

**GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
(RAILWAY BOARD)**

**No. 2010/Track-III/TK/15**

**New Delhi Dt. 22.10.2024**

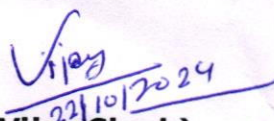
**Principal Chief Engineer,  
Northeast Frontier Railway  
Maligaon, Guwahati.**

**Sub: Creation of manpower for Track Machines.**

**Ref: PCE/NFR letter no. W/235/1/TMPolicy/Pt-XV/TMC dated  
09.10.2024.**

The issue raised by Northeast Frontier Railway has been examined and it is found that NFR should proceed on the following lines to mitigate the shortage of staff for Operation and Maintenance (O&M) of Track Machines:

- 1) As per policy issued vide letter dated 18.03.2024, Zonal Railways have already been advised for carrying out O&M of Track Machines, even when sanctioned posts are not available.
- 2) Further vide letter dated 13.08.2024, policy for the mechanised maintenance and renewal of tracks for Mission 3000 MT was issued. Railway should outsource the O&M of Track Machines as per the policy, which will bring down the requirement of staff.
- 3) Besides above, RBE No. 54 of 2022, which was reiterated vide this Office letter dated 04.01.2024; redistribution of Non-Gazetted posts within the grade in the Zonal Railway was allowed. The flexibility provided to GMs for redistribution of posts may also be exercised.

  
**(Vijay Singh)**

**Executive Director Track(M&MC)  
Railway Board  
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Room No. 150, First Floor, Rail Bhawan**

**Copy to : PCEs/all Zonal Railway except NFR**

2023/Track-III/TK/2

I/3102596/2024

**GOVERNMENT OF INDIA ( भारत सरकार )**  
**MINISTRY OF RAILWAYS ( रेल मंत्रालय )**  
**( RAILWAY BOARD ) ( रेलवे बोर्ड )**

No.2023/Track-III/TK/11

New Delhi, dated 13.08.2024.

**General Manager,**  
**All Zonal Railways.**

**Sub:- Implementation of Policy for Maintenance and Renewal of tracks for Mission 3000 MT.**

**Ref:-** (i) Railway Board letter No. 2010/Track-III/TK/15 Vol.II Pt.3, dated 18.03.2024

1. As per Railway Board letter No.2010/Track-III/TK/15 Vol.II Pt.3 dated 18.03.2024, the outsourcing of O&M for the track machines has been allowed which includes the cases where there are no sanctioned post for new machines. The Copy of the letter is enclosed as Annexure 'A'.
2. Now policy for Renewal and Maintenance of tracks for Mission 3000 MT has been approved by Board (MOBD, MI, MF and CRB & CEO). Copy of the same is enclosed herewith as Annexure-'B'.
3. As per the approved Policy, 'Hybrid Model' has been allowed for track machines being used for track renewal & rehabilitation and planned track maintenance. Zonal Railways are advised to take further necessary action for outsourcing of operation and maintenance of these machines **as per need**.
4. A model tender document covering all type of machines shall be issued in due course by Railway Board for reference of Zonal Railways.

**Encl:** As above

*Vijay*  
13/8/2024

**( VIJAY SINGH )**  
**Executive Director, Track (M&MC)**  
**Railway Board**  
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**Raisina Road, New Delhi - 110 001**

Annexure - 'A'

GOVERNMENT OF INDIA ( भारत सरकार )  
MINISTRY OF RAILWAYS ( रेल मंत्रालय )  
( RAILWAY BOARD ) ( रेलवे बोर्ड )

No. 2010/Track-III/Tk/15/Vol.II Pt.3 New Delhi, Dtd. 18.03.2024

General Managers,  
All Zonal Railways.

**Sub: Outsourcing of staff required for operation & maintenance of track machines beyond sanctioned posts in Track Machine organization.**

Ref.: i) NER's letter no. W/275/34/0/A/TMC/Pt.IX/4A dated 25.10.23.  
ii) SWR's letter SWR/W.506/TM/28/CP dated 21.10.23.  
iii) Railway Board letter no. 2021/Track-III/Tk/14 dated 07.09.2022

For complete mechanization of track maintenance, track machines are required for maintenance & renewal of IR track but due to shortage of track machine staff either due to vacancies or due to non-creation of adequate posts, the O&M of machines gets hampered and it becomes difficult to utilize the machines to the fullest extent.

