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## **National Transportation Safety Board**

Washington, D.C. 20594

## **Safety Recommendation**

Date: August 6, 2001

**In reply refer to:** R-01-13

Mr. Frank Turner
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American Short Line and Regional Railroad Association
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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 the Union Pacific Railroad's (UP's) procedures for responding to train crews' reports of track problems. The recommendation is derived from the Safety Board's investigation of the December 20, 1998, derailment of Amtrak train No. 21 while operating on UP tracks in Arlington, Texas, and is consistent with the evidence we found and the analysis we performed. As a result of this investigation, the Safety Board has issued five safety recommendations, one of which is addressed to the American Short Line and Regional Railroad Association. 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.

About 7:00 p.m. central standard time, on December 20, 1998, Amtrak train No. 21, the *Texas Eagle*, derailed on UP track No. 1 in Arlington, Texas. Train No. 21 was en route from Chicago, Illinois, to San Antonio, Texas. The train was traveling westbound at a reduced speed of about 36 mph due to reports of rough track near milepost (MP) 231. Three locomotives and six cars derailed in a curve at MP 230.62. Of the 198 passengers and 18 employees on the train, 12 passengers and 10 employees were injured. No fatalities resulted from the accident. The damages were estimated at about \$1.4 million.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> For more information, see National Transportation Safety Board, *Derailment of Amtrak Train 21 on the Union Pacific Railroad at Arlington, Texas, December 20, 1998*, Railroad Accident Report NTSB/RAR-01/02 (Washington, D.C.: NTSB, 2001).

In its finding of the probable cause of this accident, the Safety Board determined that one causal factor was the decision of the dispatcher to delay notifying track department personnel that a train crew had reported encountering rough track.

Almost 3 hours before the derailment, an eastbound freight train crew reported to the train dispatcher that they had encountered rough track on main track No. 1 in the area of MP 231. The dispatcher did not relay the report to the track department or request that a track inspector or crew be sent to check the condition of the track. A few minutes behind the freight train was eastbound Amtrak train 22. The dispatcher radioed the engineer of train 22 that rough track had been reported at MP 231 and that he should be "governed accordingly." The Amtrak engineer slowed the train to about 35 mph as he approached the area. He said that as he passed the location of the reported rough track and began to accelerate, he observed what he described as a "kink" in the rail just east of MP 231. He successfully transited the area at between 25 and 30 mph. The engineer said he was unsuccessful in reaching the dispatcher by radio and thus did not provide a report of the observed rail defect or its location to the dispatcher.

About 2 1/2 hours after the passage of train 22, westbound Amtrak train 21 approached the area of reported rough track. The engineer had been advised of the report by the dispatcher, and he slowed his train as he approached MP 231. Although it cannot be known with certainty, the previous passage over the area by the eastbound freight and passenger train could have exacerbated the track problem and lowered the safe speed for subsequent trains. In any event, as train 21 transited the curve at about 36 mph near MP 231, it derailed. The Safety Board thus concluded that the reduced speed at which Amtrak train No. 21 attempted to transit the area of the previously reported rough track was greater than the condition of the track could support, causing the train to derail in the curve near MP 230.62.

When the eastbound freight train reported rough track, the dispatcher did not place a speed restriction on the area, nor did he notify track maintenance personnel and ask that the track be checked. He stated that he did not believe the warning from the freight train was serious enough to warrant delaying trains so that the track could be inspected, but he did plan to notify the track department after the two Amtrak trains had cleared the area. But he had no way of knowing the actual condition of the track or if that condition had been further degraded by the passage of the freight train itself. He had the authority to put a speed restriction in place at the location of the reported rough track, but he did not do so. A speed restriction of 10 mph, for example, may have been appropriate until the actual condition of the track could be determined. In the almost 3 hours that elapsed between the initial report and the derailment, the UP track department may have had ample opportunity to inspect the track and evaluate its safety. Even if immediate repairs were not possible, the speed restriction may have allowed safe passage until repairs could be made. The Safety Board therefore concluded that if the dispatcher had implemented an appropriate speed restriction and/or notified track maintenance personnel immediately after he received the report of rough track, the accident may not have occurred.

The day after the accident, the UP added additional requirements to its Operating Rule 21.9 via Train Dispatcher's Bulletin No. 60 for the Protection of Defects, requiring the dispatcher to immediately advise any train approaching an area that had been reported to have a defect on the same track to reduce its speed to no more than 10 mph and to notify the appropriate manager of track maintenance. A Safety Board survey of the policies and practices of other

class I railroads indicated that they require the train dispatcher to immediately call a track supervisor after receiving a report of rough track. These policies generally require that if a train reaches the rough track location before a track supervisor can evaluate the track, the train must stop and protect the location. Once stopped and once a supervisor—or, possibly, the crew—determines that the track is safe, the train may proceed at restricted speed. The survey revealed that the UP, the Burlington Northern Santa Fe Railroad, and Amtrak each have a specific operating rule or written dispatcher instruction that addresses events such as occurred in this accident.

The Safety Board is concerned that the guidance for dispatchers at most railroads does not have the force of a rule and therefore may not be adequate to ensure maximum safety for operating crews and intercity train passengers.

The National Transportation Safety Board therefore makes the following safety recommendation to the American Short Line and Regional Railroad Association:

Inform your member railroads of the circumstances of the December 20, 1998, derailment in Arlington, Texas, and urge them to ensure that their rules require train dispatchers, upon receiving reports of track problems, to immediately implement an appropriate speed restriction for the affected area and to immediately notify track maintenance personnel of the reported condition. (R-01-13)

The Safety Board issued this same safety recommendation to the Association of American Railroads. The Safety Board also issued safety recommendations to the Federal Railroad Administration and the Union Pacific Railroad. In your response to the recommendation in this letter, please refer to Safety Recommendation R-01-13. If you need additional information, you may call (202) 314-6607.

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

By: Carol J. Carmody Acting Chairman