



REASSESSMENT OF THE RESPONSE TO RAIL RECOMMENDATION R00-03

Immediate reporting of operational delays

Background

On 01 March 1998, at approximately 1531 mountain standard time, Canadian National (CN) freight train A-447-51-01 (train 447) collided with the rear end of stationary CN freight train C-771-51-28 (train 771) at Mile 165.4 of CN's Edson Subdivision, near Obed, Alberta. The two crew members in the lead locomotive on train 447 were seriously injured. The last car from train 771 and the lead locomotive from train 447 derailed and both sustained extensive damage. There were no dangerous goods involved.

The Board determined that the collision occurred when the crew of train 447, who had assumed that train 771 was at least 1.5 miles further ahead, did not maintain adequate vigilance, resulting in insufficient time to bring the train to a stop before colliding with the rear end of train 771. The assumption that train 771 was further ahead, was based on the crew's interpretation of an automated voice transmission provided by a Wayside Inspection System (WIS). Contributing to this accident was lack of accurate information regarding the location of train 771; inadequate dissemination of information regarding the nature of WIS broadcasts to operating crews; and poor visual conspicuity of the rear of train 771.

The Board concluded its investigation and released report R98C0022 on 16 May 2000.

Board recommendation R00-03 (May 2000)

The effective and safe operation of a railway is largely dependent upon accurate and timely communications between the RTC and the others whose work may affect or be affected by train operation. The interpretation of "prompt advising", per existing rules, does not always promote timely notification to the RTC, trains and others in the vicinity when a train is being delayed and poses a safety risk. Immediate communications on recognition of the potential for train delays promotes timely adjustment by others affected. Therefore, the Board recommends that:

The Department of Transport ensure that an assessment is made of the suitability of current Canadian Rail Operating Rules and railway instructions concerning the immediate reporting of operation delays to all concerned when there is a safety risk.

R00-03

Response to R00-03 (August 2000)

Transport Canada (TC) accepted the recommendation. TC continued to work with the Railway Association of Canada (RAC) to ensure that the requirements of the CROR provide the highest level of safety and clarity for the railway industry. In this regard, TC ensured that of the Board's recommendation was brought to the attention of RAC's membership. In addition, TC corresponded with the RAC and requested a review of the wording of CROR Rule 85.

Rule 85 on Reporting Delays states "*The conductor of each train will ensure that the RTC is promptly advised of any known condition which may delay the train.*" TC indicated that they interpret the word "promptly" as being the immediate notification of any train delay.

Board assessment of the response to R00-03 (September 2000)

TC informed the TSB that they have continued to work with the Railway Association of Canada (RAC), ensuring that the RAC and its membership are aware of the Board's recommendation concerning suitability of current rules and railway instructions prescribing the prompt reporting of operating delays to all concerned when there is a safety risk. TC corresponded with the RAC, requesting a review of the wording of current rules and the current understanding to the requirements for reporting delays. TC's interpretation of the rules demands immediate notification of any train delay.

However, TSB was not aware of any safety action taken in the railway industry as a result of the expression of TC's position, and therefore the response to R00-03 was assessed as having **Satisfactory Intent**.

Additional response to R00-03 (June 2003 and December 2003)

TC requested a revision of CROR Rule 85 by the Rules Revision Team of the Railway Association of Canada (RAC). However, the Rules Revision Team was not receptive to changing this rule without further discussions. The RAC maintained that Rule 85 was not a rule that provided for the spacing or closing up of trains. However, the team was looking at writing a new book of rules and would consider changing the wording of Rule 85. In addition, it was noted that as this rule is an administration rule rather than an operational rule, it may be removed and included in an administration section of CROR. TC considered this recommendation open and kept TSB informed on further developments.

In December 2003, TC provided a further update indicating that several discussions had taken place between TC and the Railway Association of Canada (RAC) to review the wording of CROR Rule 85.

TC in conjunction with the RAC, assessed the suitability of CROR Rule 85 and other railway instructions concerning the immediate reporting of operation delays to all concerned when there is a safety risk. It was determined that CROR Rule 85 is not to be used to report delays in the spacing of trains, but rather it is to be used to advise the Rail Traffic Controller (RTC) that train speed cannot be maintained and that the train will be delayed.

TC also noted that this incident relates to a restricting signal as per Rule 426 of CROR which is a Centralized Traffic Control (CTC) signal indicating that a train can proceed at restricted speed. RESTRICTED SPEED is defined in CROR as a speed that will permit stopping within one-half the range of vision of equipment. This definition also requires that employees must be prepared to stop short of a switch not properly lined and in no case exceed SLOW SPEED. NOTE: When moving at restricted speed, be on the lookout for broken rails. Also, SLOW SPEED is defined in CROR as a SPEED not exceeding fifteen miles per hour.

The TSB investigation report indicates that the crew was not complying totally with Rule 426 of CROR since it collided with the rear of Train 771. (i.e., it was not operating at a speed that would permit stopping within one-half the range of vision of equipment). TC notified the RAC concerning this update in order that RAC could further advise their membership of this accident and bring to their attention the importance of complying with railway operating rules. TC considered this recommendation closed.

