



REASSESSMENT OF THE RESPONSE TO RAIL SAFETY RECOMMENDATION R06-02 - R05T0030

IMPLEMENTATION OF ENHANCED PEDESTRIAN PROTECTION

Background

On 17 February 2005, at approximately 1515 Eastern standard time, Canadian National (CN) freight train Q-106-41-15, proceeding eastward on the CN Kingston Subdivision, struck 2 pedestrians at the Bartholomew Street public crossing (Mile 124.88), Brockville, Ontario. One pedestrian was fatally injured; the second received serious injuries. The 2 pedestrians stepped into the path of the eastward train after the passage of a westward train.

Board Recommendation R06-02 (12 January 2006)

Since 1996, Transport Canada (TC) has conducted significant research into pedestrian safety at railway crossings. Efforts have been made to identify the scope of the second-train safety issue, and to develop specific, cost-effective technology that addresses pedestrian safety at crossings. Work towards pedestrian safety has been initiated by TC in locations such as Kingston and Cobourg, Ontario, and along rail lines with commuter service in the Montréal area, Quebec, and in Chilliwack, British Columbia.

Despite these efforts, the current program has not given adequate attention to the communication, promotion and implementation of solutions, such as crossing guards and pedestrian gates that are already being applied with some success. TC's ongoing research is almost exclusively focused on the development and deployment of a cost-effective second-train warning system, to the exclusion of other solutions that have been implemented at some locations in Canada. TC's research into the location of crossings with potential for second-train events and the level of awareness of affected communities has not been shared outside the circle of direct research participants. Response to date has not resulted in a measurable reduction in the number of pedestrian injuries or fatalities at grade crossings.

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Therefore, the Board recommends that:

The Department of Transport assess the risk to pedestrians at all multi-track main-line crossings, make its assessment public and implement a program, in conjunction with stakeholders, to mitigate the risk of second-train pedestrian accidents.

R06-02

Response to R06-02 (28 November 2006)

Transport Canada has carefully and thoroughly reviewed the Board recommendation and is in disagreement with the recommendation as stated. The recommendation is very broad, without supporting sound statistics or trends, thus failing to justify the effort to carry safety assessments at all multi-track main line grade crossings in Canada with a view to assessing the risk to pedestrians.

It is the Department's opinion that assessing all multi-track main line crossings in Canada would not be productive in light of all the studies and safety improvements that have been carried out with respect to pedestrian safety. The Department has made significant efforts since 1995, in opposition to the opinion expressed by the Board in its report and in other forums. Major improvements to pedestrian safety, such as pedestrian gates, maze barriers, guide fencing, walk don't walk lights, signage, have been carried out to many locations and TC has contributed about \$2M towards some of those projects, through its Grade Crossing Improvement Program. During 2006, TC Railway Safety Inspectors from Ontario and Quebec regions have contacted many municipalities and examined multi-track main line grade crossings with respect to safety of pedestrians. The Ontario Region also facilitated the assessment of all grade crossings in the City of London, Ontario, which included the safety of pedestrians.

The Department takes very seriously every recommendation made by the Board on selected railway occurrences, nevertheless, it is also very important for TC to allocate its resources on what the Department perceives to be its highest risks pursuant to its analysis of all rail safety issues.

Transport Canada must balance a multitude of competing interests when determining what steps, if any, it should and ought to take in terms of railway safety and TC will continue to diligently work with railway companies and communities to improve safety for pedestrians and facilitate safety assessment of grade crossings.

Additional Response to R06-02 (06 December 2006)

Transport Canada (TC) Rail Safety has noted that the Transportation Safety Board (TSB) elected not to investigate further the accidents listed in Appendix "A" of TSB Final Report R05T0030.

Rail Safety provided the TSB with valuable information following its own review of those accidents. It would seem that the Board did not consider this additional information provided by the Directorate on the ground that the majority of these occurrences have not been validated.

The question remains as to how the TSB can use Appendix "A" as support for its argument if it considers the information has not been validated. It is unfortunate that the TSB still introduces the complete list as evidence of a large number of second train occurrences that can be addressed by practical measures to assist or protect pedestrians using the sidewalk when, in 15 out of the 20 accidents, it contains peculiar circumstances such as cyclists riding in the middle of a road, severe cases of intoxication, suspected suicide, standing behind or going around a lowered gate, and, in a rural location clearly outside the parameters of Recommendation R96-14 (issued in December 1996) and described in the TSB's own database as occupants of a vehicle stopped at a crossing, when one of the occupants got out of the vehicle and proceeded between the rails.

