

Transportation Safety Board
of Canada



Bureau de la sécurité des transports
du Canada

Place du Centre
200 Promenade du Portage
4th Floor
Gatineau, QC
K1A 1K8

617-01/17
R16W0259

12 January 2017

Ms. Brigitte Diogo (ASR)
Director General, Rail Safety
Transport Canada
14th Floor, Enterprise Building
427 Laurier Avenue
Ottawa, Ontario
K1A 0N5

Dear Ms. Diogo:

SUBJECT: RAIL SAFETY ADVISORY LETTER - 01/17

Training of Yard Traffic Controllers at CN Winnipeg Terminal

On 13 December 2016, at 0457 Central Standard Time, a yard assignment (the transfer), operating eastward in belt pack mode with locomotive 7254, exceeded the limits of its operating authority. The transfer was operating on the south main track of CN's Rivers Subdivision between Signal 38A (Mile 3.8) at Waverly Street and Signal 26A (Mile 2.6) at Portage Junction, in Winnipeg, Manitoba. With a crew of 2 management employees, the transfer was handling 2 loaded cars and 23 empty cars. It weighed about 1000 tons and was approximately 1330 feet in length. At the time of the occurrence, there were no opposing movements in the block (TSB Occurrence No. R16W0259).

The sequence of events is summarized as follows:

- The transfer had stopped at the Stop signal at the controlled location on the south main track at Signal 38A.
- One of the dual control switches for the selected route was not operating properly, which prevented the signal system from providing a permissive indication over the controlled location at Waverly Street.
- The Yard Traffic Controller (YTC) issued a written Pass Stop Authority to the transfer which authorized the transfer to pass the Stop signal and to crossover onto the north main track. The Pass Stop Authority required the transfer crew to operate the dual control switches manually.
- The transfer was operated past Signal 38A and was stopped prior to the south crossover switch. The crew then attempted, unsuccessfully, to line the south crossover switch for the north main track.

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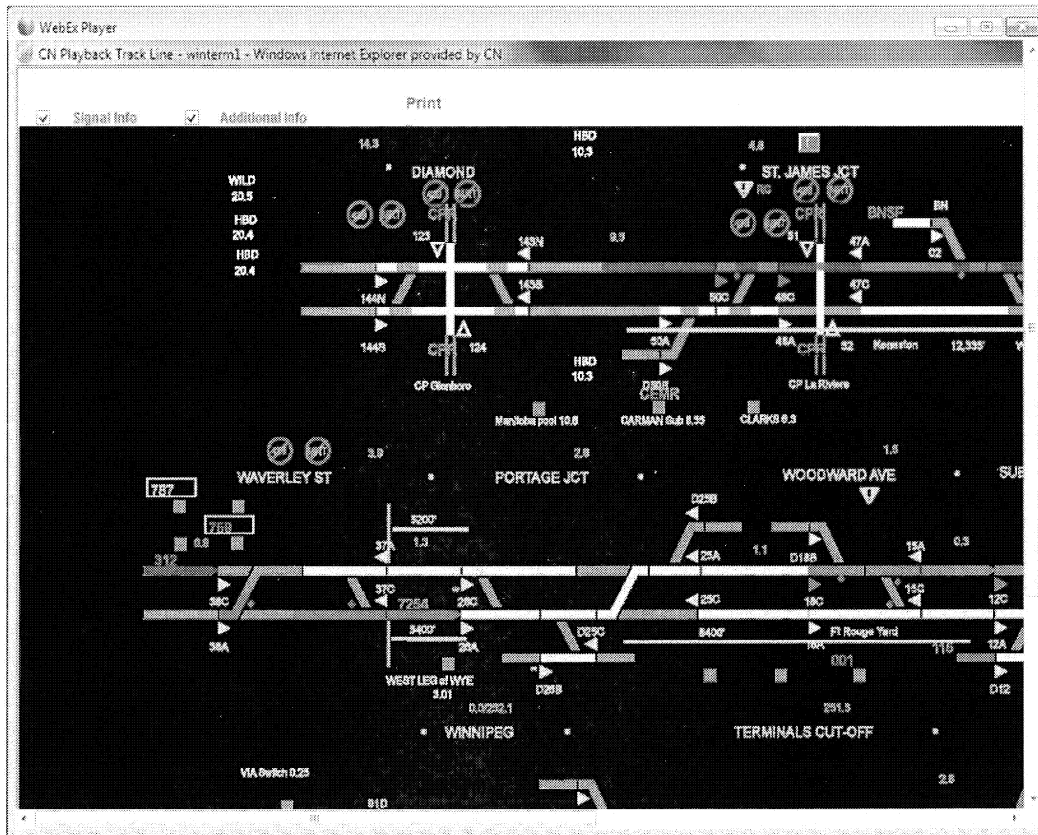
- The transfer crew advised the YTC of the problem at the south crossover switch. The YTC instructed the transfer crew to line and lock the south crossover switch for the south main track and also indicated that the Pass Stop Authority would be superseded¹ to provide authority for the south main track.
- Without further communication with the transfer crew, the YTC fulfilled² the new Pass Stop Authority within the computer system, which removed the blocking that had been previously applied to protect the transfer.
- The transfer crew lined and locked the south crossover switch for the south main track and then moved eastward on the south main track, without first having received authorization from the YTC.
- Observing on the track display (Figure 1) that the south main track was occupied east of the south crossover switch, the YTC contacted the transfer crew and requested them to advise when they were ready to copy a new Pass Stop Authority.
- The transfer crew responded that they were proceeding eastward on the south main track towards Portage Junction.
- The YTC's expectation was that the transfer crew would call back when they lined the south crossover switch for the south main track. The YTC would then issue the new Pass Stop Authority, by superseding the initial one.
- As the transfer had already proceeded through the controlled location on the south track, the YTC advised the transfer crew to continue eastward on signal indication.
- Without issuing a new authority for the transfer, the YTC requested a permissive signal indication at Signal 26A. The transfer continued eastward to Symington Yard.

