



REASSESSMENT OF THE RESPONSE TO RAIL SAFETY RECOMMENDATION R96-14 - R95D0055

PROTECTION FOR PEDESTRIANS

BACKGROUND

On April 20, 1995, at approximately 1135 Eastern daylight time, Canadian National (CN) freight train No. 395, proceeding westward on CN's Kingston Subdivision, struck 2 pedestrians at the Park Street public crossing (Mile 125.15) in Brockville, Ontario. Both pedestrians were fatally injured.

The Board determined that the 2 pedestrians stepped into the path of the westward train while their concentration was fixed on a passing eastward train. The lack of restriction of pedestrian access to the tracks, and the absence of additional visual and audible alarms when the subsequent train entered the crossing circuit, contributed to the accident.

In spite of the warning and alerting systems already required at multiple-track crossings, pedestrians in populated areas remain vulnerable to misinterpreting the available cues, unwittingly assuming that the way will be clear after the passage of the train in sight.

The Board concluded its investigation and released report R95D0055 on 03 December 1996.

Board Recommendation R96-14 (03 December 1996)

In consideration of the facts of this occurrence, the Board recommends that:

The Department of Transport, in cooperation with the railways, the provincial and local authorities, implement, on a priority basis, a program to upgrade the pedestrian protection systems on those multiple-track mainline crossings in populated areas warranting immediate attention.

R96-14

Response to R96-14 (11 February 1997)

Transport Canada (TC) accepted the intent of the Board's recommendation. TC indicated that they were undertaking studies of second train warning systems, consulting with CN on the issue, and identifying crossings in populated areas with significant pedestrian traffic. TC identified 6 crossings where second train fatalities had occurred since 1988 and was identifying the circumstances to characterize crossings that would meet the criteria laid out in the Board's recommendation.

TC also indicated that a draft report on second train warning systems would be provided to the Board in 1997.

Board Assessment of Response to R96-14 (19 March 1997)

This response was assessed as “Satisfactory Intent”.

Additional Response to R96-14 (July 2006)

TC forwarded an update which stated:

The Board made its recommendation based on the investigation of one accident. It is a very broad statement without supporting statistics or trends and significant questions have to be answered: What is the extent of 2nd train occurrences involving pedestrians; what effective solutions can be implemented; and, is the expense warranted.

The Department’s investigation reveals that accidents involving a second train and pedestrians are a rare occurrence. Furthermore, most multiple track grade crossings installed in populated areas are already equipped with an automatic warning systems designed to properly warn vehicles and pedestrians, provided the highway users pay attention to the flashing lights, gates and bell.

The Department investigated all known pedestrian accidents for the period of 1988-1998 to isolate accidents involving second trains. As such, an in-depth analysis of Police and coroner’s reports has shown many instances of highway users ignoring the warnings:

A vehicle occupant that came out of his car, alcohol involvement, pedestrians/cyclists went around/under a lowered gate, suicide, location clearly outside the qualification, warranting immediate attention, crossing diagonally in the middle of the street, racing the train.

The project on an active warning system for the approach of a second train was completed in 2005. The proposed risk model remains to be evaluated. A pictogram for second train warning sign was developed and a proposal is being prepared for presentation at the 2006 fall technical meeting of the Transportation Association of Canada.

The Ontario and Quebec regions currently promote the installation of the sign. The Department is now considering a guideline for active or passive warning systems for pedestrians. Many improvements have been made for pedestrians, namely in Quebec and Ontario, going beyond the Board’s ambiguous recommendation.

This recommendation remains open for TC.

Board Reassessment of Response to R96-14 (August 2006)

In TC’s first response, they concurred with the intent of the recommendation. This most recent response is much less positive, challenging the underlying deficiency and suggesting the Board’s recommendation is ambiguous. TC asks what new systems should be considered and whether they would have to be economically justifiable. They state that current crossing warning systems are adequate in most cases and that many initiatives are underway. It is additionally implied that many of the accidents should not have been considered as second train accidents in light of their specific circumstances.

The Board's recommendation was sound and clearly written. The deficiency identified is systemic, and second train pedestrian fatalities are significantly higher, as a proportion of all crossing fatalities in 2006 than in 1995 when the specific accident occurred. The Board concludes that while TC had an initial appreciation of the deficiency and of the need for improved warning systems, there was no acknowledgement of the severity of the situation in their response of July 28, 2006.

TC had not identified any actions that would address the deficiency. Therefore the Board assessment of this response is "**Unsatisfactory**".

Next TSB Action

On September 6, 2006, the Board publicly released their final report into the fatality of a pedestrian at a similar crossing in Brockville on 17 February 2005. This report included a recommendation, R06-02, to address this continuing safety deficiency which supersedes Board Recommendation R96-14.

The Board will assess TC's response to that recommendation. As a result, this file is assigned an "**inactive**" status.

Additional Response to R96-14 (December 2010)

TC Rail Safety has developed a tool to evaluate the risk to pedestrians at grade crossings. All multi-track main-line crossings located in the provinces of Québec, Ontario and British Columbia, as quoted in Appendix B of Report R05T0030 from the Board, have been evaluated using this tool by TC Rail Safety Inspectors. The results are being analyzed and further action may be taken if required to reduce the risks at certain crossings. Safety to pedestrians has been an integrated part of TC's documentation (Pedestrian Safety at Grade Crossings Guide, Canadian Road/Railway Grade Crossing Detailed Safety Assessment Field Guide) and safety assessments done by communities and the industry all incorporate pedestrian issues. RTD10 standards include details for pedestrian crossing protection. The Field Guide includes requirements for "Z" barriers at 2 or more tracks where train whistling is prohibited. As an indicator, since 2005 projects aimed at improving pedestrian safety have regularly been included in the TC funded Grade Crossing Improvement Program. TC's guidelines to cease the use of train whistling at a grade crossing require that the safety assessment identify and resolve any pedestrian issues at grade crossings.

Board Reassessment of Response to R96-14 (February 2011)

TC has implemented programs to upgrade pedestrian protection systems on multiple track main-line crossings and included pedestrian crossings in the Grade Crossing Improvement Program.

TC has also established that any pedestrian safety issues be resolved prior to approving anti-whistling at crossings. Therefore, the Board reassesses the response to recommendation R96-14 as "**Fully Satisfactory**".

Next TSB Action

This file is assigned a "**Closed**" status.