To resolve the above issue and for optimum utilization of track machines, Zonal Railways should explore the possibility of outsourcing the activity of track maintenance by track machines, as is already being done on certain Zonal Railways, in consultation with associate finance.

The expenditure for this outsourcing of O & M of railway owned machines shall be charged as per policy letter in this regard at ref(iii).

This issues with the approval of Board (MI & MF).

*Vijay*  
18/3/2024

( VIJAY SINGH )  
EXECUTIVE DIRECTOR TRACK (M & MC)  
RAILWAY BOARD

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**Subject: Policy for the mechanized maintenance and renewal of tracks for Mission 3000 MT**

**1.0 Background:**

Track is one of the most important components of Railway infrastructure. For ensuring Safety of train operations it is important that Track is maintained in good fettle. With the increase in traffic density, high axle loads and speeds, higher forces are exerted on the track, which requires its better maintenance. Also, the time intervals between trains are getting reduced, making manual maintenance difficult. It is therefore imperative that adequate capacity for mechanized maintenance is built to cater to increase in traffic density, speeds and axle load for ensuring safety in train operation.

1.1 Indian Railways had carried out an elaborate exercise based on National Rail Plan (NRP) by identifying and prioritizing crucial capacity enhancement works for implementation by 2027 to increase the modal share of railways in transport logistics of the country. The report based on this exercise, titled "Mission 3000 MT" has been issued in May 2022, which outlines the measures required to enable Indian Railways to carry 3000 million tons of traffic.

1.2 As per this report, to sustain the required traffic growth, the Track Kilometers need to be increased from 1,18,578 to 1,56,469, i.e., an increase of 32%. In order to maintain and run this infrastructure in a safe and efficient manner, IR needs modern and reliable track machines to renew and maintain the Tracks. To achieve these goals, this policy has been formulated to build the track maintenance capability.

**2.0 Track Maintenance Activities**

The instructions and guidelines governing the track maintenance & renewal are to be carried out in accordance with the provisions contained in the IR Permanent Way manual. **The activities** can broadly be categorized as under:

- i) Track renewal and rehabilitation
- ii) Planned Track maintenance
- iii) Urgent/Spot track attention

**2.1** The track **renewals and rehabilitation** activities can further be grouped as:

- i) Renewals of plain track components, i.e., rails and sleepers:  
Rails are the main load bearers of the track and transfer the wheel loads to sleepers through track fastenings. Due to fatigue and wear during service, these become due for renewal on condition/GMT carried basis (Para 702 (1) of IRPWM). Sleepers are taken up for replacement when they become unserviceable on condition basis (Para 702 (2) of IRPWM.)
- ii) Renewals of turnouts (switches and crossings) on condition/ GMT carried basis (Para 717 of IRPWM).
- iii) Renewal of fastenings may have to be carried out along with renewal of rails/sleepers or for fastenings alone (para 718 of IRPWM)

- iv) Renewal of ballast to achieve the required track elasticity and drainage: Track ballast needs to be renewed based on clean/total cushion for mainline and on age basis for loop lines. (Para 636(2) of IRPWM)
- v) Formation rehabilitation involving the replacement/treatment of the top layer of the formation: It is required when the soil in the top layer of the formation is weak, which warrants frequent attention to track.

## 2.2 Planned Track Maintenance activities broadly include the following:

- i) Grinding of rails in plain track, switches and crossings to maintain the required rail profile and to remove rail surface defects, which if unattended, may lead to faster wear and crack propagation in rails. The gauge face of rails, particularly in curves, is also required to be kept lubricated to reduce the wear caused by flanging of wheels.
- ii) Tamping of plain track and turnouts for maintenance of required track geometry. It should be followed by dynamic stabilization for better retention of tamping and restoration of ballast resistance after tamping.
- iii) Screening of shoulder ballast (commonly called shoulder ballast cleaning of the track) to improve track drainage.
- iv) De-stressing of long welded rails.