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¹ A new authority given, encompassing the initial authority and including the cancellation of the initial authority.

² Fullfilling an authority refers to the removal of an authority once it has been properly executed, which had not occurred in this instance.

Figure 1. 7254 (the transfer) on the south main track east of Waverley Street



In May 2015, following a report to TSB's confidential reporting system, Securitas, a Rail Safety Information (RSI) Letter relating to yardmasters / switchtenders at CN's Winnipeg Terminal was issued to Transport Canada (TC). This letter (RSI 04/15) stated (in part):

The reporter is concerned that the training for the Yardmaster / Switch-Tender for this location will not be as thorough as the training that is typically provided to RTCs. In addition, the reporter is concerned that a comprehensive risk assessment may not have been conducted to identify hazards and to eliminate potential risks prior to the implementation of this operational change."

On 04 June 2015, CN responded to the RSI letter stating (in part):

- Comprehensive training is being provided to the switchtenders; and
- An initial risk assessment was conducted and continues to be refined as additional items come up.

On 03 July 2015, TC responded indicating (in part):

TC has contacted CN to remind the railway that a risk assessment must be completed as per *Railway Safety Management System Regulation, 2015*, under:

Section 15 - Risk Assessment

- (1) A railway company must conduct a risk assessment in the following circumstances:

(c) when a proposed change to its railway operations, including a change set out below, may affect the safety of the public or personnel or the protection of property or the environment:

(v) a change affecting personnel, including an increase or decrease in the number of employees or a change in their responsibilities or duties.

Section 38 - Notification and filing

A railway company that proposes to make a change referred to in paragraph 15(1)(b) or (c) must, before making the change, notify the Minister of the change and must, at the request of the Minister, file with the Minister the documentation relating to the risk assessment that it conducted with respect to the change.

TC also indicated that it would continue to monitor CN's operational changes and, if necessary, take appropriate safety action.

In October 2015, CN changed how train movements and track work activities were supervised in its Winnipeg Terminal between Waverley and Dugald. A YTC would now supervise these activities at this location, instead of the Rail Traffic Controller (RTC). During initial implementation, a qualified RTC manager was available on site to answer any questions and to provide guidance to the YTCs. Upon full implementation, this position was no longer present on site. Instead, YTCs were to contact the Chief RTC or another qualified RTC if guidance or clarification was required. However, these employees may not always have been immediately accessible.

