



## Reassessment of the responses from Transport Canada to Rail Safety Recommendation R04-02 - R02W0063

### Educational and Training Material for Drivers

#### Background

At 1612 central daylight time on 02 May 2002, Canadian National (CN) train E20251B30, proceeding eastward to Toronto, Ontario, from Edmonton, Alberta, derailed two locomotives and 21 freight cars after colliding with a loaded southbound tractor-trailer. The collision occurred at a public crossing near Firdale, Manitoba, at Mile 88.83 of CN's Rivers Subdivision. The derailed equipment included five tank cars carrying dangerous goods. During the derailment, four of the tank cars sustained multiple punctures and released their products. The products ignited and a large fire engulfed the derailed cars. A fibre-optic cable was severed and the Trans-Canada Highway was closed briefly. A total of 156 people were evacuated from the vicinity of the derailment for two days. There were no significant injuries to either the train crew or truck driver.

Increased awareness of rail crossing safety for professional drivers is a crucial step in minimizing the number of these crossing accidents involving heavy trucks. The TSB is of the opinion that an effort to increase truck driver awareness of the hazards involved at railway crossings could come from Direction 2006. This program, sponsored by Transport Canada (TC) and the Railway Association of Canada, is described as "... a partnership between all levels of government, railway companies, public safety organizations, police, unions and community groups whose objective is to reduce grade crossing collisions and trespassing incidents by 50 per cent by the year 2006." As such, Direction 2006 is in an excellent position to involve the regulator, the provinces, and the trucking industry in an educational initiative to reduce accidents between trucks and trains.

#### Board Recommendation R04-02 (08 October 2004)

While Operation Lifesaver, a crossing awareness initiative by the railways and the regulator, has literature pertaining to the issue, it is not clear that the information is getting widespread distribution to professional drivers. Therefore, the Board recommended that:

The Department of Transport, in consultation with the provinces and the trucking industry, review and update, as necessary, educational and training material for drivers with respect to the risks associated with a heavy vehicle negotiating a public passive railway crossing.

R04-02

### **Response to R04-02 (11 January 2005)**

A response from the Minister advised that Transport Canada (TC) agreed with the Board that, through awareness and education, risks associated with heavy vehicles negotiating public passive railway crossings may be mitigated.

Further to the TSB's recommendation, TC officials attended a meeting of the Canadian Council of Motor Transport Administrators Standing Committee on Drivers and Vehicles on 04 November, 2004 and raised the need to review and update, as necessary, education and training material for truck drivers with respect to the risks associated with heavy vehicles negotiating public passive railway crossings. The Committee agreed to consider this recommendation.

As part of Direction 2006, over 50 different promotional tools have been developed in close association with provincial safety councils and the trucking industry. These materials include professional driver-focused material for truckers, school bus drivers and emergency responders, and also materials targeting those using farm crossings.

Direction 2006 is making good progress. To this point, since 1996, grade crossing collisions and trespassing incidents have been reduced by 70 per cent and 98 per cent of the target respectively, in spite of dramatic increases in road use and urban development around railway lines.

### **Board Assessment of Response to R04-02 (May 2005)**

Direction 2006 (TC) and Operation Lifesaver (Railway Association of Canada) have produced and distributed safety material including three videos, instructors guides and safety quizzes concerning Highway-Railway Crossing Awareness Training for Truck Drivers, School Bus Drivers and Emergency Responders.

Transport Canada has raised the need for improved driver training with the Canadian Council of Motor Transport Administrators (CCMTA) Standing Committee on Drivers and Vehicles, but the issue is only under consideration. While Direction 2006 is a sound initiative, accidents involving heavy trucks do not appear to be diminishing significantly. For instance, in 2004, the TBS database indicates 17 accidents involving vehicles described as either heavy trucks, dump trucks, tractor-trailers, semi-trailers or logging trucks, compared with 21 in 1996. To date, (18 April 2005), there have been eight such occurrences. As far as the overall Direction 2006 statistics supplied by TC are concerned, they do not match TSB records.

TC agrees with the recommendation and has sponsored actions that should result in improvements. While TC's response is positive, the reduction of heavy vehicle accidents has not advanced sufficiently to reduce the risks to transportation safety. Therefore, the response to R04-02 is assessed as being Satisfactory Intent.

### **Board Reassessment of Response to R04-02 (December 2005)**

No further information has been received, so the Board maintains the assessment of response to this recommendation as Satisfactory Intent.

