACT GUARDS ON CERTAIN VEHICLES;** to establish the qualifications of persons necessary for the safe operation of such vehicles; to establish certain violations of shippers offering certain materials for transportation; to limit the hours of service of persons

HOUSE BILL No. 5938

engaged in operating such vehicles; to require the keeping of records of such operations; to provide penalties for the violation of this act; to prescribe the powers and duties of certain state agencies; and to repeal acts and parts of acts.

SEC. 13B. AS USED IN THIS SECTION AND SECTION 13C:

(A) "DANGEROUS GOODS" MEANS A PRODUCT, SUBSTANCE, OR ORGANISM THAT FALLS WITHIN 1 OR MORE OF THE FOLLOWING CATEGORIES:

(*i*) EXPLOSIVES.

(*ii*) GASES THAT ARE 1 OF THE FOLLOWING:

(A) COMPRESSED.

(B) DEEPLY REFRIGERATED.

(C) LIQUEFIED.

(D) DISSOLVED UNDER PRESSURE.

(*iii*) FLAMMABLE AND COMBUSTIBLE LIQUIDS.

(*iv*) FLAMMABLE SOLIDS, SUBSTANCES THAT MAY SPONTANEOUSLY COMBUST, OR SUBSTANCES THAT EMIT FLAMMABLE GASES UPON CONTACT WITH WATER.

(*v*) OXIDIZING SUBSTANCES OR ORGANIC PEROXIDES.

(*vi*) POISONOUS OR INFECTIOUS SUBSTANCES.

(*vii*) RADIOACTIVE NUCLEAR SUBSTANCES.

(*viii*) CORROSIVES.

(*ix*) ANY OTHER PRODUCT, SUBSTANCE, OR ORGANISM THAT IS DANGEROUS TO LIFE, HEALTH, PROPERTY, OR THE ENVIRONMENT WHEN HANDLED, OFFERED FOR TRANSPORT, OR TRANSPORTED.

(B) "GROUND CLEARANCE" MEANS THE VERTICAL DISTANCE FROM THE BOTTOM EDGE OF A HORIZONTAL MEMBER TO THE GROUND.

(C) "GUARD WIDTH" MEANS THE MAXIMUM HORIZONTAL GROUND

DIMENSION THAT IS PERPENDICULAR TO THE LONGITUDINAL VERTICAL PLANE PASSING THROUGH THE LONGITUDINAL CENTERLINE OF A TRAILER.

(D) "HORIZONTAL MEMBER" MEANS A HORIZONTAL STRUCTURAL MEMBER OF A REAR IMPACT GUARD.

(E) "HYDRAULIC GUARD" MEANS A REAR IMPACT GUARD DESIGNED TO USE FLUID PROPERTIES TO PROVIDE A RESISTANCE FORCE TO DEFORMATION.

(F) "LOW-CHASSIS TRAILER" MEANS A TRAILER THAT HAS A CHASSIS THAT EXTENDS BEHIND THE REARMOST POINT OF THE REARMOST TIRES AND THAT HAS A LOWER REAR SURFACE THAT MEETS THE CONFIGURATION REQUIREMENTS OF SECTION 13C(2)(B) TO (D).

(G) "OUTBOARD" MEANS EXTENDING AWAY FROM THE TRAILER CENTERLINE AND TOWARD THE SIDE EXTREMITIES OF THE TRAILER.

(H) "PULPWOOD TRAILER" MEANS A TRAILER THAT IS DESIGNED EXCLUSIVELY TO CARRY HARVESTED LOGS OR PULPWOOD AND THAT IS CONSTRUCTED WITH A SKELETAL FRAME WITH NO MEANS FOR THE ATTACHMENT OF A SOLID BED, BODY, OR CONTAINER.

(I) "REAR EXTREMITY" MEANS THE REARMOST POINT ON A TRAILER THAT IS ABOVE A HORIZONTAL PLANE LOCATED ABOVE THE GROUND CLEARANCE AND BELOW A HORIZONTAL PLANE LOCATED 1,900 MILLIMETERS ABOVE THE GROUND WHEN THE TRAILER IS CONFIGURED AS PROVIDED IN SECTION 13C(2)(C) AND WHEN THE TRAILER'S CARGO DOORS, TAILGATE, AND OTHER PERMANENT STRUCTURES ARE POSITIONED AS THEY NORMALLY ARE WHEN THE TRAILER IS IN MOTION. NONSTRUCTURAL PROTRUSIONS, INCLUDING, BUT NOT LIMITED TO, TAIL LAMPS, RUBBER BUMPERS, HINGES, AND LATCHES, ARE EXCLUDED WHEN DETERMINING THE REARMOST POINT.

