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National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Log: H-02-20

Date: AUG 8 2002

In reply refer to: H-02-12

All Class 1 and Regional Railroads
(List Attached)

The National Transportation Safety Board is an independent Federal agency charged by Congress with investigating transportation accidents, determining their probable cause, and making recommendations to prevent similar accidents from occurring. We are providing the following information to urge your organization to take action on the safety recommendation in this letter. The Safety Board is vitally interested in this recommendation because it is designed to prevent accidents and save lives.

This recommendation addresses the adequacy of railroad notification requirement and the consistency and availability of information regarding railroad notification. The recommendation is derived from the Safety Board's investigation of the November 17, 2000, tractor-trailer combination vehicle and train collision in Intercession City, Florida,[1] and is consistent with the evidence we found and the analysis we performed. As a result of this investigation, the Safety Board has issued eight safety recommendations, one of which is addressed to all class 1 and regional railroads. Information supporting this recommendation is discussed below. The Safety Board would appreciate a response from you within 90 days addressing the actions you have taken or intend to take to implement our recommendation.

On November 17, 2000, about 4:35 p.m., eastern standard time, near Intercession City, Florida, a 23-axle, heavy-haul vehicle, operated by Molnar Worldwide Heavy Haul Company, was delivering a condenser to the Kissimmee Utility Authority Cane Island Power Plant. The private access road to the plant crossed over a single railroad track owned by CSX Transportation, Inc. (CSXT). As the vehicle, traveling between 1 and 3 mph, crossed the tracks, the crossing warning devices activated and the gates came down on the load. Seconds later, Amtrak train 97, operated by the National Railroad Passenger Corporation, collided with the right side of the rear towed four-axle tractor. No injuries occurred. The collision destroyed the tractor and caused over $200,000 damage to the train and crossing signals.

[1] For additional information, read National Transportation Safety Board, *Collision Between Amtrak Train 97 and Molnar Worldwide Heavy Haul Company Tractor-Trailer Combination Vehicle at Highway-Rail Grade Crossing in Intercession City, Florida, on November 17, 2000*, Highway Accident Report NTSB/HAR-02/02 (Washington, DC: NTSB, 2002).

The National Transportation Safety Board investigated a similar accident that occurred on November 30, 1993, at the same location.[2] In that accident, an overdimenson, low-clearance vehicle operated by Rountree Transport and Rigging, Inc., was en route to deliver an 82-ton turbine to the electricity generating plant. The cargo deck of the transporter bottomed out on the roadway surface as the vehicle moved across the tracks. To gain sufficient clearance, the four-member truck crew shimmed the transporter while the cargo deck was on the tracks. About 12:40 p.m., the lights and bells at the grade crossing activated; the crossing gates descended, striking the turbine. Seconds later, Amtrak train 88, carrying 10 crewmembers and 89 passengers, struck the side of the cargo deck and the turbine. Six people sustained serious injuries and 53 suffered minor injuries. The vehicle and turbine were destroyed; the locomotive and first three railcars were damaged extensively. Total damage exceeded $14 million.

The National Transportation Safety Board determined that the probable cause of the November 2000 collision of Amtrak train 97 with the tractor-combination vehicle was the failure of the Kissimmee Utility Authority, its construction contractors and subcontractors, and the motor carrier to provide for the safe passage of the load over the grade crossing.

The CSXT railroad has a program to grant permits to oversize vehicles to pass over railroad crossings in Florida. According to a CSXT project manager, the CSXT has an agreement with the permit section of the Florida Department of Transportation (FLDOT), under which the FLDOT informs any trucking company applying for a State permit that the company needs to contact the CSXT to obtain the required railroad permits. (According to an FLDOT representative, none of the supervisors in the FLDOT permit offices was aware of any oral or written agreement with the CSXT to provide any information related to the railroad.) The CSXT project manager stated that the CSXT has no other method of receiving notification when oversize vehicles operate over CSXT tracks at grade crossings.

After receiving notice from a trucking company (the railroad requires a minimum 2-week notice), the CSXT issues a permit to the hauling company, charging $350 for this service, and sends an e-mail to the roadmaster, supervisor-train control, chief dispatcher, train master, and manager-billable expenditures, notifying them of the proposed date and time of the oversize/overweight vehicle move. The appropriate CSXT personnel then make arrangements to protect the move across CSXT tracks. The CSXT railroad further requires the trucking company to contact the roadmaster and the supervisor-train control at least 48 hours before the date of the planned move to verify all arrangements.

To determine railroad notification practices of other railroads, the Safety Board contacted representatives from the Burlington Northern Santa Fe (BSNF), Canadian Pacific (CP), Norfolk Southern (NS), Union Pacific, and Kansas City Southern (KCS) railroads.