It is also disappointing that the TSB did not accept the suggestion in the Department's letter of April 28, 2006, in response to the TSB draft report, to include more statistics from its valuable database and provide an actual account of pedestrian accidents in Canada at grade crossings by cause, age, and location. The number of pedestrian fatalities has remained relatively constant and low since 1995 and the TSB is using percentage instead of actual numbers to represent the proportion of accidents which can easily provide misleading results when dealing with very small numbers; every additional fatality may represent a five percent (5%) increase. In addition, the real argument for this specific investigation is the number of accidents involving a second train and pedestrians that may be reduced by protected measures, not all accidents involving pedestrians.

In view of the information stated above, it is felt that the TSB Final Report R05T0030 is not as complete as it could have been, thus, missing a valuable opportunity to better inform and educate the public in regards to the issues related to pedestrians and second trains.

Board Assessment of Response to R06-02 (06 December 2006)

The two, markedly similar, accidents that occurred in Brockville in 1995 and 2005 indicate strongly that a problem existed, which was not mitigated by any regulatory actions. Although TC assembled a list of crossings with a potential for second train accidents, there is no record of any effort to identify pedestrian volumes at those crossings. This is fundamental to assessing the exposure of pedestrians to a possible second train event.

TSB statistics are summaries, whether for pedestrians at risk of second train events, or vehicles exposed to the same risk. The specifics for either case vary according to the particular accident. While figures for pedestrian related fatalities are generally the same as they were 10 years ago, their proportion of total crossing fatalities is increasing. This fact is also mirrored in statistics from the United States. While improvements are occurring in the area of vehicle fatalities, they are not in the area of pedestrian fatalities.

In view of TC's reluctance to acknowledge that this situation exists, the Board assesses the response to Board Recommendation R06-01 as **Unsatisfactory**.

Additional Response to R06-02 (29 February 2008)

TC indicates they will be concentrating efforts to improve pedestrian crossings in populated areas. TC has participated in the development of a second train warning system. They have developed a passive sign to warn pedestrians of the possibility of a second train. This sign has been installed at locations in Quebec, and there is a proposal to use it in Ontario. TC has started a project to develop criteria for warning system installations for pedestrian safety. TC is also collaborating with the FRA who is looking at standards for pedestrian safety. TC has developed a *Pedestrian Safety at Grade Crossing Guide*.

Board Reassessment of Response to R06-02 (March 2008)

TC has acknowledged the existence of the safety deficiency and has described action which, if implemented in full, will substantially reduce or eliminate the safety deficiency. However, the action has not been sufficiently advanced to reduce the risks to transportation safety. Therefore, the Board reassesses the response to recommendation R06-02 as **Satisfactory Intent**.

Additional Response to R06-02 (January 2010)

TC Rail Safety has developed a tool to evaluate the risk to pedestrians at grade crossings. Most multi-track main-line crossings have been evaluated by TC Rail Safety Inspectors and the results are being further analyzed.

Board Reassessment of Response to R06-02 (January 2010)

TC is progressing with safety action which may substantially reduce or eliminate the safety deficiency. However, it is too soon to assess the effectiveness of this action. Therefore, the Board reassesses the response to recommendation R06-02 to remain as **Satisfactory Intent**.

Additional Response to R06-02 (December 2010)

All multi-track main-line crossings located in the Provinces of Quebec, Ontario and British Columbia, as quoted in Appendix B of report R05T0030 from the Board, have been evaluated 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 Guide) and safety assessments done by communities and the industry all incorporate pedestrian issues. Projects aimed at improving pedestrian safety have 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 R06-02 (February 2011)

Transport Canada has evaluated all the multi track main-line crossings as identified in the report. Transport Canada has also included pedestrian crossings in the Grade Crossing Improvement Program and required any pedestrian safety issues to be resolved prior to approving anti-whistling at crossings. Therefore the Board reassesses the response to recommendation R06-02 as **"Fully Satisfactory"**.

Next TSB Action

This file is assigned **Closed** status.