### **Additional Response to R04-02 (July 2006)**

In TC's update in July 2006, TC advises that it has no update at this time.

## **Board Reassessment of Response to R04-02 (September 2006)**

No further information has been received, so the Board maintains the assessment of response to this recommendation as Satisfactory Intent.

## **Additional Response to R04-02 (February 2008)**

TC provided an additional response as follows. With the assistance of Operation Lifesaver, Transport Canada will continue to address truck safety at grade crossings with the trucking industry. TC also intends to communicate with all provincial ministries of transportation with respect to safety at grade crossings for trucks. These discussions will focus on trucks that carry high, heavy or wide loads (dimensional). Enforcement activities have already been taken in this regard by Railway Safety inspectors.

Under the umbrella of Direction 2006, the program took a number of steps to address the TSB recommendation and also to address the increasing level of non-compliance to warning devices by truck drivers.

To start, Direction 2006 developed an educational and information kit focused on professional truck drivers. The kit consisted of a video and CD providing information on potential dangers at grade crossings when truck drivers do not obey warning signs. Also included in the kit was an instructor's manual that provided necessary information for truck driver training schools on rail safety information. A test to be handed out to truck driver students has also been included in the kit. The kit also provided information for licensed drivers who are required either by provincial law or trucking companies to take refresher training.

An information brochure was developed for mass distribution at truck stops and gas stations along Canada's highways. The brochure was also sent to trucking companies, law enforcement agencies and various trucking associations for distribution to their members.

All of the above material was developed in partnership with provincial governments, railway authorities, law enforcement, the Canadian trucking industry and TC.

To ensure adequate distribution, Direction 2006 issued two contracts for delivery of the educational material. The first was to a consultant with experience in the trucking industry to introduce the material to trucking companies and coordinate educational efforts across Canada. A monthly conference call to discuss common safety concerns was established with the following participants:

- the trucking industry,
- provincial authorities,
- the rail industry,
- Transport Canada,
- Operation Lifesaver,
- provincial safety councils and leagues,
- the Canada Safety Council, and
- the Co-Op which represented private truck drivers.

Information sessions were held at many trucking companies across Canada to highlight truck/train safety matters. There were also efforts in Quebec, Alberta and Manitoba through various associations. Direction 2006 issued a contract for the distribution of truck/train safety-related information along Highway 401 in Ontario. Similar information was also distributed in Quebec, Alberta and Manitoba. Direction 2006 also developed a public service announcement for both radio and TV broadcast.

Under Direction 2006, in partnership with the Ministère des transports du Québec, l'École polytechnique de Montréal and the Transport Canada Development Centre, a study was done on truck stopping distances and start up times to establish whether truck drivers had adequate time to come to a complete stop when a train approaches both passively protected and automatically protected crossings.

Many of these initiatives were incomplete when the Direction 2006 program ended. Subsequent to the expiration of Direction 2006, TC's Railway Safety Directorate formed the "Community Outreach and Partnership Program." The newly created program plans to submit a proposal to re-introduce funding to continue blitzes along major travelled highways in Canada and to work with provincial authorities to continue the distribution of educational material aimed at improving safe truck operation at crossings.

### **Board Reassessment of Response to R04-02 (March 2008)**

Educational and training material has been reviewed, updated, and distributed to a wide audience in the trucking industry. However, TSB statistics indicate no reduction in crossing accidents involving tractor-trailers. The last seven years' accident rate shows that there continue to be just over 28 tractor trailer crossing accidents per year. This lack of change in accidents indicates that, despite all the efforts of TC, Operation Lifesaver and the Direction 2006 program, the target market is not being reached. Additionally, not all provincial literature for truck drivers include adequate information on the potential dangers faced by heavy trucks passing over railway crossing.

In consideration of the significant safety action taken, but the lack of reduction in the accident rate, the Board reassesses the response to this recommendation as Satisfactory in Part.

### **Additional Information on Safety Action (June 2010)**

A review of TSB statistics reveals that crossing accidents involving tractor-trailers has declined by 32.3 per cent during 2009 compared to the five-year average during 2004 to 2008. During the same period, crossing accidents in general declined by 21.3 per cent. The total train-miles declined 14.6 per cent during this time period.

### **Board Reassessment of Response to R04-02 (16 September 2010)**

Regardless of the accident rate, educational and training materials for drivers with respect to the risks associated with a heavy vehicle negotiating a public, passive railway crossings have been updated. The Board reassesses the response to this recommendation as Fully Satisfactory.

### **Next TSB action**

This deficiency file is **Closed**.