

3/11/12

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

No. 2012/CE-II/CS/2

New Delhi, dt. 16.11.2012.

The General Managers (Engg.)-CR, ER, ECR, ECoR, NR, NCR, NER, NFR, NWR, SR, SCR, SER, SECR, SWR, WR, WCR and Metro Railway/Kolkata.
The General Manager (Const.), N.F.Railway, Guwahati.

The CAO/Const. All Indian Railways.

FA & CAO, All Indian Railways.

The General Managers (Engg.) – ICF/Chennai, RCF/Kapurthla, DLW/Varanasi, CLW/Chittranjan, W&AP/Yelahanka, Bangalore & DMW/Patiala.

The Director General (Track), RDSO/Alambagh, Lucknow.
Chief Commissioner of Railway Safety, Lucknow.

Managing Director, IRCON, New Delhi.

Managing Director, RITES, New Delhi.

Managing Director, DMRC, N.B.C.C. Building, Pragati Vihar, New Delhi.

Managing Director, CONCOR, New Delhi.

Managing Director, RVNL, August Kranti Bhawan, Bhikaji Cama Place, New Delhi.

Managing Director, DFCCIL, Pragati Maidan, Metro station, New Delhi.

Managing Director, PIPAVAV Railway Corp. Ltd., 1st Floor Jeeven Tara Building, Gate No.4, Parliament Street, New Delhi.

Managing Director, MRVC, Church Gate station Building 2nd Floor, Mumbai – 400020.

Managing Director, RLDA, IRCON Office Compound, Next to Safdarjang Rly. station, Motibagh-I, New Delhi.

Managing Director, Konkan Railway Corporation Ltd, Belapur Bhawan, Sector-11, CBD Belapur. Mumbai. Pin - 400614.

The Chief Project Officer, DMRC, Pragati Vihar, New Delhi.

Director, IRICEN, Pune.

Director, IRIEEN, Nasik.

Director, IRISSET, Secunderabad.

Director, IRIMEE, Jamalpur.

Director, IRITM, Vill. Kanausi, Hardoi, Manik Nagar, Lucknow.

Director General, Railway Staff College, Vadodara.

Genl. Secretaries, AIRF, NFIR, IRPOF, FROA, AIRPFA, DAI (Railways) Rail Bhawan, New Delhi.

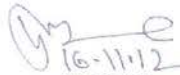
Sub: Advance Correction Slip No.130 to the Indian Railways Permanent Way Manual.

Ministry of Railways (Railway Board) have decided that correction/addition as indicated in the enclosed Advance Correction Slip No.130 dated 16.11.2012, to relevant para of the IRPWM, be made.

Receipt of this letter may please be acknowledged.

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Please issue
A. ak.
16/11/12


16-11-12
(P.K. Sharma)
Director Civil Engg.(P),
Railway Board.

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No. 2012/CE-II/CS/2

New Delhi, dt. 16.11.2012.

Copy to :

Sr. PPS/PS to CRB, ME, ML, MS, MM, MT, FC, Secretary.

AM(CE), AM(Works), AM(Budget), AM(Elect.), AM(Fin.), AM(Sig.), AM(Plg.), AM(Staff), AM(Mech.), AM(PU.), AM(Tele.), AM(Traffic), Adv./Project, Adviser(Bridges), Adv.Adv(Vig.), Adv(L&A), Adv(Safety), Adv(Project), AM(Stores), AM(IT), AM(T&C), Adv.(Rates), AM(Comml.).

EDCE(P), EDTK(M), EDTK(MC), EDTK(P), EDCE(G), EDCE(B&S)I, EDCE(B&S)II, ED(L&A)I, ED(L&A)II, ED(L&A)III, ED(Works), EDW(Plg.), EDV(E), ED(Project), ED(Safety), EDF(X)I, EDF(X)II.

DTK(MC), DTK(M), DTK(P), DCE(B&S), DCE(B&S)II, Dir(Works)-I, Dir(Works)-II, Dir.Works(Plg.), Dir(L&A), OSD(ME), DVE-I & DVE-II, Dir./TMS, IPWE(I).