The YTC in this occurrence had qualified for the position in January 2016. Following receipt of this qualification, the YTC returned to work primarily as a conductor, but also working a few shifts each month as a YTC until September 2016. Between September and early December, the YTC worked exclusively as a conductor. On the day of the occurrence (December 13), the YTC was working in the position for the 3rd time that month. Prior to the December return, the YTC had not been not provided (nor requested) any refresher training for the position. Both the YTC and the transfer crew (management employees) did not have a clear understanding of the procedural and operating requirements for the circumstances encountered that day.


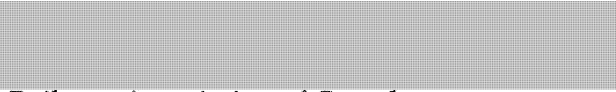
Given the risks associated with operating equipment beyond the limits of authority, TC may wish to review the training program at Winnipeg Terminal for YTCs to ensure that these employees have sufficient knowledge and understanding to safely perform their work.

Yours sincerely,



Kirby Jang
Director
Investigation Operations, Rail/Pipeline

cc:


Canadian National Railway
Railway Association of Canada

617-01/17

BACKGROUND INFORMATION

Occurrence No.: R16W0259

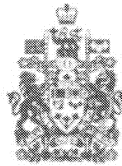
Contacts: Dan Holbrook
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Gatineau, Quebec
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624-04/15
SR15-35

29 May 2015

Ms. Brigitte Diogo (ASR)
Director General, Rail Safety
Transport Canada
14th Floor, Enterprise Building
427 Laurier Avenue
Ottawa, Ontario
K1A 0N5

Dear Ms. Diogo:

SUBJECT: RAIL SAFETY INFORMATION LETTER - 04/15
Method of Control for Main Track at CN's Winnipeg Terminal

The TSB Confidential Transportation Reporting Program (Securitas) received a report alleging that the method of control on certain portions of the main track within CN's Winnipeg Terminal will be changed from Centralized Traffic Control (CTC) to Yard Traffic Control Advanced (YTCA). The reporter indicated that this operational change will occur within the calendar year.

In CTC, train movements and track work activities are supervised by a Rail Traffic Controller as authorized by the Transport Canada (TC)-approved *Canadian Rail Operating Rules* (CROR). However, in YTCA, train movements and track work activities are supervised by a Yardmaster or a Switch-Tender. The YTCA method of control authorizes train movements at Reduced Speed. YTCA also permits the Yardmaster to issue certain authorities in a verbal manner, such as "pass stop" and "track occupancy permits".

The reporter is concerned that with the complexity introduced by having two different methods of control being applied on the main track within CN's Winnipeg Terminal, confusion will occur which will compromise safety. The reporter is also concerned that the training for the Yardmaster /Switch-Tender for this location will not be as thorough as the training that is typically provided to RTCs. In addition, the reporter is concerned that a comprehensive risk assessment may not have been conducted to identify hazards and to eliminate potential risks prior to the implementation of this operational change.

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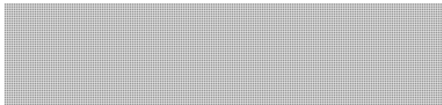
This information has been provided to you for whatever follow-up action you deem appropriate.

Yours sincerely,



Kirby Jang
Director
Investigations Operations Rail/Pipeline

Cc:



Canadian National Railway



Railway Association of Canada

624-04/15

BACKGROUND INFORMATION

Occurrence No.: SR15-35 Securitas

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617-02/17
R16W0259

13 January 2016

[REDACTED]
Canadian National Railway
MacMillan Yard Administration Building
1 Administration Road
Concord, Ontario
L4K 1B9

Dear [REDACTED]:

SUBJECT: RAIL SAFETY ADVISORY LETTER - 02/17
Disabled CROR Rule 439 alarms on the YTC panel for Waverley and Dugald

In October 2015, CN changed how train movements and track work activities were supervised in its Winnipeg Terminal between Waverley and Dugald. A Yard Traffic Controller (YTC) would now supervise these activities at this location, instead of the Rail Traffic Controller (RTC). The method of train control throughout this location remained as Centralized Traffic Control (CTC). Under this arrangement, an RTC would continue to control the territory west of Waverley (i.e., from the Edmonton RTC office) and east of Dugald (i.e., from the Toronto RTC office).

