



## TSB Recommendation R18-02

### Training and qualification standards for railway employees in safety-critical positions

The Transportation Safety Board of Canada recommends that the Department of Transport update the *Railway Employee Qualification Standards Regulations* to address the existing gaps for railway employees in safety-critical positions related to training, qualification and re-qualification standards, and regulatory oversight.

Rail transportation safety investigation report	<a href="#">R16T0111</a>
Date the recommendation was issued	27 June 2018
Date of the latest response	February 2026
Date of the latest assessment	March 2026
<a href="#">Rating</a> of the latest response	Satisfactory in Part
<a href="#">File status</a>	Active

#### Summary of the occurrence

On 17 June 2016, at about 2335 Eastern Daylight Time, the Canadian National Railway Company (CN) remote control locomotive system 2100 west industrial yard assignment was performing switching operations at the south end of CN's MacMillan Yard, which is in the Concord industrial district of Vaughan, Ontario. The assignment was pulling 72 loaded cars and 2 empty cars southward from the yard onto the York 3 main track in order to clear the switch at the south end of the Halton outbound track to gain access to the west industrial lead track (W100) switch. The assignment helper attempted to stop the assignment to prepare to reverse into track W100, in order to continue switching for customers. However, the assignment continued to move. It rolled uncontrolled for about 3 miles and reached speeds of up to 30 mph before stopping on its own at about Mile 21.1 of the York Subdivision. There were no injuries. There was no release of dangerous goods and no derailment.

The Board concluded its investigation and released report R16T0111 on 27 June 2018.

## Rationale for the recommendation

The *Railway Employee Qualification Standards Regulations* came into force over 31 years ago, in 1987. Since that time, there have been significant operational changes in the rail industry, including the following:

- The size of crews has been reduced.
- Remote control locomotive system (RCLS) operations have been widely implemented.
- An accelerated training program has been used to qualify unionized crews.
- The periodic use of management crews has become more widely implemented.

Under the current regulations, locomotive engineers (LEs) are required to receive recurrent training in locomotive operation and train handling. Operating a locomotive is a complex task. LEs are trained to recognize the characteristics of the train they are operating, such as length, tonnage, and weight distribution within the train. They must also be familiar with the characteristics of the territory (i.e., undulating terrain, grade, and curvature) in which they are operating. LEs must anticipate the train's response and must adapt its operation to negotiate changes in terrain as well as to comply with signal indications and rail traffic controller (RTC) instructions.

In Canada, conductors normally operate RCLS yard assignments, using a Beltpack, within rail yards. These assignments can enter the main track to take up head room to assist with switching operations. Conductors can also operate transfers on the main track for distances of up to 20 miles at speeds of up to 15 mph, with no tonnage or train length restrictions. Conductors receive little training in locomotive operation or train handling, and the current regulations do not require such training.

In this occurrence, the RCLS assignment crew members were aware of the assignment's length and weight. However, they did not fully understand the effect of these factors on train handling while descending a 0.70% grade with only locomotive independent brakes available to control the assignment. Consequently, the assignment rolled uncontrolled on the main track for about 3 miles and reached speeds of up to 30 mph before stopping on its own at about Mile 21.1 of the York Subdivision.

Since 2002, the TSB has conducted 6 investigations (including this occurrence) that were directly related to deficiencies in operating crew training and/or related gaps in the regulations.<sup>1</sup>

Although sections 25 to 27 of the *Railway Safety Management System Regulations, 2015* cover some aspects of crew training, they do not require individual plans and methods for each position and do not prescribe the training requirements to qualify for each position. Consequently, the approach varies among railways. For example, Canadian Pacific Railway

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<sup>1</sup> TSB railway investigation reports R16W0074, R15V0046, R13W0260, R04W0035, and R02W0060.

Company (CP) does not include RCLS operators in its plan, whereas CN does. Significant gaps remain in the following areas:

1. Qualification standards

- There is no independent regulatory oversight for the qualification of railway employees in safety-critical positions in Canada.
- There is no practical training required for requalification of LEs, transfer hostlers, or conductors.
- The Canadian regulations contain qualification standards for on-job training instructors for LEs and transfer hostlers, but no requirement for on-job training instructors for conductors or foremen.
- There is no occupational category and no corresponding training or requalification requirements for RTCs.
- There is no operational category for RCLS operators, nor do the regulations require employees in any operational category to receive training specific to RCLS or to requalify in RCLS operations.
- There are no qualification standards for contract instructors (trainers) who are not company employees.

2. Graduated qualification

- The regulations contain no graduated qualification system for occupational categories, except for unionized LEs, company LE on-job training instructors, and transfer hostler candidates.

3. Conductor training

- Conductors can operate RCLS assignments as transfers on the main track for distances of up to 20 miles at speeds of up to 15 mph, with no tonnage or train length restrictions and no training in locomotive operation or train handling.

