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BILL ANALYSIS

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Senate Bill 788 (Substitute S-2 as passed by the Senate)
Sponsor: Senator Ron Jelinek
Committee: Agriculture, Forestry and Tourism

Date Completed: 11-16-05

RATIONALE

Farm equipment traveling on highways can create dangerous situations for the person driving the equipment and for other motorists. Farm equipment is often large, slow, or irregular in shape, presenting an unusual obstacle for drivers of other vehicles, particularly at dusk or at night. The State of Michigan has set lighting and marking requirements for farm equipment, but some are concerned that those requirements are insufficient. The American National Standards Institute (ANSI) and the American Society of Agricultural Engineers (ASAE) have developed and approved uniform standards for the marking and lighting of farm equipment on highways, based on consensus from a group of industry representatives, engineers, university professors, and safety advocates. The ANSI/ASAE standards are higher than the current requirements under Michigan law. Some believe that the State should adopt those standards for farm vehicles traveling on Michigan's highways.

CONTENT

The bill would amend the Michigan Vehicle Code to require an implement of husbandry to meet certain national standards regarding a slow-moving vehicle identification emblem and lighting and marking while operating or traveling on a highway.

Beginning January 1, 2007, the bill would prohibit a person from selling an implement of husbandry that did not comply with the bill, unless it were manufactured before that date.

The bill would require an implement of husbandry manufactured on or after January 1, 2007, to comply with the following standards approved by the American National Standards Institute and the American Society of Agricultural Engineers:

-- ANSI/ASAE S276.6 JAN2005: Slow-Moving Vehicle Identification Emblem (which establishes specifications that define a unique identification emblem to be used only for slow-moving vehicles when operated or traveling on highways).
-- ANSI/ASAE S279.12 DEC02: Lighting and Marking of Agricultural Equipment on Highways (which provides specifications for lighting and marking of agricultural equipment whenever it is operating or is traveling on a highway.)

(The standards are described in more detail under **BACKGROUND**.)

The standards would be incorporated by reference. The Secretary of State would have to post the incorporated standards on its website within 30 days after the bill was enacted.

Implements of husbandry manufactured before January 1, 2007, would have to meet the current requirements in the Code: either display red lighted rear lamps plainly visible from a distance of 500 feet to the rear; or be accompanied by a vehicle that follows the implement of husbandry at a maximum distance of 50 feet, illuminates the implement with the vehicle's headlights, and displays lighted rear lamps plainly visible from 500 feet.

The Code also requires that every vehicle with a maximum speed of 25 miles per hour implement of husbandry, farm tractor, or special mobile equipment be identified with reflective triangles of certain proportions and specifications. Under the bill, this would be subject to the requirement that an implement of husbandry comply with the ANSI/ASAE standards specified in the bill.

Under the Code, every vehicle on a highway at any time from a half hour after sunset to a half hour before sunrise, and at any other time when there is not sufficient light to see 500 feet ahead, must be equipped with at least one lighted white lamp visible from 500 feet to the front of the vehicle, and with a red lamp visible from 500 feet to the rear. The bill would retain this requirement for implements of husbandry manufactured before January 1, 2007. Those manufactured on or after that date would be required to comply with the ANSI/ASAE standards specified in the bill.

MCL 257.685 et al.

BACKGROUND

ANSI and ASAE

The American National Standards Institute is a private, nonprofit organization the coordinates the development and assessment of voluntary, open national standardization systems. The American Society of Agricultural Engineers is a professional and technical organization dedicated to the advancement of engineering applicable to agricultural, food, and biological systems, now the American Society of Agricultural and Biological Engineers (ASABE). The groups work cooperatively to develop national standards.

ANSI/ASAE S276.6 JAN2005: Slow-Moving Vehicle Identification Emblem

The standard establishes specifications for a Slow-Moving Vehicle (SMV) Emblem, which is only to be used on SMVs and is designed to communicate the slower speed capabilities of SMVs to other vehicles.

The standard requires that an SMV emblem consist of a fluorescent orange equilateral triangle, positioned pointing up, with a red retroreflective border. The emblem manufacturer must place its name and address on the face of the emblem in the lower center or lower right corner, and certify that it complies with the standard.

The emblem must be visible as a hollow red triangle from between 100 and 1,000 feet from the rear when directly in front of lawful vehicle low beam headlights. The retroreflective baking material must be at least as large as the emblem. (Additional dimensional specifications are identified in the standard.) The backing material must meet color and reflectivity specifications, and must undergo an exterior durability test with no cracking, crazing, blistering, loss of adhesion, or dimensional change. The material must show no corrosion or edge fading, and must meet adhesive requirements.

The fluorescent material must be visible in the daylight as a red-orange fluorescent triangle from between 100 and 1,000 feet. The material must be of sufficient thickness and strength to withstand an exterior durability test with no cracking, crazing, blistering, loss of adhesion, or dimensional change. The color, purity, luminance and peak reflectance of the material must be able to withstand the durability test. The color of the material must fall within a specified range, as measured by spectrophotometric color values. The material must be applied with a pressure sensitive adhesive with a certain minimum adhesive value.

