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

No. 2018/CEDO/SR/PC-6/0 **Delhi, dated 31.10.2018**

General Managers
All Zonal Railways

Chief Commissioner of Railway Safety
DRM Office Campus, Lucknow

Sub: Policy Circular No. 6

Ref: (i) Railway Board Letter No. 92/CEDO/SR/4/0 Pt., dated 23.12.1999
(ii) RB letter No. 92/CEDO/SR/4/0/Pt.I, dated 23.11.2006
(iii) RB letter No. 92/CEDO/SR/4/0/Pt.I, dated 09.07.2010
(iv) RB letter No. 2013/CEDO/SR/06/PC-6/0/Pt. I, dated 05.01.2016

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. 92/CEDO/SR/4/0 Pt., dated 23.12.1999. Subsequently, the same was amended vide Letter No. 92/CEDO/SR/4/0/Pt.I, dated 23.11.2006 & 09.07.2010 and again vide letter No. 2013/CEDO/SR/06/PC-6/0/Pt. I, dated 05.01.2016.
3. The issue of revision of revision of Policy Circular No. 6 was under consideration in Board's office for a long time.
4. With an objective to rationalize introduction of passenger trains at different speeds on various sections of Indian Railway, Policy Circular No. 6 has been reviewed by Board (MTR, MRS, MT, ME).
5. In supersession of existing Policy Circular No. 6 & its amendments issued vide letters under reference (i) to (iv), Board has approved the revised Policy Circular No. 6 on 'Procedure for certification of maximum permissible speed for rolling stock and introduction of trains at different speeds', as enclosed for compliance by all concerned.

DA: As above (total 22 pages)

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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 CRB, ME, MT, MRS, MTR for kind information of CRB, ME, MT, MRS, MTR.

Procedure for Certification of Maximum Permissible Speed for Rolling Stock and Introduction of Trains at Different Speeds

Policy Circular No. 6

Ministry of Railways
(Railway Board)

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No. 2018/CEDO/SR/PC-6/0 Dated 31.10.2018

Policy Circular No. 6 (Revised 2018)

To lay down procedure for introduction / use of new locomotive or rolling stock, introduction of new trains, increase or decrease in speed of existing trains/ rolling stock etc., following directives are issued for compliance of all concerned: These directives shall be applicable to all locomotives or rolling stocks, other than pre-IRS stock and supersedes all previous instructions on the subject.

1. Authority for Introduction of New Locomotive or Rolling Stock

Central Govt. (Railway Board) is the final authority to introduce a new locomotive or rolling stock under Section 27 of "The Railways Act, 1989".

2. Use of Rolling Stock Already Sanctioned by Central Government (Railway Board) or Running on Any Section(s) of Railway

2.1. In the case of locomotive or rolling stock already sanctioned by Central Govt. (Railway Board) or running on any section(s) of any Railway, the same can be used over zonal railway with the approval of General Manager following the procedure given in The Railways (Opening for Public Carriage of Passengers),Rules, 2000 as amended from time to time. The Safety Certificates which should accompany Joint Safety Certificate (JSC) (Annexure D) are at Annexures A, B and C. The Proforma for sanction to be given by GM is at Annexure F.

3. Determination of Speed of New Design of a Locomotive or Rolling Stock

3.1. Determination of Provisional Speed

3.1.1. The provisional maximum permissible speed for new design of a locomotive or rolling stock will be determined and certified by Executive Director Standards (Motive Power)/ RDSO in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned Directorates, on the basis of design features & data and where appropriate, on comparison of the performance of similar designs of locomotives or rolling stocks already in service.

3.1.2. The provisional speed will normally be lower than the designed or projected service speed of the stock, and, shall not be more than the following :

- 80 km/hr for Broad Gauge passenger stock
- 65 km/hr for Broad Gauge goods stock
- 60 km/hr for Metre Gauge passenger stock
- 45 km/hr for Metre Gauge goods stock
- 35 km/hr for Narrow Gauge stock

3.1.3. However, in respect of such locomotive or rolling stock, which is not 'new' as defined in '*The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time*', provisional speed mentioned in para 3.1.2 above can be increased by Executive Director Standards (Motive Power)/ RDSO in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned Directorates, as under:

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- 105 km/hr for Broad Gauge passenger stock
- 75 km/hr for Broad Gauge goods stock
- 75 km/hr for Metre Gauge passenger stock
- 50 km/hr for Metre Gauge goods stock
- 40 km/hr for Narrow Gauge stock

The above speed limits can further be increased up to the same speed as that permitted for the stock already in service after one year by ED Standards/Motive Power/RDSO in consultation with ED Standards (Track), ED (B&S) and other concerned directorates, in case no adverse report on the running performance of locomotive or rolling stock, is received by RDSO.

