

BRIEFING INFORMATION NOTE

Topic	Revisions to the Rules Respecting Track Safety					
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Purpose	For Decision			For Information	X	
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Issue

Transport Canada has revised the *Rules Respecting Track Safety* to establish requirements for concrete ties, inspection of yard tracks, performance indicators, and filing of track standards to Transport Canada. Given the degree of changes, the set of rules requires a full review and assessment to consider how this may apply to BC's provincially regulated railways.

Background

- The *Rules Respecting Track Safety* are part of a broader strategy to strengthen rail safety in Canada, and directly respond to findings in the Auditor General's February 2021 follow-up audit on rail safety.
- Changes announced on May 31, 2022, is the final phase in a series of three. Ministerial Order-07 focuses on major risks that could cause derailments due to the condition of the railway.
- This latest series of changes to the rules builds on two previously announced revisions in May 2021 and December 2021 that focused on training and qualification of railway personnel who inspect tracks, rail wear management, track geometry, track inspection frequency, and automated track inspection technology. Phase three of the rules have an effective date of May 31, 2023.

Discussion

Rules Respecting Track Safety

Approved in May 2022, Phase three is the most recent and final change to the *Rules Respecting Track Safety*. Phase three focuses on structures and major risks that could cause derailments due to the condition of railway infrastructure. This requires railway companies to:

- Establish requirements for inspection of yard tracks over which passenger equipment carrying passengers operates;
- Develop key performance indicators to help Transport Canada analyze track conditions and inform the department's oversight activities;
- Strengthen requirements for railways to inspect and maintain crossties; and
- Provide Transport Canada inspectors with access to additional information on company track standards so they can ensure that oversight is effective and consistent across Canada.

Phase one changes were approved in May 2021 and specified safety requirements that railway companies must follow when inspecting and maintaining their railway track infrastructure, and on the training, qualifications, quality assurance. This required railway companies to:

- Put in place a certification process for employees who inspect tracks and supervise the restoration of tracks to make sure their personnel have the proper knowledge and experience to carry out their safety duties;

- Establish a process to ensure that track maintenance and repair work meets regulatory requirements and the railway companies' own standards to improve accountability; and
- Develop and implement a comprehensive plan to manage rail wear and the condition of the rail surface, as approved by a professional engineer to improve the integrity of railway tracks.

Phase two changes were approved in December 2021 and focused on track inspection frequency and the use of automated track inspection technology. This required railway companies to:

- Increase the frequency of railway track inspections in higher risk areas where trains travel at faster speeds while carrying a greater tonnage of freight;
- Follow new procedures governing the use of advanced automated track inspection technology; and
- Ensure inspection data clearly identifies the exact date and track mileage of any track inspection so that rail safety inspectors can effectively verify compliance with regulatory requirements.

See Appendix A for the specific additions to the *Rules Respecting Track Safety*.

Impacts

Rules Respecting Track Safety

- It is anticipated Section D, **Track Structure; Subsection: Crossties**, may have some impact on provincially regulated railways. This section sets out conditions for concrete crossties to satisfy requirements, whereas most provincially regulated railways use wooden crossties.
- It is anticipated Section 6, **Yard Track Visual Inspections**, may have some impact on provincially regulated railways. This requires passenger trains to be inspected weekly before operation. Weekly inspection will have a significant impact on heritage railways that run passenger trains. Currently, passenger trains are required to be inspected once a month.
- It is anticipated Section 10, **Railway Company Track Standards for Inspection, Maintenance and Repair Work**, may have an impact on provincially regulated railways. This requires railway companies to develop their own company track standards and file their standards with Transport Canada in an electronic searchable format. This may be administratively and economically demanding to smaller railway companies and industrial sites as there are limited instances where they would need to have their own railway company track standards.
 - Some consideration may need to be given to the practicality of these requirements for industrial railways and options around provincial implementation.

Conclusion

To ensure provincially regulated railways align with the latest industry best practices, Technical Safety BC advises the Province to adopt the final phase of the *Rules Respecting Track Safety*.

Appendix A: Additions to the Rules Respecting Track Safety

Addition- Section D: Track Structure, Subsection II: Crossties (e)

- Concrete crossties counted to satisfy the requirements of item (c) of this section shall not be:
 - (1) Broken through or deteriorated to the extent that the stressing tendon material is visible;
 - (2) So deteriorated or broken off in the vicinity of the shoulder or insert so that the fastener assembly can either pull out or move laterally more than 3/8 inch relative to the crosstie; (
 - (3) So deteriorated that the base of either rail can move laterally more than 3/8 inch relative to the crosstie on curves of 2 degrees or greater; or can move laterally more than 1/2 inch relative to the crosstie on tangent track or curves of less than 2 degrees
 - (4) So deteriorated or abraded at any point under the rail seat to a depth of 1/2 inch or more;
 - (5) So deteriorated such that the crosstie's fastening or anchoring system, including rail anchors is unable to maintain longitudinal rail restraint, or maintain rail hold down, or maintain gauge due to insufficient fastener toe load; or
 - (6) Configured with less than two fasteners on the same rail except where fastener placement impedes insulated joints from performing as intended, the fastener may be modified or removed, provided that the crosstie supports the rail.

Addition- Section 6.2 (c) Yard Track Visual Inspections

- Unclassified or classified yard track where occupied passenger trains are operated must be inspected weekly or before the operation of an occupied passenger train

Addition- Section 11: Key Track Performance Indicators

- 11.1 A railway company must calculate, for each subdivision with key routes, the following key track performance indicators:
 - a) Repeat geometry defect: number of repeat geometry defects per mile for each calendar year;
 - b) Multi class drop geometry defects: number of deviations requiring a two-class speed reduction per mile, identified by a Heavy Geometry Inspection Vehicle, in each calendar year.
- 11.2 The key track performance indicators referenced in 11.1 above, for each calendar year, must be reported to Transport Canada by January 30th of the subsequent calendar year.

Addition- Section 10: Railway Company Track Standards for Inspection, Maintenance and Repair Work

- 10.1 Each railway company must have documented railway company track standards.
- 10.2 Upon request, a railway company must file its railway company track standards with Transport Canada in an electronic searchable format