

H-303

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: October 6, 1981

Forwarded to:

Honorable Howard Dugoff
Administrator
Research and Special Programs Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

SAFETY RECOMMENDATION(S)

H-81-78

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).

Even with the best active devices, accidents will occur when drivers do not respect or understand the message being conveyed by the signals. The Federal Railroad Administration data indicate that 30 percent of all such accidents occurred because the drivers did not obey flashing lights or gates. In another 41 percent of the accidents, the drivers failed to stop at crossings with passive warning devices and did not perceive the approaching train. The other accidents included vehicles that stopped or stalled on the crossings. Federal, State, and local enforcement officials must improve driver compliance with existing regulations that govern the crossing of railroad tracks by trucks loaded with bulk hazardous materials to reduce the number of these accidents.

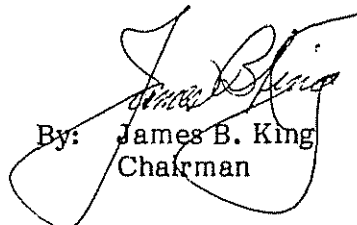
In most of the NTSB investigations at crossings, evidence could be developed that showed that drivers were generally not being cited for noncompliance with laws pertaining to crossings. A recent DOT letter ^{2/} stated that "Section 392.10 Federal Motor Carrier Safety Regulations has been in existence many years with little enforcement action taken because of the difficulty in developing proper evidence" This regulation deals with the responsibility of drivers of bulk hazardous materials trucks at crossings. Support must be obtained so that drivers will ultimately respect the intersection of the highway with the railroad to the extent that they do where two highways intersect.

The Transportation Safety Institute of the Research and Special Programs Administration offers several courses relating to the enforcement of safety regulations governing the transportation of hazardous materials on highways. Since there are special regulations which govern driver actions at crossings when vehicles are carrying bulk hazardous materials, and since these types of accidents can be severe, crossing regulations should be emphasized in these courses.

Therefore, the National Transportation Safety Board recommends that the Research and Special Programs Administration:

Include in the hazardous materials enforcement courses offered through the Transportation Safety Institute instructions concerning driver responsibilities at crossings when transporting bulk hazardous materials.
(Class III, Longer-Term Action) (H-81-78)

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

^{2/} Letter from Associate Regional Administrator, Office of Motor Carrier Safety, Kansas City, Missouri field office, February 18, 1981, contained in "Railroad-Highway Crossing Safety Program - Progress Report," DOT, FRA, Midwest Region, July 1, 1981.