4. Management crew training and experience

- Management crews do not have to meet the same requirements for duration of training, number of trips, and experience as unionized staff.
- Management crews may operate trains over any subdivision without having adequate familiarization training.

5. Regulatory oversight

- The regulations contain no guidance outlining requirements for course training material, test content, or test delivery for railway employees in safety-critical positions.
- Although Transport Canada (TC) is provided with railway training programs, it does not assess the adequacy of the training and provides no further oversight with regard to the training of railway employees in safety-critical positions.

- There are no regulatory requirements for mandatory familiarization or refresher training for any of the operational categories when railway employees in safety-critical positions return to work after a layoff.

TC has recognized the need to update the regulations on several occasions:

- In 2003, TC indicated that it was planning to review the regulations in fall 2003.
- In 2005, TC acknowledged that the regulations were outdated and should be revised; it considered creating a working group to revise the regulations.
- In 2009, TC approved the *Rules Respecting Minimum Qualification Standards for Railway Employees*, which were to come into force once the regulations were repealed. However, to date, the Rules are not in place, as the regulations have not been repealed.

The 2017–2018 TC Departmental Plan highlighted that TC planned to strengthen the regulatory regime by updating the *Railway Employee Qualification Standards Regulations*, but there has been little progress to date.

Consequently, the regulations have not kept pace with the significant changes in railway operations over the years. The *Rail Safety Management System Regulations, 2015*, requiring railways to have processes for managing knowledge, cover some of the training elements. However, gaps in training remain. If the gaps in the current *Railway Employee Qualification Standards Regulations* are not addressed, railway employees in safety-critical positions may not be sufficiently trained or experienced to perform their duties safely. Additionally, TC will not be able to conduct effective regulatory oversight and enforcement of training programs. Therefore, the Board recommended that

the Department of Transport update the *Railway Employee Qualification Standards Regulations* to address the existing gaps for railway employees in safety-critical positions related to training, qualification and re-qualification standards, and regulatory oversight.

#### **TSB Recommendation R18-02**

### **Previous responses and assessments**

#### **September 2018: response from Transport Canada**

Transport Canada agrees with rail safety recommendation (R18-02). Railway safety is a key priority for the Department. To that end, the Department has been doing work in the area of training and qualifications because it recognizes that rail employees must have the necessary qualifications to perform the duties of their safety-critical positions, that they demonstrate those qualifications prior to undertaking those duties, and that those qualifications are monitored on an ongoing basis. To address the identified gaps, the Department is undertaking work in multiple areas, including considering amendments to the regulatory framework as well as ensuring effective oversight of training and qualification requirements.

In the interim and to further reduce the risk, the Department is planning to publish a guideline on the use of remote control locomotive systems in the rail industry in December 2018. This guideline will be informed by a comprehensive study of remote control locomotive systems which the department conducted. This study looked at areas such as qualification/training/experience, mitigating measures, mainline operation, train speed, and crew size. The study was completed in spring 2018, and included outcomes from rail industry site visits. The results were presented to members of the Advisory Council on Railway Safety. The study recommended the introduction of training and qualification standards for Remote Control Operators.

With regards to regulatory development work, Transport Canada is planning consultations with industry stakeholders throughout 2018/2019 to ensure the employee training and qualification policy framework is up-to-date, effective, and reflective of the needs of an evolving and dynamic railway industry. This is especially crucial given the wide diversity of railway companies and the complexities involved in designing a training and qualification regime that can be effectively implemented and overseen. The Department intends to publish the regulatory proposal in *Canada Gazette*, Part I, during the first quarter of 2020, followed by a 30-day final comment period from stakeholders.

In the interim, Transport Canada will continue to oversee railway companies' compliance with existing training and qualification requirements through a combination of inspection activities and Safety Management System Audits. Of note, the *Railway Safety Management System Regulations, 2015*, includes requirements for companies to have processes for managing knowledge. It also requires that companies ensure that the employees conducting duties essential to safe railway operations have the necessary skills and qualifications. The knowledge management process was one of the components audited in 2017-18 for Canadian Pacific Railway, Canadian National Railway, and VIA Rail Canada. In response to audit findings, each railway submitted a corrective action plan.

Transport Canada shares the Transportation Safety Board's commitment to advancing the safety of Canada's transportation system and is committed to working with partners to further enhance the safety of Canada's railway system through improvements to the existing training and qualifications regime.

#### **November 2018: TSB assessment of the response (Satisfactory Intent)**

TC agrees with the recommendation. TC recognizes that rail employees must have the necessary qualifications to perform the duties of their safety-critical positions, that they demonstrate those qualifications prior to undertaking those duties, and that those qualifications are monitored on an ongoing basis.

