



Log H-586C

# National Transportation Safety Board

Washington, D.C. 20594

## Safety Recommendation

**Date:** MAR 13 1996

**In reply refer to:** H-96-8

Mr. Thomas J. Donohue  
President and Chief Executive Officer  
American Trucking Associations, Inc.  
2200 Mill Road  
Alexandria, VA 22314-4677

About 2:35 a.m. on May 2, 1995, National Railroad Passenger Corporation (Amtrak) train No. 81, the Silver Star, on its southbound run from New York, New York, to Tampa, Florida, struck an O&J Gordon Trucking Company tractor-lowbed semitrailer combination that had been lodged for 30 to 35 minutes on a rural, high-vertical-profile (hump)<sup>1</sup>, passive<sup>2</sup> grade crossing about 1 mile north of Sycamore, South Carolina. At the time of the accident, the train was using a single main line track belonging to CSX Transportation, Inc. (CSXT). The two locomotive units and 14 cars of the 16-car consist derailed. The tractor and semitrailer were substantially damaged. No fire ensued.<sup>3</sup>

The train was carrying 279 passengers, 9 service crew members, and 5 operating crew members. Thirty-three persons sustained minor injuries. Combined property damage to the train and truck exceeded \$1 million.

Amtrak train 81 struck the right side of the semitrailer. The lead locomotive came to rest on the west side of the track about 1,200 feet from the point of impact. The tractor and semitrailer separated, the tractor rotating clockwise about 260 degrees and coming to rest about 19 feet southwest of the crossing. The semitrailer rotated counterclockwise about 285 degrees and came to rest about 43 feet southeast of the crossing.

<sup>1</sup> A grade crossing where the railroad tracks are significantly elevated above the approaching roadway, creating a "hump" profile.

<sup>2</sup> A grade crossing with passive devices such as signs but lacking other visual or audible signaling devices or gates that automatically activate when a train approaches.

<sup>3</sup> For more detailed information, read Highway Accident Report--*Highway/Rail Grade Crossing Collision Near Sycamore, South Carolina, May 2, 1995* (NTSB/HAR-96/01).

The train was carrying 279 passengers, 9 service crew members, and 5 operating crew members. Thirty-three persons sustained minor injuries. Combined property damage to the train and truck exceeded \$1 million.

The Safety Board determined that the truckdriver failed both to understand that the substandard profile of the grade crossing was incompatible with the truck he was operating, and to notify appropriate railroad and emergency personnel of the blocked crossing. The Safety Board concluded that, like many truckdrivers, this driver was untrained in grade crossing safety and emergency notification procedures and was therefore unprepared to react appropriately to this situation.

Because time is critical when a vehicle becomes lodged on a grade crossing, it is imperative that a railroad be notified as soon as possible to allow them the greatest opportunity to notify any trains en route to the blocked crossing. In this accident, 30 to 35 minutes elapsed between the time the vehicle became lodged and the train reached the crossing. The Safety Board reconstructed the time that it likely would have taken for a call to 911 to have reached CSXT, and for a CSXT dispatcher to reach the train crew. The reconstruction suggested the process would take no more than 4 minutes. That would have been sufficient time for the train to have stopped short of the accident crossing. Consequently, the Safety Board concluded that had the driver taken the appropriate action and notified authorities shortly after becoming lodged, this accident would probably not have occurred.

The Safety Board has had a longstanding objective of improving safety at highway/rail grade crossings. Since 1976, the Safety Board has investigated more than 300 grade crossing accidents and has focused on the many safety issues involved at intersections where the paths of motor vehicles and trains meet. The Board has issued some 190 safety recommendations to Federal and State agencies, railroads, and safety organizations in an effort to have deficiencies corrected. Although the number of accidents and deaths at grade crossings has been reduced dramatically, grade crossing accidents continue to be the largest single source of fatalities and injuries involving railroad operations.

There are at least 168,000 public and 108,000 private grade crossings nationwide. Large commercial vehicles use these crossings frequently in the conduct of business. Since 1983, the Board has investigated at least 16 accidents in which lowbed vehicles lodged on grade crossings and were struck by trains. Two of those 16 accidents occurred during the investigation and report preparation process for this accident. The 16 accidents, all of them non-fatal, resulted in 296 injuries and more than \$19 million in property damage.

The Safety Board looked at several potential countermeasures that would improve driver awareness of hump crossings and possibly reduce the likelihood of collisions between trains and lowbed trucks. One of those countermeasures involved educating lowbed vehicle operators on the dangers of traveling over hump crossings, and advising them of what to do when vehicles become lodged/stalled. Clearly, all truckdrivers should be educated on how to avoid these crossings, and on how to notify police and/or railroad officials when emergencies occur.

The Safety Board believes that the ATA can play a significant role in enhancing grade crossing safety for all drivers by highlighting the hazards presented by hump crossings in ATA in-service training programs. This in-service training should also address emergency notification procedures to be used in the event of a grade crossing emergency. Drivers who become lodged at a grade crossing should be instructed to look first for any posted emergency notification information. If such information is not available, those drivers should be advised to dial 911 or contact the local police and ask that the railroad be notified.

Therefore, the National Transportation Safety Board recommends that the American Trucking Associations, Inc.:

Advise your membership of the circumstances of this accident, and during in-service training for all drivers, highlight the potential hazards associated with moving lowbed trailers over hump grade crossings. Include specific instructions for notifying authorities when emergencies or hazardous conditions exist at grade crossings. (Class II, Priority Action) (H-96-8)

Also, the Safety Board issued Safety Recommendations H-96-1 through -4 to the Secretary of Transportation; H-96-5 to the Federal Highway Administration; R-96-1 to the American Public Transit Association; H-96-6 and -7 to the American Association of Motor Vehicle Administrators; R-96-2 to the American Short Line Railroad Association; H-96-9 and -10 to Operation Lifesaver, Inc.; R-96-3 to Class I railroads and railroad systems; and H-96-11 and -12 to O&J Gordon Trucking Company. If you need additional information, you may call (202) 382-6208.

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility "to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations" (Public Law 93-633). The Safety board is vitally interested in any action taken as a result of its safety recommendations. Therefore, it would appreciate a response from you regarding action taken or contemplated with respect to the recommendation in this letter. Please refer to Safety Recommendation H-96-8 in your reply. If you need more information, you may call (202) 382-6208.

Chairman HALL, Vice Chairman FRANCIS, and Members HAMMERSCHMIDT, GOGLIA, and BLACK concurred in this recommendation.

By:   
Jim Hall  
Chairman