

भारत सरकार Government Of India रेल मंत्रालय Ministry Of Railways रेलवे बोर्ड Railway Board

No. 2018/CEDO/SR/PC-6/0

Delhi, dated 28.09.2021

General Managers All Zonal Railways **Chief Commissioner of Railway Safety DRM Office Campus, Lucknow**

Sub: Addendum and Corrigendum Slip (ACS) No. 2 to Policy Circular No. 6
Ref: Railway Board Letter No. 2018/CEDO/SR/PC-6, dated 31.10.2018 & 12.10.2020

- 1. The Policy Circular No. 6 deals with procedure for certification of maximum permissible speed for rolling stock and introduction of trains at different speeds.
- 2. The existing Policy Circular No. 6 was issued vide Letter No. 2018/CEDO/SR/PC-6/0, dated 31.10.2018 and subsequently Addendum and Corrigendum Slip (ACS) No. 1 to Policy Circular No. 6 was issued vide Letter of even No. dated 12.10.2020.
- 3. Board have approved that the Para 6, Appendix-1 and Annexure A of Policy Circular No. 6 be amended, as shown in the enclosed Addendum & Corrigendum Slip (ACS) No. 02.

Enclosure: ACS No. 02 (Total 7 pages)

रिक्टा Sagar 28.09.21 (प्रेम सागर गुप्ता)

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Copy to:

1. DG/RDSO, Lucknow for information and necessary action

2. Commissioners of Railway Safety, All Circles, for information and necessary action

3. PSO to Chairman & Chief Executive Officer(CEO), Railway Board, Member (Infrastructure), Member (Traction & Rolling Stock), Member (Finance) for kind information of Chairman & Chief Executive Officer(CEO), Railway Board, Member (Infrastructure), Member (Traction & Rolling Stock), Member (Finance)

Addendum & Corrigendum Slip (ACS) No. 02

To

Policy Circular No. 6

6. Introduction of Passenger Trains on Specific Route

6.1. General Principles

- 6.1.1. Train for introduction in a section shall consist of only coaches, locomotive/s and train sets including EMU/MEMU/DEMU etc., which have approvals of the Central Govt. (Railway Board) for running at proposed maximum speed of train or higher, as per 'The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time'.
- 6.1.2. Trains will be introduced in the sections at speeds as per provision of General Rules 1976 Rule 4.08 1(a).
- 6.1.3. Irrespective of speed of train, introduction of a passenger train having 24 coaches or more plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make), or, 22 coaches or more plus one inspection carriage (LHB or other types)/other non-passenger carrying coach (LHB or other types), in a section, shall require prior approval of General Manager. The General Manager shall ensure availability of full train length of Examination Pits at terminal stations of the train, full length of Platforms with adequate lighting arrangement at the stopping stations, and en-route coach watering facility for full length of train, before introduction of train.

Provided further, introduction of subsequent trains with same or less number of coaches, having same terminal stations and stopping stations, shall not require approval of General Manager.

- 6.1.4. Length of any passenger train shall not be increased beyond 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make), or 24 coaches plus one inspection carriage (LHB type))/other non-passenger carrying coach (LHB or other types) in any case without prior approval of Central Govt. (Railway Board).
- 6.2. For speed up to & including 110 km/hr on BG, upto & including 75 km/hr on MG
- **6.2.1.** Trains can be introduced by zonal railway following general principles given in para 6.1 above.
- 6.3. Deleted
- 6.3.1. Deleted
- 6.4. For speed above 110 kmph and up to & including 120 kmph on BG
- 6.4.1. For such trains, zonal railway shall carry out the "Route Proving Run" with representative coaches of all types and locomotive to be included in the train to be introduced, for recording vertical and transverse accelerations throughout the route. In such route proving run, total representative coaches should preferably be 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types), but not less than 18 representative coaches in any case.
- 6.4.1.1. For conducting route proving run, JSC shall be signed by Principal Chief Engineer, Principal Chief Mechanical Engineer, Principal Chief Operating Manager and Principal Chief Signal & Telecom Engineer and also by Principal Chief Electrical Engineer (in electrified territories and in respect of locomotive).

- 6.4.1.2. For conducting route proving run, personal approval of Principal Chief Engineer shall be taken, who shall grant the same after ensuring that the track is being maintained as per standards specified in Indian Railway P. Way Manual.
- **6.4.1.3.** The route proving run shall be required even for rolling stock for which detailed Oscillation Trials had been dispensed with earlier.
- 6.4.1.4. During route proving run, the train should run at maximum permissible speed for atleast 50% of the route (excluding all permanent speed restrictions and their acceleration/deceleration zones) to have meaningful evaluation of results. Results obtained during the route proving run should satisfy the stipulated criteria as given in Appedix-1. In case 50% route (excluding all permanent speed restrictions and their acceleration/deceleration zones) is not covered with maximum permissible speed, route proving run should invariably be repeated.
- **6.4.1.5.**The Commissioner of Railway safety shall be kept advised of the programme for conducting route proving run along with all relevant details including copy of Principal Chief Engineer sanction, by Zonal Railway, to enable him to witness the tests, if he so desires.
- **6.4.2.** Subject to compliance of para 6.1 and 6.4.1 & its sub paras above, Principal Chief Engineer shall permit operation of first train on that route with or without any stipulations. This power shall not be delegated by Principal Chief Engineer further. The proforma on which sanction shall be given shall be on same lines as placed at Annexure F.
- 6.4.3. Introduction of all subsequent trains or increase in speed of existing trains or increase in length of existing trains [up to 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make), or 24 coaches plus one inspection carriage (LHB & other types)/other non-passenger carrying coach (LHB or other types)], having same type of coaches and locomotive for which route proving run has been successfully carried out (either in one route proving run or in different route proving runs), shall also require approval of Principal Chief Engineer (not to be delegated further), but, there is no need to repeat route proving run and signing of JSC again.