3.1.4. The validity of provisional speed certificate shall be five years, except when it is superseded by final maximum permissible speed certificate.

3.2. Determination of Final Maximum Permissible Speed

3.2.1. The final maximum permissible speed for new design of a locomotive or rolling stock will be determined and certified by Executive Director Standards (Motive Power), RDSO in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned Directorates. In case of any dispute, the matter shall be referred to railway board for deliberations among concerned technical members and final orders.

3.2.2. The final maximum permissible speed of new design of a locomotive or rolling stock shall be determined after due consideration of the services to be performed, comparison with the similar stock already in service, and on the basis of detailed Oscillation Trials for assessing the riding quality and/or stability.

3.2.3. However, in respect of such locomotive or rolling stock, which is not 'new' as defined in *'The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time'*, detailed Oscillation Trials may be dispensed with by ED Standards (Motive Power) RDSO in consultation with ED Standards (Track), ED (B&S) and other concerned directorates. In case of difference of opinion, the matter shall be referred to the Central Govt. (Railway Board) for deliberations among concerned technical members and final decision.

3.2.4. The test stretches for conducting oscillation trials shall be advised by Executive Director Standards (Track Machines & Monitoring) as per stipulations of Standing Criteria Committee.

3.2.5. For carrying out tests on new locomotive or rolling stock, where speeds in excess of the provisional / proposed final maximum permissible speed will be attained, Executive Director Standards (Motive Power) shall determine in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structures), the increments of test speeds from the provisional / proposed final maximum permissible speed and also the maximum test speed, on the basis of the design features, data and other information furnished by the head of the Locomotive / Rolling Stock Design Directorate concerned and the particulars of track and bridges available in the section.

3.2.6. For conducting trial, on the advice of RDSO to test new locomotive or rolling stock, General Manager of the concerned railway shall allow conducting the trials on their system on the test section identified by RDSO, after obtaining permission from CRS in case trial is to be done on passenger running lines, and a Joint Safety Certificate duly signed by the Principal Chief Engineer, Principal Chief Mechanical Engineer, Principal Chief Operating Manager and Principal Chief Signal & Telecommunication Engineer *(Principal Chief Electrical Engineer also in case of locomotive or involvement of electrified section)*.

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3.2.7. Since, stipulations in the Speed Certificate issued by RDSO for conducting trials shall be about standard design/ structure of track and bridges, as such, if the conditions on the test section are different, the maximum speed which can be permitted over such stretches shall be determined by the Railway in consultation with RDSO, if so considered necessary.

3.2.8. The Commissioner of Railway safety shall be kept advised of the programme for detailed Oscillation Trials along with all relevant technical data including speed specified by RDSO for trials, copy of sanction letter issued by GM and other relevant details, by Zonal Railway, to enable him to witness the trials, if he so desires.

3.2.9. The detailed Oscillation Trials shall be conducted by Executive Director (Testing) in consultation with Executive Director Standards (Motive Power), Executive Director Standards (Track), Executive Director (Bridges & Structure) and the head of the concerned Locomotive/Rolling Stock Directorates.

3.2.10. The evaluation of detailed Oscillation Trials data shall be done by Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure), who can order re-trials and suggest modifications, if necessary. In the evaluation of the detailed Oscillation Trials data for riding stability, ED Standards (Motive Power) will be guided generally by the extant recommendations of the Standing Criteria Committee.

3.2.11. GM sanction for such trials shall be valid for two years, after which it shall require revalidation by the General Manager on the advice of RDSO. With regard to a stock already operating on provisional speed certificate, while revalidating the permission for oscillation trial, any adverse performance or special observations made during service, if any, shall be commented upon.

3.3. Issuance of Speed Certificate

3.3.1. The Speed Certificates - both provisional and final for new design of a locomotive or rolling stock, shall be issued by Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structure) and other concerned directorates. In case of any dispute, the matter shall be referred to Central Govt. (Railway Board) for deliberations among concerned members and final decision.