## 2.3 Urgent/Spot track attention broadly includes the following:

- i) Repairs to rail/weld fracture, including in-situ AT welding to maintain the track integrity.
- ii) Scattered replacement of worn/defective switch and crossing components, SEJs, glued joints, rails, sleepers etc.
- iii) Rail cutting, drilling, chamfering, welding and reconditioning etc.
- iv) Spot-tamping attention to take care of local track irregularities.
- v) Sundry other maintenance activities to keep the track in good fettle.

## 3.0 Factors affecting inputs to the track maintenance

The frequency and quantum of inputs for track maintenance and renewal primarily depend upon the following:

- i) Traffic being carried in terms of GMT which affects the wear, tear and fatigue life of the track. Inputs required for track maintenance increase with increase in GMT.
- ii) Strength of the track structure itself: A heavier and stronger track would degrade slowly and need lesser maintenance inputs.
- iii) Track geometry: Curved track or tracks on steeper gradient would require greater maintenance inputs than straight track or level track due to more wheel flanging (on curves) and higher tractive/braking forces between rail & wheels.
- iv) Axle load and Condition of rolling stock (especially the suspension): Heavier axle load, poor suspension, wheel profile, bogie hunting, etc. would cause faster degradation of track.
- v) Train speeds: With faster train speed, the dynamic stresses are more, resulting in faster degradation of track.

- vi) Weather conditions (Rainfall, Temperature & its variations, salinity, air quality, etc.): Adverse and inclement weather conditions would require an increase in track maintenance inputs.
- vii) Quality of track maintenance and renewal: A track laid/renewed or maintained to better quality will degrade slower as compared to a track laid or maintained to inferior quality, timely interventions of maintenance (preventive or protective maintenance) also reduce the overall maintenance and renewal requirement over the life cycle.

#### **4.0 Requirements of Track Machines for the required activities**

The requirement of track machines depends upon the factors of maintenance inputs narrated in para 3.0 above. Numbers also depend upon the average time given to track machines for actual working (traffic blocks and the ease of traffic path for movement). The track machine directorate of Railway Board has carried out an exercise considering the projected track lengths and traffic conditions expected for Mission 3000 MT. The requirement of machines has been worked out as summarized at Annexure A. Zonal Railways may carry out their own detailed assessment of track machine requirement.

#### **5.0 Present system of working of Track Machines in IR**

IR currently owns the track machines, which are largely being operated & maintained by IR. The support of OEMs is taken in a limited manner for trouble shooting and major repairs through annual maintenance contracts (AMCs) or otherwise. For this, IR has its own track machine department and a trained cadre. The day-to-day maintenance, repairs, intermediate overhauling (IOH), and periodic overhauling (POH) of track machines are at present being done in different depots and track machine workshops across the country. Some heavy track machines, such as Rail Grinding Machines, Switch Rail Grinding Machines and Track Renewal Trains, though owned by IR are also being operated and maintained by the OEMs. Some of the machines, such as Mobile Flash Butt welding Plants are owned, operated and maintained by our partners.

#### **6.0 Different Options of track machine ownership, operation and maintenance**

Considering the need of network expansion and growth in traffic there is a need to consider various options prevalent in the railway sectors of other countries. As per the global practices regarding ownership, operation and maintenance of these track machines, various options, are broadly categorized as under:

##### **6.1 Departmental Ownership, operation and maintenance:**

In this model, which covers majority of our track machines currently, it is the department which owns, operates & maintains all track machines, with limited support of OEMs for periodic maintenance, troubleshooting and major break downs but the primary responsibility of maintaining the machine remains with the department itself.

