

RECOMMENDATIONS

The Board recommends that:

R-68-10
(1) The Secretary of Transportation, with representation from the National Transportation Safety Board, continue to study and review the railroad-highway grade crossing problem in all of its aspects. Reference is made to the short range and long range programs announced by the Secretary of Transportation in his news release of August 8, 1967 (copy in Appendix V).

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(2) The Secretary of Transportation seek legislation to authorize the Federal Railroad Administrator to prescribe regulations requiring:

- (a) Emergency means of escape from railroad passenger cars.
- (b) Emergency lighting for railroad passenger cars.

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(3) The Board notes that on passenger-carrying railroad cars, the exit doors normally open inward. The Board recommends that the Federal Railroad Administrator initiate studies and action that will insure that, in emergency, passengers can reliably escape from regular exits of passenger-carrying railroad cars.

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(4) The Department of Transportation include in its grade-crossing protection study and action program the problem of motor vehicles stalling on railroad tracks and methods of warning

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approaching trains to prevent a collision. The study should include all technical methods which could have a bearing on the problem such as means of warning the crew of the oncoming train, special means to be carried by vehicles loaded with hazardous cargo for activating the railroad signal system, and methods of reducing the emergency stopping distance of existing and future rail equipment.

- (5) The Federal Highway Administrator take under immediate consideration the revision of existing regulations under his jurisdiction in order to:

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- (a) Require an emergency means within the cab of a motor-truck by which brakes, which have been applied automatically to the tractor and/or trailer because of the loss of air pressure in the braking systems can again be released.
- (b) Require motor vehicles of unusual size and those carrying flammable, toxic or other hazardous cargo to use grade crossings offering minimum risk of vehicle stalling or stopping on the crossing. Criteria for designation of such crossings might include approaches free from steep grades and curves, freedom from nearby traffic lights on highway and other sources of traffic congestion, smoothness of crossing pavement, sight distance along the railroad track, and positive grade separations such as overpasses.

Where grade crossings are designated, consideration should be given to developing means of displaying a stop signal to rail traffic during the time truck is actually crossing the tracks.

- (c) Require emergency flares of high brilliance from a self-contained power source to be carried on all motortrucks subject to Bureau of Motor Carrier Safety regulations, in order to provide visual warning in an emergency. Emergency flares should not be of a type that might represent a fire hazard.
 - (d) Require all drivers of motor vehicles subject to Bureau of Motor Carrier Safety regulations to demonstrate knowledge of and use of emergency signals and emergency procedures.
- (6) The Federal Highway Administrator study the feasibility of fire resistance regulations for tank trucks carrying flammable fluids to prevent low-order explosions and rapid propagation of flame from such tanks when they are ruptured. Such techniques as lining tanks with soft material or filling tanks with special reticulated foam are known to be technically effective in preventing such rapid flame spread. These methods would also be important in preventing fires following highway accidents and their feasibility as to future cost and weight should be evaluated.

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