

Ballast – Dig Out Contaminant

Scope

Includes: Removal of ballast contaminated with oil, effluent and fines.

Excludes: Ballast contaminated with hazardous chemicals /asbestos. Wet beds or contaminated shoulders

Preparation

Tools, equipment and plant items required but not limited to:

- Approved rail thermometer
- Pan Pullers
- Hammers
- Shovels, forks, picks and bars
- Kango and attachments
- Vibrating compaction plate
- Slewing Bars
- Clips, pads and insulators
- Wheelbarrows

Work planning considerations:

- Depth of contamination
- Track geometry issues
- CAT scan and buried services survey
- Traction requirements
- Signalling requirements
- Site access requirements
- Weather precautions and rail temperature
- Material requirements
- Condition and protection of drainage and outfalls
- Waste removal

Method

1. Ensure the rail temperature is within safe working limits.
2. Ensure maximum number of unsupported sleepers is not exceeded. For jointed track NR/SP/TRK/001 states, for lines open to traffic, that ballast must be removed from no more than six consecutive beds. For CWR ballast shall not be removed from more than six alternate half-cribs or two consecutive full cribs within a 9m length.
3. Ensure work is towards the direction of traffic.
4. Ensure that ballast is loosened around contaminated sleepers and shovel packed to give temporary support for trains, as required, before digging out.
5. Dig to appropriate depth below sleeper or as instructed.

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6. Ensure a cross fall is maintained in accordance with NR/SP/TRK/102 i.e.1:20 towards drain or 1:20 towards cess and continuous away to beyond the ballast shoulder.
7. If the contamination is present beneath sleeper level, carry out work involving moving sleepers as per the digging out wet beds NR/L3/TRK/002/B06.
8. Backfill and compact with clean ballast.
9. Box in, pack and restore the ballast shoulder ensuring good ballast regulation.
10. Ensure new clips, pads and insulators are fitted.
11. Ensure disposal of waste ballast in accordance with company procedures. Refer to NR/PRC/MTC/EN0100 Waste Management.

References

Supports Ellipse Standard job

- 009229 Ballast – Dig Out Contaminant

If applicable refer to the following associated documents:

- NR/SP/TRK/001 Inspection and Maintenance of Permanent Way
- NR/SP/TRK/102 Track Construction Standard
- NR/SP/TRK/0011 Continuous Welded Rail (CWR) Track
- NR/PRC/MTC/EN0100 Waste Management
- NR/L3/TRK/002/B03 Ballast – Regulate – Manual
- NR/L3/TRK/002/B05 Ballast – Shoulder Clean – Manual
- NR/L3/TRK/002/B06 Ballast – Shoulder Clean – Mechanical
- NR/L3/TRK/002/B08 Track – Dig Wet Bet – Manual
- NR/L3/TRK/002/B09 Track – Dig Wet Bet – Mechanical
- NR/L3/TRK/002/F19 Track – PL – Lift and pack
- NR/GN/TRK/7001/TWI2B004 How to regulate ballast by hand
- NR/GN/TRK/7001/ TWI2B006 how to treat wet beds manually
- NR/GN/TRK/7001/ TWI2L001 How to clean a ballast shoulder

- Risk Control Sheets:
 - NR/L3/MTC/0002/TK000 Generic Track Risks
 - NR/L3/MTC/0002/TK103 Working with ballast – Regulate, glue shoulder, clean contaminants & wet beds