## 6.2 Service Agreement:

### (A) Output based

The Partner owns, maintains & operates the track machines and gets paid on the basis of the outputs delivered. The deployment of railway staff in operation remains limited to the observance of railway signals, routes, speed restrictions and suggested safety protocols, etc. through LP/ALP/SSE/JE track Machines, and the railway takes care of coordination and inter-departmental issues. In this model, the partner is expected to maintain the machine in good fettle to ensure high availability and high performance. The payments (return on his investments) are linked with the output of work, which, in turn, depends upon the hours of work done by track machines in the given **traffic path and traffic blocks**. Reasonable assurance in availability of path and blocks is important for the success of this model.

### (B) Availability based

The **partner owns, maintains, and operates the machines** and offers the services of using such track machines to the Railway for an agreed payment. **Payment is based on Machine availability and usage.** The deployment of railway staff in operation remains limited to observance of railway signals, routes, speed restrictions, safety protocols, etc., through LP/ALP/SSE/JE track Machines, and the railway takes care of all coordination and inter-departmental issues. The partner has to ensure that its machines remain fit and operational for an agreed number of hours daily and for an agreed number of days in a month/quarter. Partner's risk due to non-availability of path or block is eliminated and they get paid for making the machine operational and fit for the required assured durations.

As the partner is paid for availability and usage of the machine owned, maintained and operated by him, he would maintain the machine in good fettle and ensure high availability. The partner shall offer the machines in fit conditions and shall be responsible for the good working of machines; the railway will also be free to plan the machines deployment as per its operational convenience.

## 6.3 Hybrid Model

In this model, the **department owns the machine**, whereas the operations and maintenance are done by the partner. The deployment of railway staff in operation remains limited to observation of signals, routes, speed restrictions, safety protocols, etc. of signals through LP/ALP/SSE/JE track Machines; the railway is responsible for safety of track machine working, coordination including taking/clearing traffic blocks and inter-departmental issues, if any. The maintenance of the machines is done by the partners; the partner has to ensure that its machines remain in good fettle and is available for requisite number of hours on agreed number of days in a month/quarter. Alternatively, the partner gets paid for the actual work performed.

**7.0 Proposed scheme:**

As IR plans to scale up the track infrastructure, its consequent renewal and maintenance requirements would also increase. In order to cope with this need for maintaining safe tracks and having considered all options as narrated above, there is a need to engage the manufacturers and competent partners for the operation and maintenance of the additional track machines that IR needs. This is expected to bring better cost efficiencies, higher reliability, and greater availability of machines with a higher quality of output. Accordingly, following model is planned for further procurement and operation of existing machines.

**7.1 Track Renewal and Rehabilitation:**

Further procurement of complete set of track machines for Track Renewal and Rehabilitation works may be carried out on Hybrid model. Existing track machines (complete set for each site) may be gradually switched to hybrid model.

**7.2 Planned track maintenance:**

Further procurement of track machines for planned maintenance may be carried out on Hybrid model. Existing track machines may be gradually switched to hybrid model. To ensure fallback capacity to meet with exigencies in maintenance due to failure of agreement etc 40 % of track machines required for track maintenance should be operated and maintained departmentally.

**7.3 Urgent/spot attention and MMU works:**

7.3.1 Considering the urgency for train operation, safety repercussions and remote/scattered locations of such works, it is planned that IR continues to own such required machines with Operation by itself.

7.3.2 Point and Crossing Changing Machines (PCCM) are very important machines for new infrastructure creation which are used mostly during pre NI and NI work. However as use of these machines is not regular; partners may not come forward for bidding and the quoted cost may be too high. Therefore PCCM machines shall be owned, operated and maintained by IR.

**7.4 Refurbishment & Operation of old machines:**

7.4.1 Old Track machines due for condemnation can be re-used after rehabilitation and refurbishment if the proposed cost is considered viable after conducting cost-benefit analysis. The proposals will be vetted by Zonal Railways.

7.5 Model tender documents will be prepared by the Track directorate of the Railway Board in consultation with Associate Finance.

Railways may call tenders by utilizing the same with suitable amendments as per local requirements.

7.6 Zonal Railways shall ensure that operation and maintenance of machines is carried out in terms of provisions of IRTMM-2019.