To address the gaps related to training, qualification and re-qualification standards for railway employees in safety-critical positions, TC is undertaking work in multiple areas, including possible amendments to the regulatory framework. TC will conduct consultations with industry stakeholders throughout 2018-19 to ensure that the employee training and qualification policy

framework is up to date, effective, and reflective of the needs of the railway industry. TC plans to publish the regulatory proposal in the *Canada Gazette*, Part I, during the first quarter of 2020.

In the interim, TC plans to publish a guideline on the use of RCLS in December 2018. This guideline will consider the results of its 2018 study on RCLS that recommended the introduction of training and qualification standards for remote control operators.

TC will ensure effective oversight of training and qualification requirements through a combination of inspection activities and safety management system (SMS) audits. In 2017–18, TC audited the knowledge management process for CP, CN, and VIA Rail Canada Inc. (VIA). In response to the audit findings, each railway submitted a corrective action plan.

The Board is encouraged that TC recognizes that there are gaps in the training and qualification standards for employees in safety-critical positions and that it is actively working in a number of areas to address the gaps, including possible amendments to the regulatory framework. The Board considers the response to the recommendation to show **Satisfactory Intent**.

#### **February 2019: response from the Railway Association of Canada**

The new SMS 2015 Regulations (Section 25 to 27) includes requirements for Managing Knowledge for employees whose duties are essential to safe railway operations; as well as others who are authorized by the railway company to access the railway and whose activities may affect the safety of railway operations. This includes knowledge of “any of the railway company’s procedures – including any procedure referred to in this Part – standards, instructions, bulletins or other internal documents that may affect railway safety and that the employee needs to know to carry out his or her duties safely.”

The regulation further requires railways to have a plan for ensuring that an employee has the skills, qualifications and knowledge; a method for verifying that an employee has the required skills, qualifications and the knowledge; a method for supervising an employee who performs any of the duties and a method for verifying that a person has the knowledge.

It is not necessary for the *Railway Employee Qualification Standards Regulations* to be updated or for regulations to prescribe the specific qualifications that TSB is describing as the performance based / continuous improvement nature of SMS ensures that companies are reviewing, improving and implementing programs that ensure employees have the necessary skills, qualification and knowledge. If the TSB or TC identify a specific topic that they believe needs to be addressed, it should be raised with the relevant railway company, so they can evaluate it and address it through SMS, if needed.

#### **February 2019: response from Transport Canada**

To address this issue over the long-term, the Department is currently developing policy options to update the regulatory framework in order to address the gaps identified in this area while at the same time keeping pace with the evolving and dynamic railway industry. This is especially crucial given the wide diversity of railway companies and the complexities involved in

designing a training and qualification regime that can be effectively implemented and overseen. Transport Canada consulted with CN and CP representatives in Fall 2018 to gain a better understanding of their training and qualifications regime. The Department will launch pre-consultations with stakeholders on a training and qualifications policy proposal in Spring/Summer 2019, with the intention of pre-publishing a regulatory proposal in *Canada Gazette*, Part I, in 2020.

In the interim and to further reduce the risk, the Department has developed a guideline on the use of remote control locomotive (RCL) systems in the rail industry. The intent of the guideline is to promote industry best practices and to provide federally-regulated railways, and those providing services to railways, with guidance in regard to the continued safe use of RCL. The guideline is informed by work conducted by Transport Canada from 2016-2018, which was presented to members of the Advisory Council on Railway Safety. TC examined areas such as qualification/training/experience, mitigating measures to reduce the risk of accidents or incidents, mainline operation, train speed and crew size. TC also conducted industry site visits (where operating procedures and training programs were observed), and reviewed Transportation Safety Board (TSB) occurrence data and United States regulatory requirements and guidance.

It is not the intent of the guideline to compare the safety of RCL and conventional switching approaches. Indeed, many of the recommendations found within the guideline would be equally applicable to either method of working. Building upon current industry best practices, the guideline recommends that railways take actions including establishing common standards to be implemented by all railway in two key areas: training and qualification of employees and RCL operation.

The guideline was circulated, in draft form, to members of the Advisory Council on Railway Safety in January 2019. A final version of the guideline is expected to be posted on Transport Canada's web site by March 31, 2019.

In the interim, Transport Canada will continue to oversee railway companies' compliance with existing training and qualification requirements through a combination of inspection activities and Safety Management System Audits. Of note, the *Railway Safety Management System Regulations, 2015*, includes requirements for companies to have processes for managing knowledge. It also requires that companies ensure that the employees conducting duties essential to safe railway operations have the necessary skills and qualifications. The knowledge management process was one of the components audited in 2017-18 for Canadian Pacific Railway, Canadian National Railway, and VIA Rail Canada. In response to audit findings, each railway submitted a corrective action plan.