3.3.2. The above certificate shall invariably indicate whether such locomotive may be used in multiple operations and if so, the maximum number of locomotives that may be coupled together as well as the special conditions, if any to be satisfied in regard to track and bridges, before permitting such operation.

3.3.3. If for the operation at the final maximum permissible speed, any improved standard of maintenance of rolling stock, track, bridges, signaling, OHE etc. is called for, the same shall be mentioned in the Speed Certificate.

3.4. Movement of a Newly Designed Locomotive or Rolling Stock

3.4.1. The maximum permissible speed for the limited purpose of movement of new design of locomotive or rolling stock from the manufacturer's works/docks to destination or to the testing point or from the destination/testing point back to manufacturer's works shall be determined and certified by Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track) and Executive Director (Bridges & Structures) and other concerned Directorates. The speed for this purpose shall not be higher than the provisional speed determined by RDSO.

3.4.2. The maximum permissible speed prescribed by the RDSO shall be subject to approval by the Principal Chief Engineer and Principal Chief Mechanical Engineer (*Principal Chief Electrical*

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Engineer also in case of locomotive or involvement of electrified section) of the concerned Zonal Railways in the form of JSC, who shall ensure that the track, bridges and OHE in the sections concerned are suitable for the new stock at the speed permitted. However, if a new rolling stock infringes the Indian Railway Schedule of Dimensions or axle loads are more than that permitted on the section; JSC duly signed by Principal Chief Engineer, Principal Chief Signal & Telecom Engineer and Principal Chief Mechanical Engineer (*Principal Chief Electrical Engineer also in case of locomotive or involvement of electrified section*) of the concerned Zonal Railways, should deal these issues and prior approval of GM shall be taken.

3.4.3. In such cases, Commissioner of Railway Safety shall be kept informed of the movement, but, no formal approval of the Commissioner of Railway Safety is essential. However, in case it becomes necessary to move the vehicle attached to a passenger carrying train, sanction of the Commissioner of Railway Safety shall be taken.

3.4.4. For each single movement of any other rolling stock not covered above, joint safety certificate shall be signed by Principal Chief Engineer, Principal Chief Mechanical Engineer, Principal Chief Operating Manager and Principal Chief Signal & Telecommunication Engineer *(Principal Chief Electrical Engineer also in case of locomotive or involvement of electrified section*) and submitted to CRS for his permission. CRS while permitting such movement may impose any special stipulations as deemed necessary for such movement.

4. Reducing the Speed of Existing Locomotive or Rolling Stock and Restoring the Same

4.1. In the event of adverse report on riding characteristics of stock already certified or on its adverse effects on track or bridges, the Zonal Railway Administration shall immediately impose a speed restriction under advice to RDSO and Commissioner of Railway Safety. Executive Director Standards (Motive Power) in consultation with Executive Director Standards (Track), Executive Director (Bridges & Structures) and the concerned Executive Directors shall further reduce the speed, if considered necessary for safe operation, pending further investigations.

4.2. Removal of the speed restriction and determination of the final maximum permissible speed shall be done by Executive Director Standards (Motive Power) on the basis of investigations, which may include detailed Oscillation Trials on the stock, as existing and as modified to improve its riding and stability characteristics. Executive Director Standards (Motive Power) shall then certify the final maximum permissible speed in consultation with Executive Director Standards (Track), Executive Director (Bridges & Structures) and other concerned Directorates.

4.3. Whenever the Commissioner of Railway Safety considers that the maximum permissible speed of a stock already certified requires restriction on any section or sections of the Railway, he shall immediately instruct the Railway Administration/s to impose the speed restriction and report the matter in detail to the Chief Commissioner of Railway Safety. The Railway(s) shall promptly act on the Commissioner of Railway Safety's instructions, pending review. Railway, in turn, shall also report the same to ED/Motive Power/RDSO.

4.4. RDSO shall seek the fresh approval of Central Govt. (Railway Board) for restoring the prescribed maximum permissible speed after giving effect to such modifications, as may be stipulated, following the same procedure as being followed for introduction of a new locomotive or rolling stock as per The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time.

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5. Increasing the Speed of Existing Locomotive or Rolling Stock by Making Improvements

5.1. Where trial fittings are introduced on existing stock or on stock obtained on a repeat order, with the prime objective of improving the riding characteristics, both at existing speeds and/or higher speeds and the locomotive or rolling stock is not covered in the definition of similar stock, the maximum permissible provisional/final speed of the stock concerned shall be decided following the same procedure as being followed for introduction of a new locomotive or rolling stock as per The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time.

