

H-219

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: May 14, 1980

Forwarded to:
Honorable Ron Bair
Mayor of Spokane
City Hall
Spokane, Washington 99201

SAFETY RECOMMENDATION(S)

H-80-41 through -44

On November 2, 1979, at about 11 p.m., a westbound Union Pacific train on the Spokane subdivision of the Spokane International Railroad collided with a gasoline truck and trailer at the Stone Street crossing. The trailer's cargo tank ruptured, resulting in an explosion and ignition of its 5,500-gallon cargo of gasoline. Two brakemen and a foreman in the cab of the diesel locomotive unit were killed. The engineer was critically injured.

The Safety Board's investigation disclosed that the train was moving at about 10 mph, which was within the maximum timetable speed of 20 mph. The estimated speed of the truck was less than 5 mph. Washington State law and the Code of Federal Regulations require a driver of any motor vehicle carrying a flammable liquid as a cargo to stop within 50 feet but not less than 15 feet from the nearest rail of a railroad crossing. The driver said that he stopped before proceeding across the tracks. However, because a building and a parked boxcar obstructed his view, the truckdriver could not see the train from a lawfully stopped position.

The truckdriver said that his window was half open, but that he did not hear the engine's bell which, according to a witness, was ringing. Its sound could have been attenuated by the obstructions or drowned out by the noise from the truck's engine. Once the truck had started from the stopped position and the truckdriver could see the train, the truck could be neither stopped short of the tracks nor accelerated clear of the tracks before being struck by the train.

The city of Spokane has an ordinance which prohibits the use of a train whistle within city limits except in emergency situations. The engineer said that he had sounded the whistle when he first saw the truck, but the driver said he never heard it. The driver noticed the locomotive unit's headlights, but only after he was on the tracks.

There are three additional railroad/highway grade crossings within 1,000 feet west of the Stone Street crossing, at Lee, Crestline, and Napa Streets. Of these, only Napa Street has active crossing protection which consists of crossbucks and double-flashing lights; however, it does not have advance signs and pavement markings as required by the Manual on Uniform Traffic Control Devices.

A traffic count made on November 5, 1979, showed that during the 24-hour period beginning at 10 a.m., 383 vehicles crossed the tracks at Stone Street, 67 vehicles crossed at Lee Street, 229 vehicles crossed at Crestline Street, and 8,295 vehicles crossed at Napa Street. If there had not been crossings at Stone, Lee, or Crestline Streets, the truckdriver probably would have used Napa Street to cross the tracks. The active devices there would have given him advance warning of the approaching train, and the collision probably would not have occurred. Since it is generally accepted that elimination of crossings increases transportation safety, crossings which are not necessary for traffic flow should be closed. The Safety Board believes that the low number of vehicles using the Stone, Lee, and Crestline Street crossings suggests that these crossings could be closed without adversely affecting traffic flow in the area. Our investigation also revealed that other railroad/highway grade crossings in the city are potential candidates for closing. The Napa Street crossing should be studied to determine if gates are warranted, especially with the increased traffic which can be expected if the other three crossings are closed.

Therefore, the National Transportation Safety Board recommends that the city of Spokane:

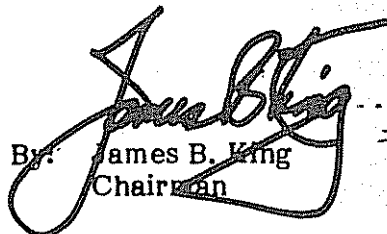
Examine the effects of closing Stone, Lee, and Crestline Street crossings using the Railroad-Highway Grade Crossing Handbook as a guide and take appropriate action to either close these crossings or install active crossing protective devices, and inform the Safety Board of the action taken. (Class II, Priority Action) (H-80-41)

Erect Railroad Advance Warning signs and pavement markings on Napa Street at the crossing with the Spokane International Railroad. The signs and markings and their installation should be in accordance with the Manual on Uniform Traffic Control Devices. (Class I, Urgent Action) (H-80-42)

Prohibit the parking of railroad boxcars within the critical sight triangle of those railroad/highway grade crossings where only passive control devices exist. Require that flagmen be provided when such standing is necessary during loading or unloading. (Class I, Urgent Action) (H-80-43)

Study and evaluate all other railroad/highway grade crossings in the city of Spokane, with a view to closing those not necessary for traffic flow and upgrading crossing protection where warranted, and inform the Safety Board of the action taken. (Class II, Priority Action) (H-80-44)

KING, Chairman, DRIVER, Vice Chairman, McADAMS, GOLDMAN, and BURSLEY, Members, concurred in these recommendations.


By: James B. King
Chairman