Transport Canada shares the Transportation Safety Board's commitment to advancing the safety of Canada's transportation system and is committed to working with partners to further enhance the safety of Canada's railway system through improvements to the existing training and qualifications regime.

### March 2019: TSB assessment of the response (Satisfactory Intent)

TC is developing policy options to update the regulatory framework to address the gaps identified in training and qualifications standards. In fall 2018, TC consulted with CP and CN representatives to better understand their training and qualifications regime. In spring/summer 2019, TC will conduct pre-consultations with stakeholders on a training and qualifications policy proposal. In 2020, TC plans to pre-publish the regulatory proposal in the *Canada Gazette*, Part I. The TSB supports the use of regulations to establish specific training and qualification standards for railway employees in safety-critical positions to ensure consistent application and use across the railway industry.

To further reduce risk, TC developed a draft guideline on the use of RCL systems in the rail industry. Based on the work conducted by TC between 2016 and 2018, this guideline promotes industry best practices and provides guidance with respect to the safe use of RCL. The guideline recommends that railways take actions including establishing and implementing common standards in the training and qualification of employees and in RCL operation. In January 2019, the draft guideline was circulated to members of the Advisory Council on Railway Safety. A final version of the guideline is expected to be published in April 2019.

In the interim, TC continued its oversight of railway companies relating to compliance with existing training and qualification requirements through inspection activities and SMS audits. In 2017-18, the knowledge management process was one of the SMS components audited for CP, CN and VIA. In response to the audit findings, each railway submitted a corrective action plan.

The Board is encouraged that TC is actively working in a number of areas to address the gaps in the training and qualifications regime, including the initial work to develop the regulatory proposal. The Board considers the response to Recommendation R18-02 to show **Satisfactory Intent**.

### December 2019: response from the Railway Association of Canada

The RAC reiterates the response provided previously. The new SMS 2015 Regulations (Section 25 to 27) includes requirements for Managing Knowledge for employees whose duties are essential to safe railway operations; as well as others who are authorized by the railway company to access the railway and whose activities may affect the safety of railway operations. This includes knowledge of “*any of the railway company’s procedures – including any procedure referred to in this Part – standards, instructions, bulletins or other internal documents that may affect railway safety and that the employee needs to know to carry out his or her duties safely.*”

The regulation further requires railways to have a plan for ensuring that an employee has the skills, qualifications and knowledge; a method for verifying that an employee has the required skills, qualifications and the knowledge; a method for supervising an employee who performs any of the duties and a method for verifying that a person has the knowledge.

It is not necessary for the *Railway Employee Qualification Standards Regulations* to be updated or for regulations to prescribe the specific qualifications that TSB is describing as the

performance based/continuous improvement nature of SMS ensures that companies are reviewing, improving and implementing programs that ensure employees have the necessary skills, qualification and knowledge. If the TSB or TC identify a specific topic that they believe needs to be addressed, it should be raised with the relevant railway company, so they can evaluate it and address it through SMS, if needed.

### **December 2019: response from Transport Canada**

The Department continues work to improve its regulatory regime for railway employee qualification and training regime. Transport Canada published in 2019 the *Guideline for Remote Control Locomotive Operation*. The guideline, which is available on the department's website (<https://www.tc.gc.ca/eng/railsafety/guideline-78.html>), makes recommendations in the area of training and qualification for employees involved in remote control locomotive (RCL) operations.

More broadly, the Department's objective is to ensure Canada's federally-regulated railway companies have training programs that adequately train their employees for safe railway operations. To this end, the Department consulted with stakeholders, and conducted site visits to observe best practices with respect to training programs. In addition, the Transport Canada reviewed Transportation Safety Board (TSB) data on rail occurrences to better understand the role that the lack of training played in incidents and accidents as well as reviewing the regulatory regimes in the United States, Australia and E.U. on employee training.

During 2020, Transport Canada will begin consultations with stakeholders on policy options for amendments to the *Railway Employee Qualification Standards Regulations*, with draft regulations to follow sometime in 2020–21.

While this work is underway, Transport Canada will continue to oversee railway companies' obligations with respect to training under the *Railway Safety Management System Regulations, 2015*.

### **March 2020: TSB assessment of the response (Satisfactory Intent)**

In 2019, TC continued its work to improve the regulatory regime for railway employee qualifications and training. TC published the *Guideline for Remote Control Locomotive Operation*, which makes recommendations in the area of training and qualification for employees involved in remote control locomotive operations.

Other work in 2019 included consulting with stakeholders, and conducting site visits to observe best practices with respect to training programs. In addition, TC reviewed TSB's rail occurrence data to better understand the role that the lack of training played in these occurrences. The regulatory regimes with respect to employee training in the United States, Australia and the European Union were also reviewed.