To implement this change, computer program revisions were made to the RTC control system to permit the sharing and transfer of control at Waverly and at Dugald between the RTCs and the YTC. However, when these revisions were implemented, an inadvertent programming anomaly occurred which resulted in the activation of the CROR Rule 439¹ alarm in the YTC office each time a movement was operated through Waverly and through Dugald. Even when a permissive signal was present, the Rule 439 alarm would activate at these locations.

Shortly thereafter, to address the nuisance activation of the Rule 439 alarms, they were disabled in the YTC office for Waverley and Dugald. These alarms remained active only in the RTC offices. As a result, the alarms on the YTC panel at these interface locations are not considered to be as reliable as the alarms on the RTC panel.

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¹ A Rule 439 alarm indicates that a movement has passed a Stop signal without authority.

If a Rule 439 alarm occurs at the RTC office for Waverley or Dugald, the RTC would advise the movement to stop, and then advise the YTC of the situation. The YTC would then take any action (as necessary) to reduce the consequences of the pass stop error (e.g., advise opposing movements of the situation).

In these situations, if the RTC is unable to immediately communicate with the movement or with the YTC, an unprotected high risk situation can occur which can lead to train collisions and/or derailments. By leaving the Rule 439 alarm disabled indefinitely on the YTC panel for Waverly and Dugald, an important safety defense for train operations at this location is not immediately available.

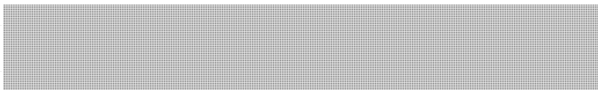
Given the potential consequences of a pass stop error, CN may wish to ensure that the anomaly affecting the Rule 439 alarm on the YTC panel for Waverley and Dugald is corrected and that these alarms are placed back into service as soon as practicable.

Yours sincerely,



Kirby Jang
Director
Investigation Operations, Rail/Pipeline

cc: Brigitte Diogo (ASR)
Director General, Rail Safety
Transport Canada



Railway Association of Canada

617-02/17

BACKGROUND INFORMATION

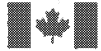
Occurrence No.: R16W0259

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Your file Votre référence

MAY 29 2017

Our file Notre référence
TSB2017T160280
RDIMS 12928994
3532-RSA 01/17 (R16W0259)

Mr. Kirby Jang
Director, Rail/Pipeline Investigations Branch
Transportation Safety Board of Canada
Place du Centre, 4th Floor
200 Promenade du Portage
Gatineau, Quebec
K1A 1K8

Dear Mr. Jang:

SUBJECT: Rail Safety Advisory Letter – 01/17
Training of Yard Traffic Controllers at CN Winnipeg Terminal

This is in reply to the above-mentioned Rail Safety Advisory Letter dated January 12, 2017, in which the Transportation Safety Board (TSB) raised concerns regarding the training program for Yard Traffic Controllers (YTC) at the Canadian National Railway (CN) Winnipeg Terminal.

The TSB may wish to know that Transport Canada (TC) Officials met with CN in December 2015 to discuss the use of YTCs at Symington Yard, as well as the elements of CN's risk assessment on their use. A follow-up meeting was held in February 2016, where TC received additional information such as YTC efficiency test records and an updated copy of the Greater Winnipeg Terminal Operating Manual.

In addition, a TC Railway Safety Inspector was on site at the Winnipeg Terminal to attend part of the training course for YTCs and did not note any concerns with the training program.

Should TSB officials have any questions regarding this response, they may contact Vidalia Velho, Senior Advisor – TSB/Rail Issues at 613 993-7017 or by e-mail at vidalia.velho@tc.gc.ca.

Sincerely,

Brigitte Diogo
Director General
Rail Safety

c.c.:

[Redacted] - CN

[Redacted] Railway Association of Canada