INDIAN RAILWAYS PERMANENT WAY MANUAL
ADVANCE CORRECTION SLIP No. 130 dated 16.11.2012

The existing paras 244(4), 1001(6), 302(1) (b) (ii), 224 (2) (e) (v) and annexures-2/11 & 2/13 of para 263 of Indian Railways Permanent Way Manual shall be replaced with the following:-

Para 244 (4) Minimum Sleeper Density –

(a) Broad Gauge – The minimum sleeper density for all track renewals (complete track renewal and through sleeper renewal), doubling, gauge conversion, new line construction works for main lines may be 1660 nos. per km and for loop lines & sidings (permissible speed upto 50kmph) it may be 1540 nos. per km. For sidings with permissible speed more than 50kmph minimum sleeper density may be 1660 nos. per km.

(b) Meter Gauge – In the case of MG track renewals, the sleeper densities as recommended for various MG routes are given below –

Sleeper Density for MG

Route	Q	R1	R2	R3	S
Sleeper density	M+7	M+7	M+7	M+4	M+3

Note for BG & MG:-

- (i) Higher sleeper density may be provided with the approval of the Principal Chief Engineer.
- (ii) For existing LWR/CWR on main lines, loop lines and sidings, provisions of para 4.3.3 of LWR manual may be followed.
- (iii) In case of SWR, the minimum sleeper density is fixed as 1340 nos. per km.

Para 1001 (6) – Hot weather Patrolling for LWR/CWR – Hot weather patrol is carried out when the rail temperature exceeds-

- (i) $t_d + 25^\circ \text{C}$ on PSC sleeper track with sleeper density 1540 nos. per km and above.
- (ii) $t_d + 20^\circ \text{C}$ on PSC sleeper track with sleeper density less than 1540 nos. per km and track other than PSC sleeper.

The patrolling should be done in accordance with the provisions of Manual of Long Welded Rails.

Para 302(1) (b) (ii) : Wear due to corrosion - Corrosion beyond 1.5 mm in the web and foot may be taken as the criterion for wear due to corrosion. Existence of the localized corrosion such as corrosion pits, specially on the underside of the foot and liner biting etc. on rail foot, act as stress raisers for the origin of fatigue cracks and would necessitate renewals.

Para 224 (2) (e) (v) – While it is desirable to maintain correct gauge, it may not be possible to maintain correct gauge due to age and condition of the sleeper. It is good practice to work within the following tolerances of gauge, provided generally uniform gauge can be maintained over long lengths:

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Broad Gauge	
a) On straight	-6 mm to +6 mm
b) On curves with radius 440 m or more	-6 mm to +15 mm
c) On curves with radius less than 440 m	Upto +20 mm

Note: These tolerances are with respect to nominal gauge of 1676 mm.

Meter Gauge	
a) On straight	-3 mm to +6 mm
b) On curves with radius 290 m or more	-3 mm to +15 mm
c) On curves with radius less than 290 m	Upto +20 mm

Note: These tolerances are with respect to nominal gauge of 1000 mm.

Narrow Gauge	
a) On straight	-3 mm to +6 mm
b) On curves with radius 175 m or more	-3 mm to +15 mm
c) On curves with radius less than 175 m	Upto +20 mm

Note: The above tolerances are with respect to nominal gauge of 762 mm.

Para 263: In Annexure- 2/11 Para 263 of Indian Railways Permanent Way Manual, for cross slope of formation top, a **new item no. 8** shall be included under the column “remarks” of the table as stated under-

“Cross slope of 1 in 40 mentioned above is replaced with 1 in 30 for new construction works. However, existing formation need not be disturbed.”

In Annexure- 2/13 Para 263 of Indian Railways Permanent Way Manual, for cross slope of formation top, a **new item no. 5** shall be included under the column “remarks” of the table as stated under-

“Cross slope of 1 in 40 mentioned above is replaced with 1 in 30 for new construction works. However, existing formation need not be disturbed.”