In 2020, TC will begin consultations with stakeholders on policy options for amendments to the *Railway Employee Qualification Standards Regulations*. It is expected that the preparation of

draft amendments to the regulations will continue into 2020–21. While this work is underway, TC will continue to oversee railway companies' obligations with respect to training under the *Railway Safety Management System Regulations, 2015*.

The Board considers the response to Recommendation R18-02 to show **Satisfactory Intent**.

#### **January 2021: response from the Railway Association of Canada**

The Railway Association of Canada (RAC) reiterates that the SMS 2015 Regulations (Section 25 to 27) include requirements for Managing Knowledge for employees whose duties are essential to safe railway operations; as well as others who are authorized by the railway company to access the railway and whose activities may affect the safety of railway operations. This includes knowledge of “*any of the railway company's procedures – including any procedure referred to in this Part – standards, instructions, bulletins or other internal documents that may affect railway safety and that the employee needs to know to carry out his or her duties safely.*”

It is our opinion that it is not necessary for the *Railway Employee Qualification Standards Regulations* to be updated or for regulations to prescribe the specific qualifications that TSB is describing, as the performance based/continuous improvement nature of SMS ensures that companies are reviewing, improving and implementing programs that ensure employees have the necessary skills, qualification and knowledge.

#### **January 2021: response from Transport Canada**

Transport Canada (TC) continues its work to improve its regulatory regime for railway employee qualification and training regime. The department is in the process of identifying amendments to the *Railway Employee Qualification Standards Regulations* to strengthen oversight requirements and address gaps related to training and experience of employees. Stakeholder consultations on proposed amendments to the Regulations will be launched by March 2021.

TC has also completed its initial round of 126 audits to ensure the safety management systems of railway companies meet the requirements of s. 25 of the *Railway Safety Management System Regulation, 2015*, and ensure there are sufficient processes in place to ensure employees have sufficient knowledge to perform their duties safely.

#### **March 2021: TSB assessment of the response (Satisfactory Intent)**

In 2020, TC continued its work to improve the regulatory regime for railway employee qualifications and training.

TC has completed its initial round of 126 audits of the SMS of all federally regulated railway companies. This included section 25 of the *Railway Safety Management System Regulations, 2015* which is to ensure that there are sufficient processes in place allowing employees to have sufficient knowledge to perform their duties safely.

TC is in the process of identifying amendments to the *Railway Employee Qualification Standards Regulations* that are aimed at strengthening oversight requirements and address gaps related to training and experience of employees. Stakeholder consultations on the proposed amendments to the regulations are planned for March 2021.

The Board looks forward to a briefing from TC on the proposed changes to the *Railway Employee Qualification Standards Regulations* that will address the gaps for railway employees in safety-critical positions related to training, qualification and re-qualification standards, and regulatory oversight.

The Board considers the response to Recommendation R18-02 to show **Satisfactory Intent**.

#### **November 2021: response from the Railway Association of Canada**

The Railway Association of Canada (RAC) reiterates that the SMS 2015 Regulations (Section 25 to 27) include requirements for Managing Knowledge for employees whose duties are essential to safe railway operations; as well as others who are authorized by the railway company to access the railway and whose activities may affect the safety of railway operations. This includes knowledge of “*any of the railway company’s procedures – including any procedure referred to in this Part – standards, instructions, bulletins or other internal documents that may affect railway safety and that the employee needs to know to carry out his or her duties safely.*”

It is our opinion that it is not necessary for the *Railway Employee Qualification Standards Regulations* to be updated or for regulations to prescribe the specific qualifications that TSB is describing, as the performance based/continuous improvement nature of SMS ensures that companies are reviewing, improving and implementing programs that ensure employees have the necessary skills, qualification and knowledge.

However, the RAC and the railway industry are prepared to consult on any proposed amendments to the *Railway Employee Qualification Standards Regulations* if and when engaged by Transport Canada to do so.

#### **December 2021: response from Transport Canada**

Transport Canada is committed to full implementation of this recommendation, and continues to move forward with updating the regulatory regime for railway employee training and qualification. Taking into account recommendations made by the TSB in Recommendation Report 18-02 and an extensive review of observations and findings from TSB investigation reports, the department developed a consultation paper for updating the training and qualification regime under the *Railway Employee Qualification Standards Regulations*. The department launched formal consultations on November 16, 2021, with the discussion paper posted on the department’s website for a 60-day consultation period. During this period, the department will also engage in targeted consultations with stakeholders.

Progress in this area has accounted for landmark reports on rail safety in Canada, such as the February 2021 Auditor General’s follow-up audit on rail safety oversight, as well as from

Transport Canada inspections and audits. Drawing on these findings, the department has prepared proposed regulatory changes aligned with the TSB's recommendations and findings, including with respect to safety-critical positions related to training, qualification and recertification standards, regulatory oversight, crew resource management, and on-the-job training.