Board reassessment of the response to R00-03 (February 2004)

TC indicated that they had corresponded with the RAC, requesting a review of the wording of current understanding of the requirements for reporting delays. TC advised the RAC that their interpretation of the rules demanded immediate notification of any train delay. However, after meeting with industry it appears that TC was dissuaded. While industry rule makers concluded that an amendment to the existing rule was not practicable, no other solutions were proposed by TC to resolve this deficiency.

In consideration that this deficiency remained outstanding and that TC considered the matter closed, the response to Recommendation R00-03 was reassessed as **Unsatisfactory**.

Additional response to R00-03 (July 2006)

TC indicated that this recommendation had been changed to "open". However, TC did not have any further updates at this time.

Board reassessment of the response to R00-03 23 (August 2006)

As no updates were provided, TSB's assessment of the response to Recommendation R00-03 remains as **Unsatisfactory**.

Additional response to R00-03 (January 2010)

There is a disagreement between the RAC and TC on the interpretation of CROR Rules 84 and 85. TC will be meeting with the RAC in the near future to discuss issues related to CROR Rules 84 and 85. Discussion points will include the need to broadcast train delays, locations, conditions, etc., to help address the issues of crew fatigue and situational awareness.

Board reassessment of the response to R00-03 (16 September 2010)

TC has indicated acceptance of the deficiency and that a meeting will be scheduled with the RAC to discuss these issues. However, as a secondary method of collision avoidance, (e.g. administrative such as radio notification) has yet to be considered, the Board reassesses the response to Recommendation R00-03 to remain as having **Satisfactory Intent**. The Board remains concerned about the time taken to debate the existing rules rather than addressing the safety deficiency.

Additional response to R00-03 (January 2012)

TC contends that there may be times when unconfirmed information provided by train crews pertaining to train locations may or may not be beneficial. However, this occurrence substantiates TC and the railway's position because when the crew heard the scanner's message they misinterpreted the unconfirmed information to believe that Train 771 had left that location and therefore disregarded the requirements of travelling at restricted speed. TC also believes that CTC rules, when properly complied with, are safer than OCS types of control, as it removes part of the human element, thus reducing the chance of mistakes caused by human error. The use of unconfirmed information to control train movements negates the effectiveness of the signal system and is a violation of Rule 126 of the CROR that is in specifically in place to prevent these situations from happening. The CTC system drastically reduces the number of human interactions that reduces the number of errors and, if it were increased, would only contribute to additional system errors that everyone is striving to reduce.

TC has reviewed its response to the TSB recommendation and all subsequent updates provided to the TSB since 2000, and assessed with the railways suitability of current Canadian Rail Operating Rules (CROR) and railway instructions concerning the immediate reporting of operating delays to all concerned when there is a safety risk and any possible safety deficiencies. TC has come to a determination that current CROR are adequate, that no safety deficiency exist and that any suggested modification to current operating rules or any other methods of collision avoidance, such as radio notification, may compromise the safety of the existing railway operating system rather than improvement. Human factors issues and positive train control are being looked at by industry."

Board reassessment of the response to R00-03 (February 2012)

TC has reviewed the deficiency with the RAC, but has decided not to seek any changes to rules or instructions. TC has made an assessment of the suitability of current Canadian Rail Operating Rules and railway instructions concerning the immediate reporting of operation delays to all concerned when there is a safety risk and determined that the current rules are adequate. In consideration that TC has performed the assessment as recommended, but the safety deficiency remains unaddressed, the Board reassesses the response to Recommendation R00-03 as being **Unsatisfactory**.

Additional response to R00-03 (January 2013)

Transport Canada performed an assessment of the current Canadian Rail Operating Rules (CROR) and railway instructions concerning the immediate reporting of operating delays. TC believes that the current CROR (version 2008) adequately addresses the reporting of train delays.

TC notes that the TSB final report states: "The assumption that train 771 was further ahead was based on the interpretation of an automated voice transmission provided by a Wayside Inspection System (WIS). Contributing to this accident were a lack of accurate information regarding the location of train 771, an inadequate dissemination of information regarding the nature of WIS broadcasts to operating crews, and poor visual conspicuity of the rear of train 771."

TC believes that there may be times when unconfirmed information provided by train crews pertaining to train locations may be problematic because the information may be inaccurate.

Board reassessment of the response to R00-03 (07 March 2013)

TC and industry have made an assessment of the current Canadian Rail Operating Rules and railway instructions as stated in the literal wording of the recommendation. TC believes that the current CROR adequately addresses the reporting of train delays. In addition, TC states that there may be times when unconfirmed information provided by train crews pertaining to train locations may be problematic.

Therefore the Board reassesses the response to Recommendation R00-03 to be **Fully Satisfactory**.

Next TSB action

Despite this assessment, the safety deficiency, as TSB has defined it, remains a concern for the TSB. The TSB will continue to monitor this safety deficiency in future investigations.

This recommendation is assigned **Inactive** status.