All five railroads had programs to ensure the safe crossing of a slow-moving or low-clearance vehicle when notified of the intended crossing. The BNSF indicated that it also issued a permit to cross when a carrier supplied proof of insurance and release of liability forms. Most railroads indicated that they preferred a week's notice of an intended crossing but could be

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[2] For additional information, read National Transportation Safety Board, *Collision of Amtrak Train No. 88 With Rountree Transport and Rigging, Inc., Vehicle on CSX Transportation, Inc., Railroad Near Intercession City, Florida, November 30, 1993*, Highway Accident Report NTSB/HAR-95/01 (Washington, DC: NTSB, 1995).

flexible depending on the circumstances. Some railroads had internal procedures for alerting those that needed to know about a crossing and sent a flagger to the crossing. Others had the motor carrier or truckdriver call the dispatcher directly when at the crossing and either remain on the telephone until across the tracks or call after completing the crossing.

The KSC said that a vehicle operator can call the 1-800 number posted at the crossing or the number listed on the Web page, both of which are staffed 24 hours a day. The NS representative indicated that unless a motor carrier knew the correct telephone number, finding and contacting the right person in the railroad would be difficult.

None of these class 1 railroads indicated that a charge is made to the motor carrier for providing safe passage. CP indicated that if it does not have to move signal wires or appliances, a $500 deposit is required and that if signal devices must be moved and reinstalled, a $1,000 deposit is required. Once the move is completed, CP returns the balance. All railroads indicated that they charged for damages to track, signal, or warning devices.

The need to notify the railroad to obtain safe passage at a given highway-rail grade crossing should be evaluated individually for each at-risk vehicle. The evaluation should take into account the compatibility of the crossing configuration, including approach and departure grades, and the proximity to turns, as well as the vehicle configuration, including ground clearance, axle spacing, overall length, and vehicle speed.

The data needed to perform this evaluation are currently found in different places and are not readily available to all participants in the process. The States should have the public crossing configuration information, although the approach and departure grade records may not be current. Many States require a route survey only when the vehicle and load exceed a certain height. Yet route surveys are important to an evaluation of the need to notify the railroad before crossing and should routinely be part of this process. The Federal Railroad Administration (FRA) and the American Association of Railroads (AAR) maintain a highway-rail grade crossing inventory; the AAR/FRA Highway-Rail Grade Crossing Inventory is available on the internet. Although the inventory provides information about the proximity of an intersection, it does not include approach and departure grades or whether the crossing is humped. In addition, vehicle operators may not be aware the inventory exists.

The vehicle operator should know the configuration of the vehicle. Most States do not collect information about ground clearance or operating speed as part of the permit application process. The only point in the process at which all information becomes readily available is when the vehicle is at the crossing. Even then, the operator can notify the railroad only if an emergency number is posted at the crossing and if telephone access is available. Arrangements for a given railroad to protect the crossing take time (in the case of CSXT, 2 weeks) and, generally, space to safely park the vehicle is not available.

The notification process should be consistent and user-friendly for all participants. The vehicle operator needs to know when it is necessary to notify the railroad, which railroad to notify, and how to do so.

The AAR/FRA Highway-Rail Grade Crossing Inventory lists the railroad that controls a track if the vehicle operator can identify the crossing by location or knows the crossing number and is familiar with the FRA Web site inventory. In addition, most railroad Web sites publish the track routes. But once a vehicle operator knows which railroad to notify, finding the correct person to contact can be difficult. Various pages of the CSX Corporation Web site include the 1-800 emergency telephone number, and information about grade crossing safety, and a link to Operation Lifesaver, Inc., is also available. However, investigators found no one source that listed all essential steps that operators of low-clearance or slow-moving vehicles must take to ensure safety and no railroad contact information for the arrangement of crossing safety. Investigators examined the Web sites of the other major railroads with similar results. The Safety Board concludes that safety would be enhanced if the CSXT and other railroads publicized contact information, via the internet or other means, for those who need to arrange protection at grade crossings.

Therefore, the National Transportation Safety Board recommends that all class 1 and regional railroads:

> Provide easily accessed contact and notification information for use by vehicle operators requiring railroad assistance to ensure safety at grade crossings. (H-02-12)

The Safety Board also issued safety recommendations to the Federal Highway Administration, Federal Motor Carrier Safety Administration, National Committee on Uniform Traffic Laws and Ordinances, American Association of State Highway and Transportation Officials, and Kissimmee Utility Authority. In your response to the recommendation in this letter, please refer to H-02-12. If you need additional information, you may call (202) 314-6177.

Chairman BLAKEY, Vice Chairman CARMODY, and Members HAMMERSCHMIDT, GOGLIA, and BLACK concurred in this recommendation.

Marion Blakey

By: Marion C. Blakey
Chairman

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