To minimize risk associated with training and qualification of railway employees, TC continues to monitor railway employees skills and knowledge through ongoing inspections and audits under the *Railway Safety Management System Regulations, 2015*. In response to the March 2021 Office of the Auditor General audit on rail safety oversight, Transport Canada has taken action to implement the Auditor General's recommendations, including moving forward with assessing effectiveness of companies' safety management systems and making improvements to data management to ensure audit results are included in risk-based planning oversight activities.

In practice, these improvements are being implemented as part of the department's oversight regime for safety management systems. For example, during the 2020-21 fiscal year, 14 targeted safety management system audits were completed, specifically looking at how railway companies are managing the identification of safety concerns, ensuring compliance with the *Rules Respecting Track Safety* and managing knowledge of track employees. In September 2021, Transport Canada launched its initial round of safety management systems effectiveness audits, which help ensure there are effective processes in place to support employees with sufficient knowledge to perform their duties safely.

### **March 2022: TSB assessment of the response (Satisfactory Intent)**

In 2021, TC continued its work to update the regulatory regime for railway employee qualifications and training.

TC continues to monitor the skills and knowledge of railway employees through ongoing inspections and audits under the *Railway Safety Management System Regulations, 2015*. During the 2020-2021 fiscal year, TC performed 14 targeted SMS audits that included managing the knowledge of track employees.

In September 2021, TC launched its initial round of SMS effectiveness audits, which help ensure that effective processes are in place to support employees with sufficient knowledge to perform their duties safely.

On 16 November 2021, TC launched formal consultations by publishing a discussion paper for updating the training and qualification regime under the *Railway Employee Qualification Standards Regulations*. The Board notes that, pending the results of these consultations, publication of the regulatory proposal in the *Canada Gazette*, Part I is planned for spring 2022.

The Board looks forward to a briefing from TC on the proposed changes to the *Railway Employee Qualification Standards Regulations* based on the results of the formal consultations

that will address the gaps for railway employees in safety-critical positions related to training, qualification and re-qualification standards, and regulatory oversight.

The Board considers the response to Recommendation R18-02 to show **Satisfactory Intent**.

### December 2022: response from Transport Canada

Transport Canada (TC) is continuing to advance the modernization of the *Railway Employee Qualification Standards Regulations* (REQSR) to address gaps identified by the Transportation Safety Board through this recommendation.<sup>2</sup>

Industry and other stakeholders responded to TC's request for comments on a REQSR discussion paper, which was posted on the department's website from November 17, 2021 to January 17, 2022. A summary of these comments was published in February, 2022 and is available on TC's "Let's Talk Transportation" website.

In addition to these comments, TC's work continues to be informed by the findings of Transport Canada inspections and audits and by the findings of TSB investigations, such as the TSB investigation report R19W0002, which highlights the benefits that Crew Resource Management (CRM) training could have on Canadian railway employees.

The proposed changes to the REQSR will namely address the following:

- Setting minimum requirements for various types of training (including initial training, Crew Resource Management (CRM), simulator, on-the-job, territory familiarization, continuing, recertification and return-to-duty training), examinations, and evaluations;
- Reviewing the scope of employees to whom the REQSR apply;
- Concerns related to the pairing of railway employees with limited experience; and
- Including requirements for the evaluation of the effectiveness of a company's training program.

In order to mitigate the risks prior to the publication of the revised regulations, TC continues to take meaningful actions such as:

- Monitoring railway employee skills and knowledge through ongoing inspections and audits.
- Developing a best practice document for CRM in the rail industry for publication by May 2023.

These regulatory changes, which take into account technological advancements in the industry and TSB recommendations, will strengthen the current federal railway employee training regime. TC is currently targeting pre-publication in the Canada Gazette Part I in late 2023.

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<sup>2</sup> All responses are those of the stakeholders to the TSB in written communications and are reproduced in full. The TSB corrects typographical errors in the material it reproduces without indication but uses brackets [ ] to show other changes or to show that part of the response was omitted because it was not pertinent.

### January 2023: response from the Railway Association of Canada

As per the update provided November, 2021, the Railway Association of Canada (RAC) reiterates that the SMS 2015 Regulations (Section 25 to 27) include requirements for Managing Knowledge for employees whose duties are essential to safe railway operations; as well as others who are authorized by the railway company to access the railway and whose activities may affect the safety of railway operations. This includes knowledge of “*any of the railway company’s procedures – including any procedure referred to in this Part – standards, instructions, bulletins or other internal documents that may affect railway safety and that the employee needs to know to carry out his or her duties safely.*”

It is our opinion that it is not necessary for the *Railway Employee Qualification Standards Regulations* to be updated or for regulations to prescribe the specific qualifications that TSB is describing, as the performance based/continuous improvement nature of SMS ensures that companies are reviewing, improving and implementing programs that ensure employees have the necessary skills, qualification and knowledge.

