

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: November 16, 1977

Forwarded to:

Mr. Vincent Tofany
President
National Safety Council
425 North Michigan Avenue
Chicago, Illinois 60611

SAFETY RECOMMENDATION(S)

H-77-25

At 5:05 p.m. on July 1, 1976, near Des Moines, Iowa, a westbound Chicago, Rock Island and Pacific Railroad Company freight train struck an automobile that had slowed but did not stop for the flashing signal lights at a grade crossing. All five persons in the automobile were killed. ^{1/}

Even though the sight distance for observing approaching trains was limited on one side for each direction of travel and even though the crossing signals were operating and visible, none of the drivers who approached the crossing without a vehicle preceding them intended to stop in response to the signals alone. These drivers significantly reduced their approach speed from the posted 45-mph speed limit, but they were also searching for an approaching train while they were still moving and distant from the crossing. They decided either to cross the track or to stop as they were approaching the crossing and based their decision on whether or not they thought a train presented an immediate hazard. Research also indicates that even the average driver who stops at these crossings with limited sight distance may be attempting to shorten the time required to stop in order to maximize his opportunity to cross in front of a train. This and other evidence indicates that driver disregard for warning signals at railroad/highway grade crossings is common nationwide.

In March 1972, the Federal Railroad Administration and the National Highway Traffic Safety Administration began a joint effort to determine driver performance and related human factors that contributed to motor

^{1/} For more detailed information about this accident read "Railroad/Highway Accident Report - Collision of a Chicago, Rock Island and Pacific Railroad Company Freight Train With An Automobile, Des Moines, Iowa, July 1, 1976" (NTSB-RHR-77-2).

vehicle/train accidents and to develop and demonstrate the effectiveness of countermeasures for these factors. A significant effort was made to understand driver behavior at railroad crossings, to develop nonaccident measures of behavior (such as driver "looking behavior" and driver attitudes) for evaluating countermeasures, and to predict which countermeasures would increase behavioral safety.

These driver-oriented countermeasures included: (1) driver education to eliminate intolerant attitudes about delays at railroad crossings; (2) enforcement of laws that stipulate grade crossing behavior; and (3) efforts to increase appropriate "looking behavior." As part of the study, drivers were asked to suggest ways to reduce crossing accidents. After increased use of gates and better warning signs and signals, drivers thought improved driver education, stricter law enforcement, and public safety campaigns were useful methods to improve crossing safety.

The National Transportation Safety Board has issued a number of recommendations to improve railroad/highway grade crossing safety. The Safety Board has advocated further development of improved train and crossing equipment, better methods for upgrading crossing protection, and improved driver education and law enforcement. In a 1972 report, the Safety Board recommended that the U.S. Department of Transportation "include in its railroad-highway grade crossing program the development of methods, and a system for their implementation, to improve driver understanding of hazards involved, and the crucial precautions needed for safe passage across railroad-highway intersections." ^{2/} In a 1973 report, the Safety Board recommended that the International Association of Chiefs of Police "use its influence and resources to redirect the attention of law enforcement agencies to the need for uniform enforcement of traffic laws pertaining to railroad/highway grade crossing." ^{3/}

Congress has mandated that the Federal Highway Administration pursue an aggressive program to develop better crossing equipment and upgrade crossing protection and has provided some specific funds to achieve that objective. Currently, there is no apparent Federal effort to vigorously pursue a program that would upgrade driver education and law enforcement activity or to devise, implement, or generate interest in public safety campaigns related to crossing safety.

The Safety Board is aware of the activities of the National Safety Council in assisting several States and major railroads in the implementation of "Operation Lifesaver" programs. These programs seem to provide an appropriate focal point for combining and enhancing existing education, enforcement, and engineering efforts within a State. Initial indications

^{2/} "Atchison, Topeka and Santa Fe Passenger Train No. 212 Collision With Stillwater Milling Company Motortruck at 116th Street North Grade Crossing Near Collinsville, Oklahoma, April 5, 1971" (NTSB-RHR-72-1).

^{3/} "Penn Central Freight Train/Schoolbus Collision, Congers, New York, March 24, 1972" (NTSB-RHR-73-1).

are that the programs have achieved some success, but there is a need to provide additional resources to insure complete development, implementation, and evaluation of this effort. Therefore, the National Transportation Safety Board recommends that the National Safety Council:

Serve as a national focal point and coordinator for the total development, implementation, and evaluation of a nationwide "Operation Lifesaver" railroad/highway grade crossing safety program. This program should be undertaken with the full support and cooperation of all interested groups and agencies, especially the Association of American Railroads, the International Association of Chiefs of Police, the National Highway Traffic Safety Administration, the Federal Highway Administration, the Federal Railroad Administration, and the States. (Class II, Priority Action) (H-77-25)

McADAMS, HOGUE, and KING, Members, concurred in the above recommendation. BAILEY, Acting Chairman, did not participate.

A handwritten signature in cursive script that reads "Kay Bailey".

By: Kay Bailey
Acting Chairman

