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महाप्रबंधक कार्यालय
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No.: W-HQ/W-4/Track/Safety/45-XIII/2

Date: 17.09.2025

Sr. DEN / Co.
West Central Railway
JBP / BPL / KOTA

Sub.: Joint Procedure Order (JPO) for Machine Packing of Turnouts and other locations.

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A Joint Procedure Order (JPO) for Machine Packing of Turnouts and other locations duly signed by CTE, CSE and CPTM is hereby circulated for its implementation in field with immediate effect.

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Copy to:

- (i) Secy. to GM - for kind information of GM/WCR, please.
- (ii) PCE, PCEE, PCSTE and PCOM - for kind information, please.
- (iii) DRM / JBP, BPL & KOTA - for kind information, please.
- (iv) All HODs of Engineering Department - for information, please.

JOINT PROCEDURE ORDER FOR MACHINE PACKING OF TURNOUTS AND OTHER LOCATIONS

1.0 OBJECTIVE:

In order to carry out the machine packing of turnouts so as to improve the quality of running in yards and reliability performance of the associated signalling gears, it is proposed to draft and circulate JPO covering modalities of machine working of turn-outs and other locations.

2.0 BACK GROUND:

Presently, the turnout sleepers in switch portion are having signalling fixtures which are being left without being packed by UNIMAT machine. These sleepers are subsequently packed manually. Manual packing of these sleepers very often does not result in quality of packing and retention which entails frequent attention by Engineering & S&T staff. In addition, there is a perceptible difference in riding quality over the switch portion of turnouts as manual packing cannot ensure design standards.

For tamping of sleepers in switch portion, signalling fixtures are required to be disconnected before the tamping operation and later on reconnected. Therefore, disconnection and reconnection of points are additional activities involved if entire switch portion is required to be tamped by the machine.

Similarly, there are other locations like Axle counters, Track Circuits, Glued joints, Guard Rails in approaches/on the bridges, level crossings etc. which also need to be opened before taking-up the work of machine tamping.

3.0 Advance Planning by the division:

3.1 As per present practice, monthly advance programme for machine working shall include tamping of turnouts is being prepared jointly by Sr. DSTE and Sr. DEN. Advance weekly programme prepared for track machines includes respective station yards etc., which is jointly signed by Sr. DSTE, Sr. DEN & Sr. DOM for proper planning of the required traffic blocks. Division shall ensure full utilization of blocks including works to be carried-out in shadow of blocks by all Departments.

3.2 Engineering & S&T department need to mobilize adequate strength of labour and supervisors for carrying out this activity. In case of non-availability of adequate labour, outsourcing of the same can be done. S&T Deptt. may consider creating and deploying special team for carrying-out this activity. S&T provisions contained in Track Renewal works may be utilized for carrying out signalling activities including their outsourcing, as required.

3.3 As per the present tamping cycle on concrete sleeper track, which is once in two years, the plain track as well as the turnout portion are tamped by

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CSM & UNIMAT machines. Therefore, Division should ensure concurrent deployment of both the machines. In exceptional cases, there should be minimum time gap between deployment of 2 types of machines. Subsequently, the efforts should be made to match the same.

- 3.4 On an average 800 to 1200 turnouts are required to be tamped over any Division of WCR in each year. This works out to be 80-120 turnouts per Division per month. Therefore, this exercise should be undertaken as a project by all concerned Departments and these blocks should be fully utilized for attending the turnouts as a whole w.r.t. the fittings, assembly, gears etc. The provisions of Para 429 of IRPWM-2024 (Maintenance of points & crossings), Para 224 of IRTMM-2019 and Para 12.3.1; Para 12.13.2 to 12.13.4; Para 17.7.2 (g); Para 17.8.1 (a) to (d); Para 19.3.1 (b) & (e) of IRSEM 2021 (Version-3) should be taken care of while carrying out this exercise of tamping of turnouts.

4.0 The major activities for the work are listed below:

4.1 Pre-Traffic Block activities

- (i) Oiling & greasing of P. Way connections.
- (ii) Oiling & greasing of S&T connections.
- (iii) Oiling & greasing of S&T gears of point machine.
- (iv) Application for disconnection by S&T Deptt. (with remarks by P. Way)
- (v) Application for Traffic Block by Engg. Deptt. (with remarks by S&T)

4.2 During Traffic Block

- (i) Machine movement for site & setting up of machine.
- (ii) Removal of S&T gears during the disconnection of point.
- (iii) Start of Tamping Work.
- (iv) Tamping of switch portion should generally be taken up first so that while tamping work is in progress, S&T reconnection work can go ahead.
- (v) Reconnection of S&T gears after tamping of switch portion.
- (vi) Completion of tamping, S&T reconnections & remaining work.
- (vii) Clearance of traffic block (jointly by S&T and P. Way).

4.3 Analysis

Approx. time for Turnout tamping is as under:

S. No.	Item	Approx. Time
1.	Pre-traffic Block activity	60 min.
2.	During Traffic Block	120 min.

NOTE: The average time indicated above for individual activities may be slightly different as per site conditions. In exceptional cases, traffic can be

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WEST CENTRAL RAILWAY

cleared during Pre-traffic block by clamping and pad-locking of concerned points.

4.4 The parallel activities are as under:

- (i) Oiling and greasing of P. Way & signalling gears during the pre-traffic block period.
- (ii) Disconnection of the switch area takes about 30 minutes, therefore the travelling of UNIMAT machine to the site and setting-up of tamping work i.e. the activity of disconnecting S&T gears is a parallel activity (i.e. while tamping machine is being set-up) during initial 15 min of traffic block. In case of turnout being tamped from the trailing direction, the activity of disconnection of S&T gears is totally a parallel activity.
- (iii) After Tamping of point machine sleepers, reconnection of S&T gears in the switch portion takes about 60 minutes, during which period the tamping machine will tamp the remaining portion of turnout.

5.0 The above JPO shall be implemented over West Central Railway w.e.f. 01.10.2025 and shall be reviewed after 6 months. Divisions should provide feedback to improve the same further.

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