In late 2021, Transport Canada published a discussion paper outlining a proposed approach to modernizing the *Railway Employee Qualification Standards Regulations (REQ)*. The RAC submitted comments to the discussion paper.

### March 2023: TSB assessment of the response (Satisfactory Intent)

Transport Canada (TC) is continuing to advance the modernization of the *Railway Employee Qualification Standards Regulations (REQSR)*. It posted on its website (from 17 November 2021 to 17 January 2022) a discussion paper on REQSR and, in February 2022, it published a summary of comments on the discussion paper received from industry and other stakeholders.

TC is targeting pre-publication of the proposed changes to the REQSR in the *Canada Gazette*, Part I in late 2023. To mitigate the risks before the publication of the revised regulations, TC is monitoring railway employee skills and knowledge through ongoing inspections and audits, and it is developing a best practice document for crew resource management in the rail industry.

The Board acknowledges and is encouraged by the progress made by TC towards modernizing the REQSR. However, until the TSB has the opportunity to review the revised REQSR and the timelines for their implementation, the Board considers the response to Recommendation R18-02 to show **Satisfactory Intent**.

### December 2023: response from Transport Canada

Transport Canada (TC) has made considerable progress in advancing proposed regulatory changes to the *Railway Employee Qualification [Standards] Regulations*, engaging with the railway industry and unions to discuss feasibility of the proposed new requirements. TC is currently evaluating feedback from these consultations. This progress signifies a positive stride toward publication in the *Canada Gazette*, Part I in 2024.

The proposed Regulations aim to enhance training and qualification standards significantly, offering a more comprehensive and robust framework. The Regulations would establish minimum requirements designed to accommodate evolving technologies and shifts in responsibilities. Additionally, the proposed Regulations would encompass provisions addressing crew supervision, crew resource management, and oversight of less-experienced employees.

In anticipation of the updated Regulations, TC has taken interim measures by developing and publishing a Crew Resources Management training best practice document on its website. This interim guidance serves as a bridge, ensuring that safety and proficiency are not compromised during the development of regulatory requirements.

In addition, TC consistently monitors railway employee skills and knowledge through both comprehensive and targeted Safety Management System audits, which are linked to the prescribed process for managing knowledge under the *Railway Safety Management System Regulations, 2015*.

#### **January 2024: response from the Railway Association of Canada**

The industry and TC met several times in 2023 to discuss the policy direction for the proposed new *Railway Training and Qualification Regulations (RTQR)*, which include proposed requirements related to CRM and are intended to replace the current *Railway Employee Qualification Standards Regulations*. Industry members provided information to TC in August 2023 to inform the cost/benefit analysis as part of the Regulatory Impact Analysis Statement (RIAS) that TC needs to develop. The RAC also provided written comments to TC in January 2024 expressing concerns with several key proposals, which are not based on data; do not account for practical requirements of railway operation; and would conflict with other regulatory requirements. In some cases, the proposed requirements would not be feasible and are likely to shift or increase safety risk. It is industry's intent to continue to engage with TC.

#### **February 2024: TSB assessment of the response (Satisfactory Intent)**

Transport Canada (TC) has advanced the proposed changes to the *Railway Employee Qualification Standards Regulations (REQSR)*. TC engaged with the railway industry and unions to discuss the feasibility of the proposed new requirements and is currently evaluating the feedback from these consultations.

TC is targeting pre-publication of the proposed changes to the REQSR in the *Canada Gazette*, Part I in 2024. TC indicated that the proposed REQSR will enhance training and qualification standards. Additionally, the revised REQSR will encompass provisions addressing crew supervision, crew resource management (CRM), and oversight of less-experienced employees.

In anticipation of the revised REQSR, TC developed and published a CRM training best practices document on its website in June 2023. This interim guidance document serves as a bridge; it identifies CRM training best practices from other countries and industries and adapts the identified best practices to provide guidance for Canadian railways.

In addition, TC indicated that it monitors railway employee skills and knowledge through both comprehensive and targeted safety management system (SMS) audits, which are linked to the prescribed process for managing knowledge under the *Railway Safety Management System Regulations, 2015*.

The Board is encouraged by the progress made by TC towards modernizing the REQSR and by the publication of the CRM training best practices document as an interim measure. However, until the TSB has the opportunity to review the revised REQSR and the timelines for their implementation, the Board considers the response to Recommendation R18-02 to show **Satisfactory Intent**.

### **December 2024: response from Transport Canada**

Over the past year, Transport Canada has thoroughly reviewed and integrated stakeholder feedback gathered during consultations to assess the feasibility of proposed changes to the *Railway Employee Qualification Standards Regulations*. This input has been carefully evaluated and incorporated into the proposed *Railway Personnel Training and Qualifications Regulations*.

