Track Standards Bulletin #010

Various Sections

March 10, 2023 Bulletin No. 010

REVISED

Refer to Section 2 and add definitions in alphabetical order and renumber accordingly:

4. Ballast Cars – hopper style rail car (rolling stock) which distributes ballast from the under side of the rail car.

5. Ballasted Track – A section of track where the tie cribs and shoulders are comprised of consolidated track ballast which provides adequate vertical, lateral, and longitudinal restraint of the rail.

15. Corrugation - a repetitive longitudinal pattern of shallow wavelike depressions along the rail surface.

34. Flattened Rail (also known as localised surface collapse) - a short length of rail, not at a joint, which has flattened out across the width of the rail head.

88. Unballasted Track – A section of track where the tie cribs do not contain consolidated track ballast and the ballast profile is noncompliant to GTS-2205.

93. Winter – is the period of time between November 15th and March 15th annually.

Refer to Section 2.18 and revise to read:

18. Crushed Head - a short length of rail, not at a joint, which has drooped or sagged across the width of the rail head. Unlike flattened rail where the depression is visible on the rail head only, the sagging or drooping is also visible in the head/web fillet area.

Refer to Section 4.9.24 and add:

i. Under no condition will rail be left in a non-destressed state following the onset of Spring

Refer to Section 4.9.24 and add:

26. Destressing documentation and records must be submitted to the Director of Engineering - Track within 48 hours of completion of work.

Refer to Section 11.2 and add:

12. Air dump and tilt side dump style rail cars are not permitted to be utilised on Metrolinx property without written authorisation from the Director, Engineering - Track or the CM Senior Manager of Track Maintenance Delivery.

13. Prior to unloading/distributing ballast using any method, a detailed work plan methodology specific to the method of ballast distribution must be submitted to Metrolinx complete with a formal risk assessment reflecting all known risks and associated risk mitigation plan. Table 21b refers to restrictions and requirements for ballast distribution when using ballast cars.

Table 21b – Ballast Distribution Requirements when using ballast cars

Ballasted Track	Unballasted Track
• Must not distribute ballast on superelevated track sections exceeding 4" (102 mm) *.	• Must not distribute ballast on superelevated track sections exceeding 2" (51 mm) on subgrade where the compaction is unknown or less than 98% SPDD. For track sections where the subgrade has a compaction rate of 98% SPDD or greater the superelevation limit may be increased to 3" (76 mm).
• Must not shake ballast cars in spirals or curves.	• Must not shake ballast cars.
• The ballast within the ballast cars must not exceed the total weight capacity of the car and must be evenly distributed within the ballast car.	• The weight of the ballast within the ballast cars must not exceed 75% of the total weight capacity of the ballast car when the subgrade compaction is unknown or less than 98% SPDD. For track sections where the subgrade has a compaction rate of 98% SPDD or greater, the weight within the ballast shall be governed by the maximum weight capacity of the ballast car. The weight of the ballast must be evenly distributed within the ballast car.
• Must not distribute ballast on track sections which are non-compliant to Class 1 track tolerances found in Appendix D – Urgent Defects.	
• The ballast must not be unloaded in a manner which creates an unbalanced load condition within the ballast car.	
• Loaded ballast must be visually inspected by a qualified person to ensure the load is safe to travel prior to departure from the loading location.	

*Note: For sections of ballasted track with superelevation exceeding 4", a formal Risk Assessment specific to the increased superelevation must be submitted to and accepted by Metrolinx before any additional actions may be taken.

14. Following any work, any unused or spoiled ballast shall not be left stockpiled within the railway corridor. Ballast or spoils that are reprofiled into the existing corridor shall not impact any drainage features.

Refer to Section 15.16.3 and

3. Additional track inspections should also be considered during the first "cold snap" of the season, where temperatures drop to below -20°C.

Refer to Section 16.1.5 and revise to read:

1. Deviations approaching Transport Canada Rules Respecting Track Safety minimum safety requirements for track geometry are defined as "NEAR URGENT" conditions. These are typical 90% of the Transport Canada Urgent defect values.

   a. NEAR URGENT conditions are to be corrected and signed off within 30 days of discovery.

   b. Where a NEAR URGENT defect cannot be corrected and signed off within 30 days of discovery, perform a subsequent light or heavy track geometry inspection in order to confirm if it escalated to an urgent defect.

   c. NEAR URGENT defect limits are found in Appendix C1 – Near Urgent Defects.

Refer to Section 16.1.8 and add:

   b. Any occurrence of an alignment defect and a surface defect within 11 ft. of one another, or an alignment defect and a warp 31 defect within 11 ft. of one another must be treated as an Urgent combination defect for the class of track and action must be taken immediately to protect the track as prescribed in Track Standard Section 16.1.4. Two combinations of track geometry defects and their limits are defined in Appendix D - Urgent Defects.

Refer to APPENDIX D – URGENT DEFECTS and add new Table:

URGENT DEFECTS (Combination Defects)		Track Class				
		1	2	3	4	5
Passenger (mph)		15	30	60	80	95*
Freight (mph)		10	25	40	60	80
Alignment and Surface	Alignment Curve/Spiral 31 ft. (9.45 m)	N/A	1″ (25)	7/8″ (22)	7/8″ (22)	N/A
	Surface	N/A	1-1/2″ (38)	1-1/4″ (32)	1-1/4″ (32)	N/A
Alignment and Warp 31	Alignment Curve/Spiral 31 ft. (9.45 m)	2″ (51)	1-1/4″ (32)	1″ (25)	3/4" (19)	N/A
	Warp 31 ft. (9.45 m)	1-3/4″ (44)	1-1/4″ (32)	1″ (25)	3/4" (19)	N/A
Any part of one defect must be within 11' of the other defect to be considered a combination defect. *100 mph for LRC Trains						

Refer to APPENDIX I – REMEDIAL ACTION FOR RAIL DEFECTS and revise Table 49:

Depth of Surface Defect		Remedial Action
Rail Wear is less the increased monitoring limits	Rail wear is greater than the increased monitoring limits	
less than 3/16 (5mm)	less than 1/8″ (3mm)	Monitor and repair
3/16″ to 5/16″ (5mm) to (8mm)	1/8″ to 3/16″ (3mm) to (5mm)	Limit operating speed to 30 mph and repair or replace
greater than 5/16″ (8mm)	greater than 3/16″ (5mm)	Limit operating speed to 10 mph and repair or replace
Corrugation		
If corrugation exists to the extent that prevents conducting a valid rail flaw test (i.e. results in a No Test Rail)	• Perform corrective actions as per Track Standard Section 18.4.14.	

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These changes are effective immediately.

END
Signed:

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