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), or 22 coaches or more plus one inspection carriage (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), or 24 coaches plus one inspection carriage (LHB type) in any case without prior approval of Central Govt. (Railway Board).

6.2. For speed upto & including 105 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. For speed above 105 km/hr and upto & including 110 km/hr on BG,

6.3.1. Trains can be introduced by zonal railway following general principles given in para 6.1 above. Principal Chief Engineer shall permit the same after ensuring that the track on the route is being maintained as per Standards specified in RDSO Report No. C&M I, Vol I.

6.4. For speed above 110 kmph and upto & 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 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

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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 RDSO Report No. C&M I, Vol I.

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 temporary and permanent speed restrictions and their acceleration 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 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), or 24 coaches plus one inspection carriage (LHB & 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), or 24 coaches plus one inspection carriage (LHB & 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

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in respect of locomotive). Principal Chief Engineer shall also ensure that the track is being maintained as per standards specified in RDSO Report No. C&M I, Vol I.

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, shall be required even for rolling stock for which detailed Oscillation Trials had been dispensed with earlier.

6.5.1.4. During COCR, the train should run at maximum permissible speed for atleast 50% of the route (excluding all temporary and permanent speed restrictions and their acceleration 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 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) or 24 coaches plus one inspection carriage (LHB & 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 RDSO Report No. C&M I, Vol. I.

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.

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6.6.1.4. During COCR, the train should run at maximum permissible speed for atleast 50% of the route (excluding all temporary and 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 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) or 24 coaches plus one inspection carriage (LHB & 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.

7. Special Trials and Conditions of Operation

7.1. Sometimes trains have to be run under special conditions, which are not encountered in normal operation. Many a times, trials may be required to establish the feasibility of such operation. Such operation and trials shall be governed by the stipulations, as given in Appendix-2.

8. Maximum Speed for Trials

8.1. The maximum speed for different type of trials shall be as under:

(i) Detailed Oscillation Trials: 10% in excess of the proposed final maximum permissible speed, except on curves where it will be governed by the provisions of IR Permanent Way Manual.

(ii) Route Proving Runs: Same as the maximum permissible speed for the train.

(iii) Emergency Braking Distance, Rating and Performance, Coupler Force and Signal Interference trial: Same as the maximum permissible speed for the train.

(iv) The speeds mentioned above will have a tolerance of +5 kmph and -2 kmph.

9. New Rolling Stock

9.1. A new rolling stock in the context of this Circular would be as defined in The Railways (Opening for Public Carriage of Passengers), Rules, 2000 as amended from time to time. Decision in this regard shall be taken by the head of concerned Locomotive / Rolling Stock Directorate in consultation with Executive Director Standards (Motive Power), Executive Director Standards (Track) and Executive Director (Bridges & Structures). In taking such decision, the head of concerned Locomotive / Rolling Stock Directorate shall be guided by the criteria laid down for this purpose by RDSO's Standing Criteria Committee. In case of any

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difference of opinion, the matter shall be referred to Central Govt. (Railway Board) through CCRS for final decision.

10. In zonal railway, JSC shall be signed following Railway Board letter No. 2018/CEDO/SR/PC 6/JSC, dated 20.08.2018 as amended from time to time, copy placed as Annexure G.

11. In case of any dispute between zonal railway and CRS on any matter, the dispute shall be resolved following Railway Board instructions issued vide letter No. 70/WDO/ORI/1/Vol. V, dated 31.05.2018, copy placed as Annexure H.

Enclosure: **Appendices - 1 to 2 and Annexures – 'A' to 'H'**

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Appendix – 1

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 RDSO Report No. C&M I, Vol. I. Acceleration in two directions lateral & vertical shall be recorded by portable accelerometers every 6 weeks. Average peaks above 0.3g should be as per Para 3.1 below and action taken to attend to track accordingly, in case of any deficiencies.

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. Another accelerometer shall be placed as near as possible to the pivot of the trailing bogie of the rearmost coach.

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.

3.2 Following criteria shall be used for clearing the route for operation at the proposed speed. The average number of peaks of vertical and lateral accelerations exceeding 0.30g should be limited to 0.25 peaks/km. However, the number of peaks in any kilometre shall not exceed 1, and where this value is exceeded, the track shall need attention.

