



RESEARCH DESIGN AND STANDARD ORGANISATION
Manak Nagar, Lucknow-226011

TM-WI-7.5.2-5
Work Instruction of Track Monitoring by Track Recording Car

1.0 Amendment History

S. No.	Date of Amendment	Version	Reasons for amendment
1.	01/08/2018	1.0	First Issue under new documentation system for ISO 9001:2015.
2.	01/11/2019	1.1	Changes in para 4.1 as per ACS-149 of IRPWM.

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2.0 Purpose

- Compliance to provisions of IRPWM regarding track monitoring by Track Recording Cars.
- Assessment of track health and maintenance requirements and provision of same to Railway Board and Zonal Railways.

3.0 Scope of Application

3.1 Scope of this title is limited to procedure of planning and running of track recording cars, calibration and preventive maintenance of track recording cars and analysis of recorded data for assessment of maintenance requirement.

4.0 Procedure/Details

4.1 Frequency of recording, as per para 606 of IRPWM is as under:

The Board Gauge routes should be monitored by TRC as per the following frequencies (except for the routes where track recording is to be dispensed with):-

(i)	Routes with existing speeds above 130 kmph	- once in 2 months.
(ii)	Routes with existing speed 110 kmph and up to 130 kmph	- once in 3 months.
(iii)	Routes with existing speed 100 kmph and up to 110 kmph	- once in 4 months.
(iv)	Routes with existing speeds upto 100 kmph.	- once in 6 months.

4.2 Preparation and issue of track recording programme

4.2.1 TRC/HQ unit is responsible for preparation of annual master chart. Master chart should be ready by 15th of February for the next financial year. The Master Chart shall be got approved from Executive Director/TM. Copies of master chart should be circulated to all concerned Assistant Research Engineers, Dy. Directors, Jt. Directors/Directors of TMM Directorate of RDSO, Zonal Railways and Railway Board by 28th February.

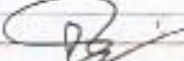
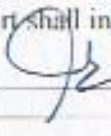
4.2.2 SSE/SSRE in charge of TRCs are responsible for preparing TRCs recording program, as per master chart. TRC programs should be issued at least four weeks in advance and sent to CTEs and COMs of all Concerning Zonal Railways, however programs for urgent recordings and in emergency due to system failure/maintenance can be issued at shorter notice.

4.2.3 AREs/DDs of respective TRCs are responsible for timely issue of TRC Program prepared and put up by the SSE/SSRE in charge of the TRC.



4.3 Post recording activities

4.3.1 Track Recording Report

At the end of each month's recording a consolidated report of following track recording activities in prescribed Performa to be prepared by SSE/SSRE in charge of TRCs. The track recording report shall include following

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- Details of recording
 - Details of non recording length
 - Details of recorded data
 - A detailed note indicating information, observations requirements of next recording and maintenance/ repairs requirements etc.
- 4.3.2 On arrival of TRC at HQ SSE/SSRE in charge of TRCs will submit Track recording report (in two copies), one copy of Summary Report Category of Track Recording results and recorded data in CDs to JD/Dir of HQ unit within the 03 working days of arrival of TRC, for analysis of data through their Director.
- 4.3.4 On arrival of Track recording cars at the Head Quarter, DD/ARE of concerned TRC along with ARE/Instt, will inspect the Track recording car, measuring frame/sensor beam, track geometry recording system in details and prepare a joint report in prescribed Performa and submit the same to concerned JD/Dir within five days of arrival of TRC. In absence of ARE/Instt, SSRE/Instt.of UG will inspect the TRC along with DD/ARE of concerned TRCs. All necessary repairs are to be insured before next recording.
- 4.4 Analysis of recorded data**
- 4.4.1 Analysis is to be completed within 5 working days of submission of ARE report along with recorded data on magnetic media to HQ unit
- 4.4.2 Analyzed data, Track recording report and joint inspection report is to be discussed with concerned Director jointly by DD/ARE of concerned TRC and ARE/Instt (SSRE/Instt in absence of ARE/Instt.) to decide further course of action. In absence of ARE/Instt, SSRE/Instt.of UG will inspect the TRC along with DD/ARE of concerned TRCs
- 4.4.3 After finalization, report is to be given to JD/Dir HQ for preparing detailed report of all TRCs. Consolidated Progress report of all TRCs is to be sent to Railway Board and concerning zonal railways within 10 working days of receiving of all TRC data and ARE report.
- 4.5 Calibration**
- Detailed calibration procedure as given in the respective calibration manual of the TRC is to referred and followed. DD/ARE of concerned TRC and ARE /Instt. (SSRE/Instt in absence of ARE/Instt.), to ensure this before movement of TRC for next recording
- 4.6 More than 10 percentage of non-recording of planned route due to non-availability of path and slow speed is to be brought to the notice of COM., CSO and CTE of the concerned Railways for taking corrective & preventive action. Copies of such communication are to be forwarded to Railway Board for information. JD/Dir HQ will put up to a draft letter to ED/TM in this regard within 10 working days of arrival of TRC at HQ.
- 4.7 A statement regarding officers not accompanying TRC during recording run as per schedule laid down by the Railways Board vide letter No. 90/Track-111/TK/72

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Dt 09.07.1990 is to be prepared and send to CTE of concerning Railway within 10 working days of arrival of TRC at HQ. JD/Dir HQ will put up to a draft letter to ED/TM in this regard within 10 working days of arrival of TRC at HQ.

4.8 Maintenance of Track Recording Cars

4.8.1 Spares and consumable of TRCs

Consolidated requirement of yearly consumable and spares of all TRC is to be assessed jointly by ARE/InstL (SSRE/InstL in absence of ARE/InstL) and DD/ARE of concerned TRCs at the beginning of financial year for sanctioning of competent authority and ensure procurement after that.

4.8.2 POH and scheduled maintenance of TRCs coaches

SSE/SSRE in-charge of TRCs should ensure that TRCs are booked to sick line/workshop for scheduled maintenance and POH in time.

4.8.3 Maintenance of generators and air conditioners

For optimum productivity, functioning of generators, standby generators and air conditioners etc. is to be ensured. SSE/Mech. is responsible for maintenance of all generators and Air conditioners of all TRCs. JE/Mech/TRC will assist SSE/Mech. to ensure timely maintenance of DG set and air conditioners.

5.0 Reference Documents

None

6.0 Reference Documents of External Origin

National/International Standards & specifications, all manuals & IR codes issued by Railway Board

7.0 Associated Records


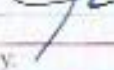
None

8.0 Responsibility & Authority

Activity	Responsible	Approver	Supporting	Consulted	Informed
Creation, maintenance of this document	DTM-IV	EDTM	Staff of TRC		All concerned officer through intranet
Compliance of directives	DTM-IV	EDTM	Staff of TRC		
Requirement of deviation from directive	EDTM	DG	DTM-IV	MR/ISO Cell	

9.0 Abbreviations

None

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