These new regulations, which were pre-published in the *Canada Gazette*, Part I on 14 December 2024, aim to repeal and replace the *Railway Employee Qualification Standards Regulations*. They are designed to create a more comprehensive and robust framework for employee training and qualifications. These new regulations will broaden the scope to include two additional safety-critical positions—remote control locomotive operators (RCLOs) and rail traffic controllers (RTCs)—and introduce provisions for crew resource management, as well as establish requirements for pairing less experienced employees with those who are more experienced.

The training types required under the new regulations will include:

- On-the-job training
- Knowledge training
- Familiarization training
- Continuing training
- Certificate renewal training
- Crew resource management (CRM)

Continuing training will address elements not covered in the initial knowledge-based training, such as new equipment, procedural changes, regulatory requirements, exemptions, and inspection findings.

The proposed regulations also require companies to provide on-the-job training and familiarization training to certificate holders that have not carried out their duties in the previous 12 months for a variety of different reasons, such as illness or leave.

The next step is for Transport Canada to review the feedback collected during the pre-publication consultation period. Based on this feedback, the department will refine and finalize the regulations, with the goal of publishing them in the *Canada Gazette*, Part II.

### **March 2025: response from the Railway Association of Canada**

On 14 December 2024, TC published the proposed *Railway Personnel Training and Qualifications Regulations* (RPTQR) in the *Canada Gazette*, Part I and a proposed Order to repeal the current *Railway Employee Qualification Standards Regulations*. Industry has provided feedback on the proposed RPTQR and intends to continue engaging with TC to discuss proposed language and TC expectations prior to publication of the final regulations in the *Canada Gazette*, Part II.

### **March 2025: TSB assessment of the response (Satisfactory Intent)**

On 14 December 2024, Transport Canada's proposed *Railway Personnel Training and Qualifications Regulations* were pre-published in the *Canada Gazette*, Part I to repeal and replace the *Railway Employee Qualification Standards Regulations*. The proposed regulations aim to create a more comprehensive and robust framework for employee training and qualifications. They incorporate 2 additional safety-critical positions (remote control locomotive operators and rail traffic controllers) and include new provisions for crew resource management as well as requirements for pairing less experienced employees with more experienced colleagues.

The training component of the proposed regulations will cover on-the-job training, knowledge training, familiarization training, continuing training, certificate renewal training, and crew resource management training.

The Board is encouraged by the actions that Transport Canada has recently reported and is looking forward to reviewing the final regulations in the *Canada Gazette*, Part II. Until then, the Board considers the response to Recommendation R18-02 to show **Satisfactory Intent**.

### **Latest response and assessment**

#### **January 2026: response from Transport Canada**

Following the *Canada Gazette*, Part I (CGI) publication of the draft *Railway Personnel Training and Qualifications Regulations* in December 2024, Transport Canada worked closely with stakeholders to address their comments, which centered around three areas:

- Expanding the criteria for positions deemed critical to safety to include maintenance-of-way employees.
- Concerns that time-based criteria did not equate experience.
- Concerns that the proposed pairing requirement would pose challenges for employee scheduling.

Transport Canada is now in the process of finalizing the regulations, with the aim to have them published in the *Canada Gazette*, Part II in 2026.

### **February 2026: response from the Railway Association of Canada**

RAC expects the final RPTQR [*Railway Personnel Training and Qualifications Regulations*] to be published in the *Canada Gazette*, Part II in early 2026.

### **March 2026: TSB assessment of the response (Satisfactory in Part)**

In its response, Transport Canada (TC) described follow-up actions taken after the *Canada Gazette*, Part I publication of the draft *Railway Personnel Training and Qualifications Regulations*, including engagement with stakeholders and consideration of key concerns raised during the consultation process. The Board acknowledges that the draft regulations reflected efforts to address recommendations and risk findings identified in past TSB investigations. However, the identification of stakeholder concerns—particularly regarding the scope of safety-critical positions, the limitations of time-based experience criteria, and the operational challenges associated with crew pairing requirements—suggests that there is a potential to weaken the proposed regulations.

How TC addresses stakeholder concerns as part of the regulatory finalization process will impact whether the regulations related to training, qualification and re-qualification standards, and regulatory oversight address gaps for railway employees in safety-critical positions. Given that TSB investigations have identified the pairing of inexperienced crew members to increase risk in railway operations, the Board believes that railway scheduling should neither outweigh safety considerations nor limit the implementation of appropriate crew pairing.

Until the regulations are published in the *Canada Gazette*, Part II, which TC intends to do in 2026, and the residual risk associated with the safety deficiency in this recommendation is assessed, the Board considers Transport Canada's response to Recommendation R18-02 to be **Satisfactory in Part**.

### **File status**

The TSB will monitor TC's progress on its planned actions.

This deficiency file is **Active**.