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

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Appendix – 2

Special Trials and Conditions of Operation

1. Heavy Haul and Running of Goods and Passenger Trains with Special Configuration on Specified Routes

For ascertaining suitability of such operation of goods and passenger trains, which is not very common, studies and trials may be necessary. On a reference from a Zonal Railway, RDSO shall examine and issue suitable guidelines for operation, based on the experience and results of trials undertaken elsewhere in the past. However when adequate data is not available and trial is considered necessary, speed certificate shall be issued for carrying out trials. GM shall permit such trials, but, CRS's approval for such trials is not necessary. After trials, a copy of the report and necessary guidance for operation shall be sent by RDSO to the Railway.

2. Emergency Braking Distance (EBD) Trials for New Type of Rolling Stock

Such trials may be necessary for heavy haul, goods and passenger trains with new type of locomotives and rolling stock. In every case of introduction of new rolling stock, a field trial shall always be carried out to arrive at the Emergency Braking Distance. In case of existing stock, a computer simulation shall normally be adequate for arriving at emergency braking distances. However, when the train speeds involved are above 130kmph for passenger, and above 80 kmph for goods trains, the results of computer simulation shall invariably be validated by actual field trials.

In case, actual trials are necessary, Speed Certificate shall be issued by RDSO. GM shall permit such trials, but, CRS approval is not required. CRS shall however be kept informed in advance about the programme for carrying out such trials in passenger running lines. Such trials shall not be required for each composition of rolling stock in train. Once adequate trials data is available, the same can be made use of for future references.

To avoid repetitive EBD trials, such trials should be carried out with 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types).

3. Coupler Force Trials

For heavy haul and long passenger trains, such trials may be necessary when there is a change in the mode of operation from the established pattern. GM shall permit such trials, but, CRS approval is not required. CRS shall however be kept informed in advance about the programme for carrying out such trials in passenger running lines.

To avoid repetitive Coupler Force trials, such trials should be carried out with 26 coaches plus one inspection carriage (ICF make), or 24 coaches plus one inspection carriage (LHB & other types).

4. Rating, Performance and Adhesion Trials

These trials are done for new locomotives and other motive power to establish its characteristics. Speeds, at which these trials are required to be conducted, are separately established by detailed oscillation trials. GM shall permit such trials, but, CRS's approval is not required for such trials.

5. Signal Interference Trials

These trails may be necessary while introducing new Electric Rolling Stock, which are likely to affect the signalling. Before permitting such Electric Rolling Stock in operation, if

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necessary, on account of introduction of new propulsion technology or on account of substantial increase in power rating of the rolling stock, harmonic levels shall be thoroughly examined and established by conducting trials upto maximum permissible rating of Electric Rolling Stock. GM shall permit such trials, but, CRS approval is not required for such trials.

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Annexure 'A'

Track Certificate

(To accompany application)

I do hereby certify that the track on section _____ (station _____ to station _____) from km _____ to km _____, the * weakest portion of which consists of ___ kg rails _____ metres long each with a maximum wear of _____% on _____ sleepers of density _____ and minimum depth of _____ mm ballast cushion below sleepers out of which _____ mm minimum of clean ballast exists under sleepers on consolidated and stable formation is to the required strength which can safely take _____ rolling stock (brief description) ** upto ____ tonnes axle load at a minimum speed of _____ kmph, subject to the local speed restrictions noted below –

SL	From Km	To Km	Between Stations	Nature of Speed Restriction	Brief Reasons For Restrictions

Dy.Chief Engineer (Track)

Countersigned by:

Chief Engineer / Chief Track Engineer

Note

* The weakest portion on which no speed restriction has been imposed only needs to be given.

** The maximum number of locomotives proposed to be coupled together for multiple operations shall be specifically mentioned.

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Annexure 'B'

Bridge Certificate

(To accompany application)

1. Certified that the bridges on Section (station) _____ to _____ (station) from km _____ to km _____, the minimum strength of superstructure being _____% of RBG/MG, ML standard as per Bridge Rules 1941/1964 revised, corrected upto and inclusive of _____ Correction Slip No. _____, dated _____ are safe to carry _____ (Rolling stock) not exceeding _____ units (in the case of locomotive) coupled together, at a maximum speed of _____ kmph, subject to the following restriction: ,

SL	Bridge No.	Location Km	Spans & Description	Nature of Restriction	Brief Reasons