(J) "REAR IMPACT GUARD" MEANS A DEVICE INSTALLED ON OR NEAR THE REAR OF A TRAILER THAT LIMITS THE DISTANCE THAT THE FRONT END

OF A VEHICLE STRIKING THE REAR OF THE TRAILER SLIDES UNDER THE REAR END OF THE TRAILER.

(K) "ROUNDED CORNERS" MEANS THE OUTERMOST ENDS OF A REAR IMPACT GUARD'S HORIZONTAL MEMBER THAT CURVE UPWARD.

(*l*) "SIDE EXTREMITY" MEANS THE OUTERMOST POINT ON A TRAILER'S SIDE THAT IS ABOVE A HORIZONTAL PLANE LOCATED ABOVE THE GROUND CLEARANCE, BELOW A HORIZONTAL PLANE LOCATED 1,900 MILLIMETERS ABOVE THE GROUND, AND BETWEEN A TRANSVERSE VERTICAL PLANE TANGENT TO THE REAR EXTREMITY OF THE TRAILER AND A TRANSVERSE VERTICAL PLANE LOCATED 305 MILLIMETERS IN FRONT OF THAT PLANE. NONSTRUCTURAL PROTRUSIONS, INCLUDING, BUT NOT LIMITED TO, TAIL LAMPS, RUBBER BUMPERS, HINGES, AND LATCHES, ARE EXCLUDED WHEN DETERMINING THE OUTERMOST POINT.

(M) "TANKER TRAILER" MEANS A TRAILER THAT IS DESIGNED EXCLUSIVELY TO TRANSPORT DANGEROUS GOODS.

(N) "WHEELS-BACK TRAILER" MEANS A TRAILER, THE REARMOST AXLE OF WHICH IS PERMANENTLY FIXED AND LOCATED SUCH THAT THE REARMOST SURFACE OF THE REARMOST TIRES OF THE SIZE RECOMMENDED BY THE TRAILER MANUFACTURER FOR THAT AXLE IS NOT MORE THAN 305 MILLIMETERS FORWARD OF THE TRANSVERSE VERTICAL PLANE TANGENT TO THE REAR EXTREMITY OF THE TRAILER.

SEC. 13C. (1) EXCEPT AS OTHERWISE PROVIDED IN THIS SUBSECTION, A TRAILER SHALL BE EQUIPPED WITH A REAR IMPACT GUARD THAT SATISFIES THE REQUIREMENTS OF THIS SECTION. THIS SECTION DOES NOT APPLY TO ANY OF THE FOLLOWING:

(A) A POLE TRAILER, PULPWOOD TRAILER, WHEELS-BACK TRAILER, OR TRAILER DESIGNED TO BE USED AS TEMPORARY LIVING QUARTERS.

(B) A LOW-CHASSIS TRAILER.

(C) A TRAILER THAT IS DESIGNED TO INTERACT WITH OR THAT HAS WORK-PERFORMING EQUIPMENT LOCATED IN OR MOVING THROUGH THE AREA THAT WOULD BE OCCUPIED BY A HORIZONTAL MEMBER THAT MEETS THE REQUIREMENTS OF THIS SECTION.

(2) ALL OF THE FOLLOWING APPLY TO A REAR IMPACT GUARD REQUIRED UNDER THIS SECTION:

(A) THE HORIZONTAL MEMBER SHALL HAVE A CROSS-SECTIONAL VERTICAL HEIGHT OF AT LEAST 100 MILLIMETERS AT ANY POINT ACROSS THE WIDTH OF THE REAR IMPACT GUARD WHEN INSTALLED ON A TRAILER.

(B) THE OUTERMOST SURFACES OF THE HORIZONTAL MEMBER SHALL EXTEND OUTBOARD TO WITHIN 100 MILLIMETERS OF THE LONGITUDINAL VERTICAL PLANES THAT ARE TANGENT TO THE SIDE EXTREMITIES, BUT SHALL NOT EXTEND OUTBOARD OF THOSE PLANES.

(C) WHEN THE TRAILER IS RESTING ON LEVEL GROUND AND UNLOADED, HAS A FULL FUEL TANK AND INFLATED TIRES, AND ITS AIR SUSPENSION, IF APPLICABLE, IS PRESSURIZED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, THE GROUND CLEARANCE SHALL NOT EXCEED 560 MILLIMETERS AT ANY POINT ACROSS THE FULL WIDTH OF THE HORIZONTAL MEMBER, EXCEPT THAT ROUNDED CORNERS MAY CURVE UPWARD WITHIN 255 MILLIMETERS OF THE LONGITUDINAL VERTICAL PLANES THAT ARE TANGENT TO THE SIDE EXTREMITIES.