6.5. For speed above 120 kmph and upto & including 130 kmph on BG

- 6.5.1. For such trains, RDSO shall carry out Confirmatory Oscillograph Car Run (COCR) with instrumented locomotive and instrumented representative coaches of all types to be included in the train to be introduced, for recording vertical and transverse accelerations throughout the route. In such COCR, total representative coaches should preferably be 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types). In case COCR is carried out with less than above number of coaches, the train can be introduced / length of existing trains can be increased maximum up to 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make), or 24 coaches plus one inspection carriage (LHB & other types)/other non-passenger carrying coach (LHB or other types), in increment of not more than 2-3 coaches, at a time with the prior personal approval of GM.
- 6.5.1.1. For conducting COCR, JSC shall be signed by Principal Chief Engineer, Principal Chief Mechanical Engineer, Principal Chief Operating Manager and Principal Chief Signal & Telecom Engineer and also by Principal Chief Electrical Engineer (in electrified territories and in respect of locomotive). Principal Chief Engineer shall also ensure that the track is being maintained as per standards specified in Indian Railway P. Way Manual.
- 6.5.1.2. For conducting COCR, personal approval of General Manager shall be taken.

- 6.5.1.3. The Route Proving Run as per para 6.4.1.1 & 6.4.1.4, with the approval of GM, in place of COCR, can be resorted to for rolling stock for which detailed Oscillation Trials had been dispensed with earlier. Similarly, Route Proving Run as per para 6.4.1.1 & 6.4.1.4, with the approval of GM, in place of COCR, can be resorted to for new/existing locomotive or new/existing coaches, for which COCR has not been carried out earlier in the section, where, however, the train/s is/are already running at a speed above 120 kmph.
- 6.5.1.4. During COCR, the train should run at maximum permissible speed for atleast 50% of the route (excluding all permanent speed restrictions and their acceleration/deceleration zones) to have meaningful evaluation of results. Results obtained during the COCR shall be analyzed by RDSO and speed certificate issued with or without any stipulations. In case 50% route (excluding all permanent speed restrictions and their acceleration/deceleration zones) is not covered with maximum permissible speed, COCR should invariably be repeated.
- 6.5.1.5. The Commissioner of Railway safety shall be kept advised of the programme for conducting COCR/Route Proving Run along with all relevant details including copy of GM sanction, by Zonal Railway, to enable him to witness the tests, if he so desires.
- 6.5.1.6.RDSO shall issue speed certificate based on the results obtained in COCR.
- 6.5.2. Subject to compliance of para 6.1 and 6.5.1& its sub paras above, General Manager shall permit operation of first train on that route with or without any stipulations. This power shall not be delegated by General Manager further. The Proforma on which sanction shall be given shall be on same lines as placed at Annexure F.
- 6.5.3. Introduction of all subsequent trains or increase in speed of existing trains or increase in length of existing trains [up to 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make) or 24 coaches plus one inspection carriage (LHB & other types)/other non-passenger carrying coach (LHB or other types), subject to maximum length of train as per para 6.5.1 above], having same type of coaches and locomotive for which COCR/Route Proving Run (RPR) as the case may be, has been successfully carried out (either in one COCR/RPR or in different COCRs/RPRs), shall also require approval of GM (not to be delegated further), but, there is no need to repeat COCR/RPR and signing of JSC again.
- 6.6. For Speed above 130 kmph on B.G., above 75 kmph on M.G
- 6.6.1. For such trains, RDSO shall carry out COCR with instrumented locomotive and instrumented representative coaches of all types to be included in the train to be introduced, for recording vertical and transverse accelerations throughout the route. In such COCR, total representative coaches should preferably be 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types). In case COCR is carried out with less than above number of coaches, the train can be introduced / length of existing trains can be increased, up to that number of coaches only.
- 6.6.1.1. For conducting COCR, Joint Safety Certificate (JSC) shall be signed by Principal Chief Engineer, Principal Chief Mechanical Engineer, Principal Chief Operating Manager and Principal Chief Signal & Telecom Engineer and also by Principal Chief Electrical Engineer (in electrified territories and in respect of locomotive). Principal Chief Engineer shall also certify that the track is being maintained as per standards specified in Indian Railway P. Way Manual.
- 6.6.1.2. For conducting COCR, prior permission from CRS shall be taken.
- **6.6.1.3.**The COCR shall be required even for rolling stock for which detailed Oscillation Trials had been dispensed with earlier.