2. Sub-structures of all the bridges are in satisfactory condition and safe to carry the above rolling stock at the speed proposed, conforming to the provisions of the IRS Sub-structure Code ____, corrected upto Correction Slip No. _____, except those that are weak and distressed which will be kept under observation with adequate speed restrictions on the same as follows:

SL	Bridge No.	Location Km	Spans & Description	Nature of Restriction	Brief Reasons

Dy.Chief Engineer (Bridge Design)

Countersigned by:

Chief Engineer / Chief Bridge Engineer

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Annexure 'C'

OHE Certificate

Certified that the Overhead Equipment on the section (station) _____ to _____ (station) from _____ km to _____ km is provided with swiveling type of cantilever assembly, having the tension of _____ kgf / _____ kgf in contact wire / catenary wire regulated automatically/unregulated with a pre-sag of _____ mm for a span of 72m and proportionately less for smaller spans. Gap between registration tube and contact plane is _____ mm.

This OHE is safe to run _____ (rolling stock) with _____ maximum number of _____ current collecting pantographs on head of the train, at a maximum speed of _____ kmph, subject to following restrictions * :

SL	Station		Kms		Nature of Restriction	Brief Reason
	From	To	From	To		

CEDE

Note:

1. '*' Restrictions of permanent nature only to be given.
2. Number of current collecting pantographs on the head of the train to be restricted to ONE for high speed (more than 105 km/h) trains.

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Annexure 'D'

Joint Safety Certificate

Certified that it is safe to run _____ (particulars of locomotive or rolling stock proposed to run) not exceeding _____ units (in the case of locomotive) coupled together on the section _____(station) to _____ (station) from _____ (km) to _____ (km) of the _____ Railway at a maximum speed of _____ (km/h) against a maximum speed of _____ (km/h) certified by Research, Design and Standards Organisation, subject to the following speed restrictions and conditions:-

(a) Speed restrictions:-

Sl No.	From km to km	Nature of speed restriction	Brief Reason For Restriction

(b) Special Conditions:-

1.....
2.....
3.....
4.....

PCME **PCE**

PCEE **PCSTE** **PCOM**

Note: PCEE should sign:

(i) Wherever electric traction and/or movements on electrified sections is/are involved

(ii) Wherever Tower Wagons are involved.

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Annexure 'E'

From:

The Commissioner of Railway Safety,
_____,
_____.

To:

The Secretary (Works)
Railway Board,
Rail Bhawan,
New Delhi.

(Through The Chief Commissioner of Railway Safety)

Sub: _____

Ref: Application No. _____, dated _____ from _____ Railway with the _____ enclosures.

With reference to the application from _____ Railway cited above, I **recommend** that _____ (description of train) with maximum axle load of _____ tonnes and load density of _____ tonnes per metre run, not exceeding _____ (No. of coaches) on _____ sections of the said Railway may be sanctioned to run at a maximum speed of _____ kmph subject to the conditions laid down in the Joint Safety Certificate No. _____, dated _____ and local restrictions imposed from time to time and further subject to the following stipulations:

Stipulations

SL	Stipulation	Reasons

Commissioner of Railway Safety
_____,
_____.

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No. 2018/CEDO/SR/PC-6/0 Dated 31.10.2018

Annexure 'F'

No,.....

SANCTION LETTER FOR RUNNING OF LOCOMOTIVE OR ROLLING STOCK

Sub: _____

Ref: Application No. _____, dated _____ from _____ Railway with the _____ enclosures.

Sanction is hereby accorded to the running of _____ (description of locomotive or rolling stock) to Sketch No. _____ with a maximum axle load of _____ tonnes and load density of _____ tonnes per metre run, not exceeding _____ units (in the case of locomotives) coupled together on _____ section of _____ Railway at a maximum speed of _____ kmph, subject to the conditions laid down in the Joint Safety Certificate No. _____, dated _____ and local restrictions imposed from time to time and further subject to the following stipulations:

Stipulations

SL	Stipulation	Reasons

General Manager

_____,

_____.

Copy for kind information & n. a. to:

1. CCRS
2. CRS(.....circle)
3. DG/RDSO
4. EDCE/G/Rly Board
5. All PHODs of concerned Railway
6. CSO of concerned Railway
7. CBE of concerned Railway

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Annexure. 6

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

No. 2018/CEDO/SR/PC 6/JSC **Delhi, dated 20.08.2018**

General Managers
All Indian Railways

Sub: Joint Safety Certificate (JSC)

(1) Joint Safety Certificate (JSC) is to be signed by PHODs of Zonal Railway before introduction of any rolling stock over a section, carrying out oscillation trials of vehicles, carrying out 'route proving run' or 'confirmatory oscillograph car run (COCR)'.