(D) AT ANY HEIGHT ABOVE GROUND CLEARANCE, THE REARMOST SURFACE OF A HORIZONTAL MEMBER SHALL BE LOCATED AS CLOSE AS PRACTICABLE TO A TRANSVERSE VERTICAL PLANE TANGENT TO THE REAR EXTREMITY OF THE TRAILER, AND NO MORE THAN 305 MILLIMETERS FORWARD OF THAT PLANE.

(3) A REAR IMPACT GUARD SHALL DEMONSTRATE RESISTANCE TO THE

FOLLOWING FORCES BY DEFLECTING NO MORE THAN 125 MILLIMETERS:

(A) 50,000 NEWTONS AT A POINT LOCATED AT A DISTANCE OF 3/8 OF THE WIDTH OF THE REAR IMPACT GUARD FROM THE CENTER.

(B) 50,000 NEWTONS AT THE CENTER OF THE REAR IMPACT GUARD.

(4) A REAR IMPACT GUARD SHALL CONFORM TO ALL OF THE FOLLOWING:

(A) BY DEFLECTING NO MORE THAN 125 MILLIMETERS, DEMONSTRATE RESISTANCE TO A UNIFORM TEST LOAD OF AT LEAST 350,000 NEWTONS, WHICH SHALL BE APPLIED UNIFORMLY ACROSS THE HORIZONTAL MEMBER BY A UNIFORM LOAD APPLICATION STRUCTURE CENTERED ON THE GUARD.

(B) IF THE REAR IMPACT GUARD DEMONSTRATES RESISTANCE TO A UNIFORM TEST LOAD OF 700,000 NEWTONS OR LESS, ABSORB BY PLASTIC DEFORMATION AT LEAST 200,000 JOULES OF ENERGY WITHIN THE FIRST 125 MILLIMETERS OF DEFLECTION. THIS SUBDIVISION DOES NOT APPLY TO A HYDRAULIC GUARD OR A REAR IMPACT GUARD INSTALLED ON A TANKER TRAILER.

(C) HAVE A GROUND CLEARANCE OF NOT MORE THAN 560 MILLIMETERS, MEASURED AT ANY SUPPORT TO WHICH THE HORIZONTAL MEMBER IS ATTACHED AFTER COMPLETION OF THE ENERGY ABSORPTION TEST, OR, IF AN ENERGY ABSORPTION TEST IS NOT REQUIRED, AFTER COMPLETION OF THE UNIFORM LOAD TEST.

(5) IF A REAR IMPACT GUARD IS SYMMETRICAL ABOUT THE LONGITUDINAL VERTICAL PLANE PASSING THROUGH THE CENTER OF THE HORIZONTAL MEMBER, 1/2 OF THE GUARD MAY BE TESTED AS PROVIDED IN SUBSECTION (6) IF IT IS COMPLETELY SEVERED FROM THE PORTION OF THE GUARD NOT BEING TESTED.

(6) IF 1/2 OF A REAR IMPACT GUARD IS TESTED AS DESCRIBED IN SUBSECTION (5), THE GUARD SHALL CONFORM TO ALL OF THE FOLLOWING:

(A) BY DEFLECTING NO MORE THAN 125 MILLIMETERS, DEMONSTRATE RESISTANCE TO A TEST LOAD OF AT LEAST 175,000 NEWTONS, WHICH SHALL BE APPLIED AS FOLLOWS:

(*i*) UNIFORMLY ACROSS THE TESTED PORTION OF THE HORIZONTAL MEMBER BY A UNIFORM LOAD APPLICATION STRUCTURE CENTERED ON THAT PORTION.

(*ii*) BY A SINGLE POINT LOAD AT THE JUNCTION OF THE SUPPORT TO THE PORTION OF THE HORIZONTAL MEMBER BEING TESTED.

(B) IF THE TESTED PORTION OF A HORIZONTAL MEMBER DEMONSTRATES RESISTANCE TO A TEST LOAD OF 350,000 NEWTONS OR LESS, ABSORB BY PLASTIC DEFORMATION AT LEAST 10,000 JOULES OF ENERGY WITHIN THE FIRST 125 MILLIMETERS OF DEFLECTION. THIS SUBDIVISION DOES NOT APPLY TO A HYDRAULIC GUARD OR A REAR IMPACT GUARD INSTALLED ON A TANKER TRAILER.

(C) HAVE A GROUND CLEARANCE OF NOT MORE THAN 560 MILLIMETERS, MEASURED AT ANY SUPPORT TO WHICH THE HORIZONTAL MEMBER IS ATTACHED AFTER COMPLETION OF THE ENERGY ABSORPTION TEST, OR, IF AN ENERGY ABSORPTION TEST IS NOT REQUIRED, AFTER COMPLETION OF THE LOAD TEST.

Enacting section 1. This amendatory act takes effect 1 year after the date it is enacted into law.