

H-309

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: October 6, 1981

Forwarded to:

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President
National Safety Council
425 North Michigan Avenue
Chicago, Illinois 60611

SAFETY RECOMMENDATION(S)

H-81-79

During a 1-month period in the fall of 1979, the National Transportation Safety Board (NTSB) investigated four accidents at railroad/highway grade crossings involving a train collision with a truck transporting petroleum products. Three of these accidents resulted in gasoline fires which engulfed the truck trailers and the train locomotives. While the drivers were uninjured in the three accidents involving fire, five railroad employees were killed, four were injured, and the total property damage for the three accidents was estimated to be more than \$923,000. These four accidents and five similar accidents, previously investigated by the NTSB, all involved factors that have been found to be common in accidents at crossings which involved trucks transporting bulk hazardous materials. Because of this accident experience, the NTSB initiated a special study ^{1/} to determine the magnitude of the problem and the characteristics of accidents at crossings involving trucks transporting bulk hazardous materials.

The NTSB examined data from its accident investigations involving train collisions with trucks transporting bulk hazardous materials and reviewed accident data on this type of accident from four agencies in the U.S. Department of Transportation (DOT). The data for 1975 through 1979 revealed a yearly average of 62 accidents, 7 fatalities, 41 injuries, and \$1,670,000 in property damage for these truck accidents.

Shortly after the NTSB initiated the accident investigation phase of this study in November 1980, four such accidents occurred within a 10-day period that resulted in 9 fatalities, 9 injuries, and \$718,000 in property damage. In this 10-day period, the total fatalities exceeded the yearly average, and the property damage was 43 percent of what might be expected for an entire year. Another accident investigated in 1981 resulted in the derailment of 5 locomotive units and 24 cars, 1 fatality, and \$2,748,000 in property damage--1.6 times the average annual property damage in recent years.

^{1/} For more detailed information, read Special Study--"Railroad/Highway Grade Crossing Accidents Involving Trucks Transporting Bulk Hazardous Materials" (NTSB-HZM-81-2).

In more recent accidents, two common factors have been observed. The first factor observed was that these accidents tend to occur near terminals. In those cases where accidents occurred at crossings with passive warning devices, a petroleum products terminal, depot, distribution center, etc., was either within a few miles of, or immediately adjacent to, the tracks. Nine accidents occurred at crossings with passive devices. In seven of these accidents, the petroleum distribution center was within 4 miles of the crossing, with five storage facilities within several thousand feet of the accident crossing. The two accidents within several miles of the depots were on the most direct routes to the terminals.

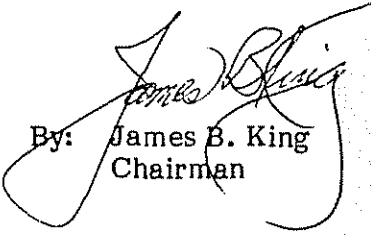
The second factor observed was that drivers involved in these accidents appeared to demonstrate an irresponsible or careless attitude at the crossings. Two drivers made conscious efforts to drive around gates; one driver disregarded flashers that were visible for 720 feet; two drivers approached crossings with passive devices with no apparent intention of stopping; and one driver did not stop at a crossing with passive devices even though he had been involved in an accident at the same crossing the day before. Some of these and other of the drivers had driving convictions (reckless driving or a number of speeding violations), suspensions, or accident histories in their State driver license records which suggest a serious lack of safety consciousness among drivers of trucks loaded with bulk hazardous materials.

To reduce the number of accidents involving train collisions with trucks transporting bulk hazardous materials, a uniform, coordinated effort is needed. The education, enforcement, engineering, and legislative effort that is required involves interaction among agencies that may ordinarily not become involved in each other's activities. The trucking associations, State and local departments of transportation, railroads, labor groups, enforcement agencies, legislatures, carriers, and shippers should participate in this effort. Many of these agencies are already working together on "Operation Lifesaver," which is being promoted by the National Safety Council. It may be appropriate for the National Safety Council to again act as a national focal point to develop programs specifically aimed at reducing accidents with bulk hazardous materials trucks, perhaps as an extension of Operation Lifesaver. At least one railroad company already has extended the Operation Lifesaver program to specifically address this problem.

Therefore, the National Transportation Safety Board recommends that the National Safety Council:

Expand the existing Operation Lifesaver program to include a specific program which addresses the problems with trucks carrying bulk hazardous materials, especially petroleum products, over crossings.
(Class II, Priority Action) (H-81-79)

KING, Chairman, and GOLDMAN and BURSLEY, Members, concurred in this recommendation. DRIVER, Vice Chairman, and McADAMS, Member, did not participate.


By: James B. King
Chairman