**8.0 Infrastructure and other requirements such as Camp Coach facilities**

**etc. for operation, maintenance of Track Machines**

- 8.1 Necessary infrastructural facilities such as CPOH, ZMD, Satellite Depots, Track Machine sidings for stabling & Camp coach facilities as per Para-809 & 810 of IRTMM, 2019 (Indian Railway Track Machine Manual) for maintenance of these capital-intensive track machines shall be created by Zonal Railways immediately. In this regard, instructions already issued on streamlining of budgeting and financial management in Track Machine Organization by Railway Board vide letter No.2021/Track-III/TK/14, dt.07.09.2022 shall be followed for sourcing the funds chargeable to estimates of Track Renewal/Construction/RVNL/DFC projects.
- 8.2 The requirement of track machines will increase substantially to meet the projected track lengths and traffic conditions expected for Mission 3000 MT. Many of the track machines will have to be deployed for night working calling for Additional Supervisors of both Permanent Way and Track Machines for ensuring safety. Adequate number of Permanent Way Supervisors are essential for arranging, monitoring and carrying out pre, during and post block working of track machines and also for ensuring safety at work site. Similarly, adequate number of Track Machine Supervisors are essentially required even when partner operated and maintained track machines are deployed for ensuring safety during run through movement in group, working of track machine in traffic block, requirement of pilot for calling the signals and shunting of track machines. Zonal Railways should ensure proper deployment of staff.

**9.0 Training and skill development in Track Machine Organization**

Skilled and trained manpower is required for ensuring safety and optimal utilization. The staff belonging to partners should also be imparted with necessary training in regard to safety and skill development by Railways. The infrastructure and training facilities available at the training institute (IRTMT/PRYJ) should be suitably upgraded.

These policy instructions as above are issued as broad guidelines. General Managers of Zonal Railways may decide on adoption of a suitable model considering the prevailing circumstances, site requirements, etc.

## Annexure-A

Track Machines requirement on IR		
Type	Machine	Total Numbers Required
Planned Maintenance Machine	HOTS-3X	133
	PCT	177
	SBCM	93
	SRGM	24
	RGM	12
	RIV	12
	RMM	1
	8 stone RGM	1
	BRM	73
	MDU	84
	TRT	37
Track Renewal Machines	BCM	255
	TLE	66
	WST	308
	DTS	308
	BRM	235
	MDU	336
	MPT	258
Urgent/spot attention and MMU works	UTV	261
	RBMV	542
	PCCM	82
	Total Track machines	3298
Other track Related items	Long Rail Exchange (Unloading & Loading system)	12
	SPURT CAR	35
	Total	47

**Annexure-B****The Complement of Track Machines are as under:**

- (A)** For one work site of **Track renewal** Railway shall need to deploy the following set of track Machines
1. One (01) Track Renewal Train TRT or similar Track Machine of high output
  2. One (01) Ballast regulating machine (BRM)
  3. One (01) Work Site Tamper (WST)
  4. One (01) Dynamic Track Stabilizer (DTS)
- (B)** For one work site of **Ballast renewal** a railway shall need the following set of track machines
1. Two (02) Ballast Cleaning Machines BCMs or HoBCMs
  2. Muck Disposal Unit MDU (set of 4 to 6 units depending upon the duration of the block) and a dedicated locomotive to haul MDUs.
  3. One (01) Ballast regulating Machine BRMs
  4. One (01) Work Site Tamper WST
  5. One (01) Dynamic Track Stabilizer DTS
- (C) Planned Track Maintenance**
1. Rail Grinding  
1mainline RGM, 2 Switch rail Grinder, 1 Rail Inspection Vehicle RIV
  2. Track Tamping
    - a) High Output Tamping cum stabilization machine (HOTS-3X)
    - b) Point and Crossing Tamping with stabilization (PCT 4S with stabilizer)
  3. Shoulder Ballast cleaning
    - a) Shoulder Ballast Cleaning Machine SBCM
    - b) Muck Disposal Unit MDU(set of 4 to 6 units depending upon the duration of block) and a dedicated locomotive to haul MDUs.
    - c) Ballast regulating Machine BRM
- (D) Spot/urgent attention and MMU** works require the following set of track machines
- a) Rail Borne Maintenance Vehicle (RBMV)
  - b) Utility Vehicle (UTV)
  - c) Multi-Purpose Tamper (MPT)
  - d) Point and Crossing Changing Machines (PCCM)

GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
(RAILWAY BOARD)

No. E(MPP)/2021/1/13

Dated: 19 .04.2022The General Managers  
All Zonal Railways/PUs  
The DG/RDSO/NAIR/CTIs

Sub: Redistribution of Non-Gazetted posts.

