

RAILWAY OCCURRENCE REPORT

CROSSING ACCIDENT

CANADIAN NATIONAL  
CN FREIGHT TRAIN NO. 404-5A-22  
MILE 102.85, YALE SUBDIVISION  
FORT LANGLEY, BRITISH COLUMBIA  
22 SEPTEMBER 1994

REPORT NUMBER R94V0206

The Transportation Safety Board of Canada (TSB) investigated this occurrence for the purpose of advancing transportation safety. It is not the function of the Board to assign fault or determine civil or criminal liability.

## Railway Occurrence Report

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### *Summary*

A Canadian National (CN) freight train proceeding eastward on the north track of the two-track main-line on the CN Yale Subdivision struck a commercial garbage truck at a public crossing at Mile 102.85, in Fort Langley, British Columbia.

The driver of the truck and a passenger in the truck were fatally injured.

*Ce rapport est également disponible en français.*

## *Other Factual Information*

At approximately 1600<sup>1</sup>, eastward CN freight train No. 404-5A-22, consisting of 2 locomotives, 1 loaded car and 53 empty cars, approached the crossing travelling at a speed of approximately 50 mph in a 50-mph speed zone. The lead locomotive's headlight and ditch lights were illuminated.

At the crossing at Mile 102.92, approximately 340 feet west of the crossing at Mile 102.85, the train crew observed a southbound commercial garbage truck approaching the crossing. Approximately 150 feet west of the crossing, when it was apparent that the truck was not stopping, the crew members initiated an emergency brake application. The truck stopped on the crossing. The driver appeared to be trying to shift gears or moving to abandon the vehicle.

The police investigation revealed that the length of the skid marks at the crossing indicated that the speed of the truck was such that it could not have stopped at the stop sign.

Locomotive event recorder data indicated that the emergency brake application occurred at a recorded time of 1557:45 and a recorded speed of 50 mph. Whistling activity was shown at a recorded time of 1557:30, 1557:41, 1557:42 and 1557:43. Before a recorded time of 1556:00, whistling was very frequent over a period of five minutes. Bell ringing was shown to have been initiated at a recorded time of 1557:10, continuing until the train stopped.

The truck was destroyed as well as a vehicle and a boat trailer in the parking lot. Another vehicle in the parking lot was damaged. The train was brought to a stop approximately 1,580 feet east of the crossing.

The crossing was equipped with standard reflectorized railway crossing signs. For southbound traffic, the crossing sign is located approximately 4.6 m from the north rail of the north main track. A standard highway stop sign is located approximately 2.4 m in advance of the crossing sign. From approximately 20 m north of the crossing, the road ascended at a grade of about nine per cent towards the crossing and then levelled out at the crossing.

At the stop sign, southbound traffic had severely restricted visibility of eastward trains due to large trees on private property in the north-west quadrant of the crossing. At the crossing sign, the sight-line for southbound vehicles of eastward trains was in excess of one mile.

At the time of the accident, the weather was clear and calm with good visibility and a temperature of 26 degrees Celsius. The sun was situated approximately 45 degrees from the horizon to the south-west.

As far back as 1978, the landowner is on record as being unwilling to have the trees removed. Before 1988, there were no statutory provisions available to force property owners to remove or submit to the removal of obstacles on their property to improve sight-lines at railway crossings. The *Railway Safety Act*, assented to in 1988, rectified this deficiency by specifically stating in sub-subsection 24(1)(e) that regulations may be made to remove trees or bush on private property that may constitute a threat to safe railway operations. To date, the regulatory body, Transport Canada, has not developed the required regulations and removal of such obstacles still requires the consent of the landowner.

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<sup>1</sup> All times are Pacific daylight time (Coordinated Universal Time (UTC) minus seven hours) unless otherwise stated.

The coroner reviewed the service records of the truck and determined that several notations had been made indicating that the clutch needed adjustment. BFI, the company which owned the truck, stated that their vehicles are serviced daily and immediate repairs are made to identified problems. No information surfaced which would indicate that the subject vehicle had a defect which impaired its safe operation. The truck was deemed to be too badly damaged for a mechanical inspection to provide information as to the existence of pre-collision defects.

## *Analysis*

The train approached the crossing at the authorized maximum speed with the headlight and ditch lights lit as required. Based on the recorded train speed, train crew observations and other event recorder data, it is evident that the collision occurred at a recorded time of 1557:47 (two seconds after the emergency brake application). Whistling activity for the crossing was therefore initiated approximately 17 seconds before and about 1,314 feet from the crossing or about the required 1,320-foot distance.

The last whistling events occurred approximately six seconds before the collision from about 588 feet, and four seconds before the collision from about 296 feet.

The truck moved onto the crossing and stopped without apparently having first stopped at the stop sign. The driver's view of the approaching train was restricted by the trees in the north-west quadrant adjacent to the stop sign. It was necessary to move closer to the crossing to check for approaching eastward trains. The effect of the stop sign was therefore lost. The position of the sun may also have impaired the driver's ability to see to the west. Considering the operation of the locomotive bell and whistle and the lit headlight and ditch lights, the driver of the truck had sufficient information to become aware of the approaching train. However, considering the restricted nature of the sight-line in the north-west quadrant, extreme vigilance was necessary to negotiate this crossing safely.

## *Findings*

1. The train was operated in accordance with company procedures and government safety standards.
2. The passive warning signs were in good condition and properly located.
3. The sight-line to the west at the stop sign for southbound vehicles was severely restricted by large trees. Extreme vigilance was required to negotiate the crossing safely.
4. There are currently no regulations in place requiring the removal of trees or bushes on private property that may constitute a threat to safe railway operations.
5. The driver of the truck may have had difficulty in seeing the eastward train because of the position of the sun at the time of the occurrence.
6. The driver of the truck did not respond to the approach of the train and drove onto the tracks without apparently realizing the imminent danger.

## *Causes and Contributing Factors*

The driver of the truck did not respond to the audible warnings of the approaching train and moved onto the track in front of the approaching train.

The restrictive sight-line at the stop sign for southbound traffic or the position of the sun may have contributed to the driver of the truck not stopping before the crossing.

## *Safety Action Taken*

As an interim measure, stop lines were painted on the pavement at the crossing and the stop sign on the north side of the crossing was relocated to provide improved visibility. In February 1996, an automatic warning system consisting of flashing lights, gates, and bells was installed at this crossing.

## *Safety Concern*

Although the *Railway Safety Act* contains a provision allowing Transport Canada to make regulations requiring the removal of trees or bush on private property, these regulations have not yet been promulgated.

The Board is aware that this process can be time-consuming. However, the Board is concerned that, without this type of regulation, trees or bushes on private property may continue to restrict sight-lines resulting in decreased public safety at these crossings.

*This report concludes the Transportation Safety Board's investigation into this occurrence. Consequently, the Board, consisting of Chairperson, John W. Stants, and members Zita Brunet and Maurice Harquail, authorized the release of this report on 30 April 1996.*