



National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: October 26, 2007

In reply refer to: R-07-13

Honorable Rod Blagojevich
Office of the Governor
Statehouse
Room 207
Springfield, Illinois 62706

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 need for the State of Illinois to take action regarding the Regional Transportation Authority's (RTA's) failure to utilize its oversight authority to ensure the safety of the Chicago Transit Authority (CTA) rail system. The recommendation is derived from the Safety Board's investigation of the July 11, 2006, derailment of CTA train 220 in Chicago, Illinois, and is consistent with the evidence we found and the analysis we performed.¹ As a result of this investigation, the Safety Board has issued 14 safety recommendations, 1 of which is addressed to the State of Illinois. 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 Tuesday, July 11, 2006, about 5:06 p.m., central daylight time,² the last car of northbound³ CTA Blue Line train number 220 derailed in the subway between the Clark/Lake and Grand/Milwaukee stations in downtown Chicago, Illinois. About 1,000 passengers were on board the eight-car rapid transit train. Following the derailment, the train came to a stop, and electrical arcing between the last car and the 600-volt direct current third rail generated smoke. The single operator in the lead car received a number of calls on the train intercom. The operator exited the control compartment, stepped onto the catwalk, and walked beside the train to investigate.

¹ For more information, see <http://www.nts.gov/publicctn/2007/RAR0702.pdf>. National Transportation Safety Board, *Derailment of Chicago Transit Authority Train Number 220 Between Clark/Lake and Grand/Milwaukee Stations, Chicago, Illinois, July 11, 2006*, NTSB/RAR-07/02 (Washington, DC: NTSB 2007).

² All times are central daylight time.

³ The Blue Line track is generally aligned in a geographical north to south direction; however, the track in the area of the derailment was aligned in an east to west direction.

Electrical power was removed from the third rail, and most passengers walked to an emergency exit stairway about 350 feet in front of the train that led to the street level. Some passengers had to be assisted in their evacuation by emergency responders. The Chicago Fire Department reported that 152 persons were treated and transported from the scene. There were no fatalities. Total damage exceeded \$1 million.

The National Transportation Safety Board determined that the probable cause of the July 11, 2006, derailment of Chicago Transit Authority train number 220 in the subway in Chicago, Illinois, was the Chicago Transit Authority's ineffective management and oversight of its track inspection and maintenance program and its system safety program, which resulted in unsafe track conditions. Contributing to the accident were the Regional Transportation Authority's failure to require that action be taken by the Chicago Transit Authority to correct unsafe track conditions and the Federal Transit Administration's ineffective oversight of the Regional Transportation Authority. Contributing to the seriousness of the accident was smoke in the tunnel and the delay in removing that smoke.

Government Oversight of Safety

In 1991, the Safety Board conducted a safety study⁴ that addressed the safety oversight of rail rapid transit systems. On December 18, 1991, after considering the Board's safety recommendations and studies, Congress enacted the Intermodal Surface Transportation Efficiency Act of 1991 (Public Law 102-240), which added Section 289 to the Federal Transit Act. This required that those States that have a fixed-guideway system (such as CTA's), which is not regulated by the Federal Railroad Administration, to designate a State agency to oversee the safety of the guideway system. It also authorized the Federal Transit Administration (FTA) to withhold some transit funding should a State fail to implement a safety program.

In 49 *Code of Federal Regulations* Part 659, the FTA requires each State to designate an oversight agency to conduct safety and security oversight of its rail transit system. In Illinois, that agency is the RTA. The State agency (RTA) requires the transit agency (CTA) to develop a system safety program plan that includes elements identified by the FTA, and the State agency reviews the transit agency's compliance with the system safety program plan and its implementation of corrective actions to address safety deficiencies. At least every 3 years, the oversight agency must conduct an on-site review of the rail transit agency's implementation of its system safety program plan and system security plan, and prepare and issue a report (triennial report) containing findings and recommendations resulting from that review.

The FTA requires that system safety program plans include operating and maintenance rules and procedures to address safety related infrastructure such as track, including track inspections and maintenance. The rail transit agency must provide the State oversight agency with verification that the corrective action has been implemented or that a corrective action plan has been prepared to address findings from safety reviews. The State oversight agency must monitor the implementation of each approved corrective action plan.

⁴ National Transportation Safety Board, *Oversight of Rail Rapid Transit Safety*, Railroad Safety Study NTSB/SS-91/02 (Washington, DC: NTSB, 1991).

The RTA hired a contractor to conduct the Triennial On-Site Safety Review of the CTA's System Safety Program Plan. The report from the triennial review performed in 2004 listed numerous track maintenance and inspection safety issues that did not prompt any corrective actions, including the following: skewed or twisted track plates (on the Dearborn Subway) indicating ineffective fasteners that often indicate the existence of wide gage problems; deteriorated half-ties and areas of mud and excessive water on the track structure on the Red and Blue Lines; a large number of gage rods indicating large-scale track issues on the Red Line; lean levels of track inspection personnel as compared to other similar transit systems; and inadequate training of track inspection personnel.

The CTA was aware of these track maintenance and inspection deficiencies; however, most of the track deficiencies identified in the triennial review were still present when the accident occurred, about 18 months after the final report had been issued. The Safety Board is concerned that when asked why the RTA did not follow up on all the track safety issues identified in the triennial review, the RTA representative said that the RTA follows up only on findings in the triennial review and it did not consider these observations to be findings that would warrant further action.

Although the system safety reviews were an important step in identifying dangerous conditions on the CTA transit system, the RTA did not fully utilize its oversight authority. The RTA did not require the CTA to prepare corrective action plans to address all safety conditions identified in its review. Further, the RTA report highlighted positive findings that were inconsistent with the additional observations of serious safety conditions. The Safety Board concludes that because the RTA failed to follow up with the CTA and prompt action to correct safety deficiencies identified in the triennial report, unsafe track conditions continued to exist that should have been corrected.

Therefore, the National Transportation Safety Board makes the following recommendation to the State of Illinois:

Evaluate the Regional Transportation Authority's effectiveness, procedures, and authority, and take action to ensure that all safety deficiencies identified during rail transit safety inspections and reviews of the Chicago Transit Authority are corrected, regardless of whether those deficiencies are labeled as "findings," "observations," or some other term. (R-07-13)

The Safety Board also issued safety recommendations to the Federal Transit Administration, the Regional Transportation Authority, the Chicago Transit Board, and the Chicago Transit Authority. In your response to the recommendation in this letter, please refer to Safety Recommendation R-07-13. If you need additional information, you may call (202) 314-6177.

Chairman ROSENKER, Vice Chairman SUMWALT, and Members HERSMAN, HIGGINS, and CHEALANDER concurred in this recommendation. Vice Chairman SUMWALT and Member HIGGINS filed concurring statements, which are attached to the Railroad Accident Report for this accident.

[Original Signed]

By: Mark V. Rosenker
Chairman