- 6.6.1.4. During COCR, the train should run at maximum permissible speed for atleast 50% of the route (excluding all permanent speed restrictions) to have meaningful evaluation of results. Results obtained during the COCR shall be analyzed by RDSO and speed certificate issued with or without any stipulations. In case 50% route (excluding all permanent speed restrictions and their acceleration/deceleration zones) is not covered with maximum permissible speed, COCR should invariably be repeated.
- 6.6.1.5. The Commissioner of Railway safety shall be kept advised of the programme for conducting COCR along with all relevant details including copy of CRS sanction, by Zonal Railway, to enable him to witness the tests, if he so desires.
- **6.6.1.6.**RDSO shall issue speed certificate based on the results obtained in COCR.
- 6.6.2. Subject to compliance of para 6.1 and 6.6.1 & its sub paras above, General Manager shall approach Central Govt. (Railway Board) through CRS and CCRS for permitting operation of first train on that route. The CRS recommendation shall be on proforma placed at Annexure E.
- 6.6.3. For, up to speed of first train as mentioned in para 6.6.2 above, introduction of all subsequent trains or increase in speed of existing trains or increase in length of existing trains [up to 26 coaches plus one inspection carriage (ICF make)/other non-passenger carrying coach (ICF make) or 24 coaches plus one inspection carriage (LHB & other types)/other non-passenger carrying coach (LHB or other types), subject to maximum length of train as per para 6.6.1 above], even if having same type of coaches and locomotive with which COCR has been successfully carried out (either in one COCR or in different COCRs), railway shall approach Commissioner of Railway Safety for permission. However, there is no need to repeat COCR and signing of JSC again.

Prem Sagars 28.09.21

Guidelines for Route Proving Runs for Speed above 110 kmph and upto & including 120 kmph on BG by Zonal Railways

1. Introduction

Zonal Railways shall conduct Route Proving Runs for speeds above 110 kmph and upto 120 kmph on BG, with the help of portable accelerometers (such as OMS-2000). Following guidelines are to be observed while conducting these runs:

2. Requirements

- 2.1 Track: The track on the route should be maintained to standards specified in Indian Railway P.Way Manual. Acceleration in two directions lateral & vertical shall be recorded by portable accelerometers and action taken to attend track accordingly as per provision of Indian Railway P.Way Manual in case of any deficiency.
- 2.2 Rolling Stock: The proposed Diesel/Electric Loco, Coach to be run should be cleared for operation at proposed or higher speed.
- 2.3 Portable accelerometer shall be placed as near as possible to the leading pivot in case of locomotive. In other representative rolling stock, the Portable Accelerometer would be placed as near as possible to the pivot of the trailing bogie.
 - In case of diesel locomotive, the short-hood shall be kept in leading position.
- 2.4 The wheels of the loco and coaches used should have only normal wear.
- 2.5 Portable accelerometer shall have arrangements for recording the acceleration in two directions, i.e. vertical and lateral, in working order.
- 2.6 Instructions regarding Operation and calibration of the equipments are available in the report titled, "Specification and Manual for Calibration of OMS-2000" issued by RDSO under covering letter no. RT/UGTRC/OMS/General, dated 31.5.1994.

3. Criteria for Clearing the Route

- 3.1 Vertical and lateral accelerometer records, obtained by portable accelerometer, shall be closely analysed. Acceleration peaks observed in the cab of loco at the proposed speed should be counted.
- Following criteria shall be used for clearing the route for operation at the proposed speed.

For Coaches: The average number of peaks of vertical and lateral accelerations exceeding 0.20g should be limited to 0.25 peaks/km (total no. of vertical and lateral peaks/recorded km) for each representative coach. However, the number of peaks in any kilometer shall not exceed 1, and where this value is exceeded, the track shall need attention.

In case the limit of 0.25 peak/km exceeds, the route proving run of the representative coach(es) for which the limit has been exceeded, would be repeated.

At location, where the peaks of lateral and vertical accelerations exceed the Urgent Maintenance Limits stipulated in IRPWM, the track shall have to be attended urgently.

For Locomotives: The average number of peaks of vertical and lateral accelerations exceeding 0.30g should be limited to 0.25 peaks/km (total no. of vertical and lateral peaks/recorded km) for each loco. However, the number of peaks in any kilometre shall not exceed 1, and where this value is exceeded, the track shall need attention.

In case the limit of 0.25 peak/km exceeds, the route proving run of the loco(s) for which the limit has been exceeded, would be repeated.

At location, where the peaks of lateral and vertical accelerations exceed 0.35g, the track shall have to be attended to urgently.

3.3 Route Proving Run Report should also cover presence/absence of resonance tendency on bridges falling on the route.

28.09.21

Track Certificate (To accompany application)

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