The backing material for movable identification emblems must be of a specified minimum thickness, depending on the material. The edges of the backing material must be shaped to minimize personal injury during handling or when mounted. The backing material must be weatherable, semirigid, and have a surface receptive to a durable bond.

A movable emblem must undergo drop tests from a height of six feet onto a smooth, hard surface, at both 75°F and -10°F. The emblem must undergo a corner drop, an edge drop, and a flat surface drop. After the drop test, the emblem still must meet the requirements o the standard. The backing material also must undergo an impact resistance test conducted at about 75°F.

The emblem must be mounted with the point of the triangle upward, in a plane

perpendicular to the direction of travel and +/-20° from the vertical. The emblem must be visible from the rear of the vehicle and must be as near to the rear and centered, or as near to the left of center as is practical. The lower edge of the emblem must be between two and 10 feet from the ground. The emblem must be securely and rigidly affixed to the equipment. The reflectivity and fluorescence of the emblem must be unobscured so that the triangular shape is readily identifiable both day and night.

The SMV emblem is to be used only on slow-moving machines or vehicles with a maximum speed of 25 miles per hour or less. On SMVs with maximum speeds between 26 and 40 miles per hour, an SMV emblem must be used in combination with a Speed Identification Emblem. If a vehicle is being transported at speeds other than those specified, the SMV emblem must be removed. An SMV emblem may not be used to identify permanently stationary objects.

ANSI/ASAE S279.12 DEC02: Lighting and Marking of Agricultural Equipment on Highways

The standard requires that tractors and self-propelled machines have at least two headlamps mounted at the same height and spaced laterally as widely as practicable. Work lamps or general service lamps must be aimed downward to provide illumination close to the machine, and if they are projecting to the rear, must not be illuminated during highway travel.

Two red rear lamps must be symmetrically mounted to the rear of the machine and spaced as widely as is practicable, but not more than five feet to the left and right of center, and between 3.3 and 10 feet high.

At least two amber flashing warning lamps conforming to the standard must be mounted symmetrically and as widely spaced laterally as practicable, visible form both front and rear. The lamps must flash in unison at a rate of 60 to 85 flashes per minute. If the machine is wider than 12 feet, two amber flashing warning lamps must be mounted within 16 inches of the extremities of the machine. These may be in addition to, or in place of, the warning lamps specified above.

The standard also sets specifications for turn indicators, retroreflective devices, and strips of conspicuity material on the front and rear of the machine. The standard requires equipment to be marked for width and for length with conspicuity material. The equipment also must display a Slow-Moving Vehicle identification emblem.

Any equipment that obscures the illumination of any flashing warning lamp, tail lamp, or extremity lamp must be fitted with additional lamps on the obscuring equipment. The standard requires and gives specifications for amber flashing warning lamps, red tail lamps, and turn indicators for the lighting of equipment length and width.

The machine must be equipped with a seven-terminal receptacle conforming to certain specifications (for the powering of lights illuminating towed and non-self-propelled equipment).

ARGUMENTS

(Please note: The arguments contained in this analysis originate from sources outside the Senate Fiscal Agency. The Senate Fiscal Agency neither supports nor opposes legislation.)

Supporting Argument

The bill would require a higher standard for the marking and lighting of farm equipment on highways than is currently required, making Michigan's highways safer for everyone. The standards would improve the recognition of slow-moving equipment, giving drivers time to slow down and take appropriate precautions. The standards would improve recognition both at night and during the day, with reflective markings and lights to improve night visibility, and fluorescent markings for daytime recognition. The standards also would improve the recognition of equipment over 12 feet wide by requiring lights and markings identifying the left and right extremities of the equipment. Uniform lighting and marking patterns would help other drivers readily to identify farm equipment on the highway. Just as standard road signs and standard passenger car lights make them more easily recognizable, the ANSI/ASAE standards for lighting and marking implements of husbandry would improve recognition of those vehicles.

The bill would improve safety without causing an undue burden on manufacturers of farm equipment, most of whom already adhere to the ANSI standards. There would be little if any additional cost to the manufacturers or buyers of the equipment in implementing the new requirements. Actually, if standards were uniform across state boundaries, manufacturers could see decreased costs. Ohio, Illinois, and Indiana already have adopted similar legislation, and the Wisconsin legislature is considering a similar bill. Uniform standards in other states could help ease the interstate movement or sale of farm equipment.

Opposing Argument

It is unclear who would be responsible for enforcing the provisions of the bill, if for example a farm implement were found to be missing lights or if they were obscured by mud. Also, there are no prescribed penalties for violations of the bill.

Response: The Michigan Vehicle Code specifies that a violation with respect to equipment on vehicles is a civil infraction, and the Code prescribes civil infraction penalties. The Code also authorizes a police officer to issue a citation to the driver of a vehicle with equipment found to be in violation of the Code.

Legislative Analyst: Curtis Walker

FISCAL IMPACT

The bill would have no fiscal impact on State or local government.

Fiscal Analyst: Stephanie Yu

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