(2) Many a times, it is noticed that issuance of JSC takes considerable time and file remains shuttling among various departments. To ensure expeditious issuance of JSC, the following procedure may therefore be followed for issuance of JSC:

i. The HOD concerned with the issue i.e., for elect. loco trials-CELE, for COCR-CRSE etc. shall be the coordinator for the issuance of JSC.
ii. The concerned HOD shall issue self contained note to CTE, CBE, CEDE etc. for issuance of required safety certificates like Track Certificate, Bridge Certificate, OHE Certificate etc. The respective HODs shall submit the required certificate to concerned HOD in not more than 10 days from the receipt of note.
iii. JSC shall then be signed in a joint meeting to be called by concerned PHOD.

(3) The JSC should normally be issued in maximum 15 days from the date of receipt of reference from RDSO/ initiation of process.

(4) All correspondence with CRS shall however be done through CBE of zonal railway.

(5) This is issued with the approval of Board (ME, CRB)

(प्रेम सागर गुप्ता)
कार्यकारी निदेशक/ सिविल इंजी(जी)/ रेलवे बोर्ड
[Phone: 011-23383379; Rly no. 44803]

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Annexure H

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
(रेलवे बोर्ड) (Railway Board)

No. 70/WDO/ORI/1/Vol. V **Date: 31.05.2018**

General Manager,
All Indian Railways

The Chief Commissioner of Railway Safety,
Office Compound of DRM/NER,
Ashok Marg, Lucknow.

Sub: - Commission for Railway Safety
-Procedure to Deal with Difference of Opinion between Railway Administration and CRS for Opening of New Railway or Work or Condonation of Infringements to IRSOD for structures

1. Commissioner of Railway safety (CRS) is empowered for 'opening of a new railway or work' on the request of Zonal Railway. However, many a times, it has been noticed that in a case where there is difference of opinion between Zonal Railway and CRS, prolonged correspondence takes place between them extending even for years together in resolving the issue.

2. The prolonged correspondence in decision making results in avoidable delay in opening of new lines or works on Indian Railways. To expedite the process of decision making in such cases, following procedure proposed by Ministry of Railways has been agreed by Ministry of Civil Aviation:

"All cases of opening of a railway or a work or condonation of infringements to IRSOD for structures, where there is difference of opinion between zonal railway and CRS and issue is not getting resolved in a reasonable time, CRS at his own or on the request of Railway Administration (as defined in "The Railways Act, 1989") refer the case to Chief Commissioner of Railway Safety (CCRS) within 15 days of receipt of such request from Railway Administration, for resolving the issue. In case such reference on the request of Railway Administration is not made by CRS to CCRS, the Railway Administration can make suitable reference to CCRS directly with a copy of such reference to concerned CRS and Central Govt. (Railway Board).

CCRS shall communicate his opinion to CRS and Railway Administration concerned, which shall be taken as the opinion of the Commission for Railway Safety. The cases where CCRS does not agree with Railway Administration, the CCRS shall submit the report with his opinion to Central Govt., for decision of the Central Govt. as per Section 22(2) and 22(3) of "The Railways Act, 1989."

3. Further, as suggested by Ministry of Civil Aviation, in order to resolve various interface issues between Zonal Railway and CRS, General Manager shall hold a meeting with CRS bimonthly.

4. This is issued with the approval of CRB.

Prem Sagar
31.05.18
(प्रेम सागर गुप्ता)
कार्यकारी निदेशक/ सिविल इंजी./ रेलवे बोर्ड
[Rly No. 44803, MTNL 011-23383379]

Copy forwarded for kind information to:
(i) Jt. Secy. (RA), Ministry of Civil Aviation, Rajiv Gandhi Bhawan, New Delhi 110003, in reference to Secretary, MoCA DO No. A.60015/101/2018-CRS, dated 24.05.2018.
(ii) Director General/ RDSO, Manak Nagar, Lucknow
(iii) Commissioner of Railway Safety, All Circles

Prem Sagar
31.05.18
कार्यकारी निदेशक/ सिविल इंजी./ रेलवे बोर्ड

Prem Sagar
31.10.18