Ref: Board's letter no. E(MPP)2021/1/13 dtd. 25/03/2021 and 14/01/2022.

Vide Board's letter of even number dated 25.03.2021, GMs were advised to explore the possibilities of redistribution of posts at their end taking into account existing vacancies on the Railways, in terms of SOP 2018. This interim arrangement for redistribution of posts was made for a period of one year till 24/03/2022. Subsequently, vide Board's letter of even number dated 14.01.2022, this interim arrangement was extended for one more year beyond 24.03.2022.

2. In this regard, references have been received from a few Railways requesting for reconsidering the above instructions and removing restriction of time limit and also permitting redistribution across the grades.

3. The matter has accordingly been examined in Board's office and it has been decided that Railway may explore the possibilities of redistribution of posts at their end taking into account existing vacancies on the Railways, in terms of SOP 2018, superseding the instructions issued vide reference above.

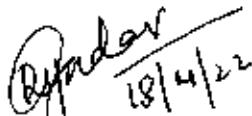
4. However, it is clarified that redistribution across the grades **has not been agreed** and redistribution of non-gazetted posts will be within the grade.

5. Further, such redistribution of posts may be exclusive of the posts that are required to be surrendered as per Railway Board's reference and MOU for surrender of posts and also reduction on account of Work Study reports, as stipulated in MOUs signed between Railways and Board.

6. This disposes of the issues raised in GM/WR D.O.letter No. WR-HQOESTT(HHRD)/49/2020 dt. 21/01/2022 & Finance/Creation/101 dt. 17/11/2021, GM/CR D.O. letter no. HPB/666/E/C/Creation of posts dtd. 25/01/2022, and PCPO/ECOR letter no. ECoR/Pers/07/NG40/H/CHC /CTI/18/651 dtd. 10/12/2021.

7. This is issued with the approval of Board (CRB & MF).

Please acknowledge receipt.

  
(Renu Yadav)  
Director/MPP

Copy forwarded for information to:

1. PFAs, All Indian Railways and Production Units, DG/RDSO, DG/NAIR & CTIs.
2. The Dy. Comptroller & Auditor General of India (Railways), Room No.224, Rail Bhawan, New Delhi.

  
18.4.2022  
For Member Finance /Railways

No. E(MPP)/2021/1/13

Dated: 19.04.2022

**Copy to:**

1. The General Secretary, NFIR, 3 Chelmsford Road, New Delhi for information (Copy may be downloaded from E(MPP) Training Circulars/Railnet/Internet).
2. The General Secretary, AIRF, 4 State Entry Road, New Delhi for information (Copy may be downloaded from E(MPP) Training Circulars/Railnet/Internet).
3. The Secretary General, FROA, R.No.256-A, Rail Bhavan, New Delhi for information (Copy may be downloaded from E(MPP) Training Circulars/Railnet/Internet).
4. The Secretary General, IRPOF, R.No.268, Rail Bhavan, New Delhi for information (Copy may be downloaded from E(MPP) Training Circulars/Railnet/Internet).
5. All Members, Department Council & Secretary Staff side National Council 13-C, Ferozeshah Road, New Delhi (Copy may be downloaded from E(MPP) Training Circulars/Railnet/Internet).
6. The Secretary General, AIRPF Association, Room No.256-D, Rail Bhavan, New Delhi (Copy may be downloaded from E(MPP) Training Circulars/Railnet/Internet).
7. General Secretary, All India SC & ST Railway Employees Association, 171/B-3, Basant Lane Railway Colony, New Delhi (Copy may be downloaded from E(MPP) Training Circulars/Railnet/Internet).



**For Secretary/Railway Board**