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

No. 2011/CE-II/CS/2 **New Delhi, dt. 5 .03.2012.**

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, 2nd Floor, Palika Bhawan, Sec.13, R.K. Puram, New Delhi.
Managing Director, PIPAVAV Railway Corp. Ltd., Ist 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, , IRISET, 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. 128 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.128 dated 05.03.2012, to relevant para of the IRPWM, be made.

Receipt of this letter may please be acknowledged.

05/03/12

(P.K. Sharma)
Director Civil Engg.(P),
Railway Board.

16/3

D/c
Please issue

C:\Users\Dell\Documents\sudhir\Correction slip\ACSNo.128 02.03.12 paras 234(5), 924 (b) etc 24.10.11.doc

16/3/12

No. 2011/CE-II/CS/2 **New Delhi, dt. 05.03.2012.**

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), 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), Dir(Works)-I, Dir(Works)-II, Dir. Works(Plg.), Dir(L&A), DCE(B&S), OSD(ME), DVE-I & DVE-II, Dir./TMS, JD(B&S), OSD/Project, IPWE(I),.

INDIAN RAILWAYS PERMANENT WAY MANUAL
ADVANCE CORRECTION SLIP No. 128 dated 05.03.2012

1.0 The existing para 234(5) of Indian Railways Permanent Way Manual shall be replaced with the following:-

Para 234(5) - (a) Work of lifting or lowering of track involved in conventional through packing and picking up slacks during regular track maintenance should be carried out under the supervision of Gangmate.

(b) Work of lifting or lowering of track upto 50mm done in other normal maintenance of track should be carried out under supervision of Permanent Way Mistry.

(c) Work of manual lifting or lowering of track beyond 50mm should be carried out under supervision of certified Permanent Way Mistry (Competency certificate should be issued by Chief Track Engineer).

(d) Work of mechanized lifting or lowering of track be carried out under supervision of Permanent Way Inspector.

Note – For LWR/CWR track, provisions given in Manual of Instructions on Long Welded Rails shall be followed.

2.0 The existing para 238(2)(d)(i) of Indian Railways Permanent Way Manual shall be replaced with the following:-

Para 238 (2)(d)(i) – The work of manual deep screening would be done under the supervision of an official not lower in rank than the certified Permanent Way Mistry (Competency certificate should be issued by Chief Track Engineer). However, the work of mechanized deep screening would be done under the supervision of an official not lower in rank than the Permanent Way Inspector.

Note – For LWR/CWR track, provisions given in Manual of Instructions on Long Welded Rails shall be followed.

3.0 Annexure–2/11 Para 263 of IRPWM table shall be replaced with new annexure (copy enclosed).

4.0 Para 273. Bridge Timbers:

4.1. Para 273 Bridge timber shall be renumbered as Para 273 (a) Bridge Timber.
4.2. Proposed Para shall be added as Para 273(b) in IRPWM manual as given below:

Para 273(b) - Steel Sleepers on bridges:

(1) **Terminology:** Steel Sleepers on bridges refer to both Steel Channel Sleepers and Steel H-Beam Sleepers.
(2) Design, Dimensions and sections: Steel sleepers to be used on girder bridges should be fabricated as per approved drawings. For girder bridges on curves, steel sleepers should be designed to suit the specific locations. This may require special arrangement such as

……..2/-

special bearing plates, special hook bolts and other arrangements as necessary to provide required cant on curve.

(3) Sleeper spacing: Maximum centre to centre sleeper spacing should be 600 mm. The clear distance between two sleepers should not be more than 450 mm. The clear distance between joint sleepers should not be more than 200 mm.

(4) Fabrication of Steel sleeper and other components:

(a) Fabrication of Steel Sleepers on bridges and its protective coating should be in conformity with BS-45 issued by RDSO.

(b) For girder, location of Steel Sleepers should be marked and numbered after detailed survey of the girder. The fabrication of Steel Sleeper should be location specific considering the girder centre, top flange cover plates, rivets pitch etc.

(c) In case of bridge on curves, the location of Steel Sleepers should be marked after taking into account the realigned curve. In case transition curve lies on bridge fully or partially, the thickness of steel pad plate should take care of cant gradient.

(5) Laying of Steel sleepers on bridges:

(a) Before laying Steel Sleepers, creep if any, should be pulled back and rail joints should be so located that after laying sleepers, joints should not become supported joints.

(b) The top flange of girder should be cleaned of old paint and then re-painted as specified.

(c) Wherever required the existing cross level and misalignment of girder/track should be corrected in advance of Steel Sleeper laying.

(d) During the course of laying sleepers at least JE/II/P.Way should supervise the work.

(e) Single pad plate below Steel sleeper is preferable. Packing plates can be used along with pad plate to adjust parameters, wherever required. The pad plates are not required where neoprene pad is provided to cover the rivet head.

(6) Maintenance:

(a) After laying Steel sleepers, tightening of all fittings including hook bolts should be done once in 15 days for initial one month. Thereafter it should be done once a month for next six months and subsequently it should be on need basis as observed by inspecting officials. Regarding hook bolts Para 278(3) of IRPWM should be followed.

(b) Guard rail fittings should be tightened once in three month for 1st six months and thereafter on need basis.

(c) The above will be in addition to daily attention by keyman.

(d) Replacement of grooved rubber pads & elastomeric pads shall be done on condition basis.

(e) Suitable stock of spare fittings should always be maintained keeping different types of girders in view.

(f) Suitable quantity of the Steel sleepers along with fittings should be kept as emergency reserve. Emergency reserve stock of channel sleepers should be maintained keeping different types of girders in view.

(g) In case Galvanized coating gets damaged, it should be repaired as specified.

(7) Inspection Schedule (only for channel sleepers):

(a) Condition of Channel Sleepers shall be thoroughly inspected by ADEN and SSE/SE(P.Way) incharge once in a year by rotation. During intensive inspection, the condition of Rivets, distortion or crack in sleepers or any sign of crack in girder flange

……3/-

and tightness of fittings should be looked for. All loose fittings should be tightened after inspection, if required. For few days in the beginning a watch may be kept depending upon the need.

(b) SSE/SE/P.Way and SSE/SE/S&T should jointly inspect insulated Steel Sleepers, every six months for checking the effectiveness of insulation in track circuited areas. SSE/SE/S&T should coordinate this.

5.0 Para 904: At Sl. No.4 of Annexure-9/1 Para 904 of IRPWM regarding Provision of wicket gates for pedestrians for 'C' class level crossing shall be replaced with the following:

"To be provided on need basis after assessing the requirement by a committee constituted by the Railway."

6.0 Para 916 : Existing sentence added vide A&C No.100 dated 21.06.2006 at the bottom of sub-para(1)(i) of para 916 of IRPWM as reproduced below shall stand deleted.

"However, the distance of W/L boards for unmanned level crossings on single line section where visibility is clear, should be reduced to 350m."

7.0 The existing para 918 (1) of Indian Railways Permanent Way Manual shall be replaced with the following:-

Para 918 (1) - One speed breaker should be provided on either approach of level crossings at a distance of about 20m from the gate post of the Level Crossing, covering full width of the road including berms as per Annexure-9/6. This may require construction of speed breaker by Railway outside Railway boundary. For roads with central median/One-Way Roads, speed breaker is to be provided on the entry side of the road only. For safety reasons, the paint marking should be provided and their maintenance ensured.

8.0 The existing para 924(b)(i) of Indian Railways Permanent Way Manual shall be replaced with the following:-

Para 924(b)(i) - Based on traffic density and visibility etc. unmanned level crossings have been categorized into I to III for manning at Railways cost in a phased manner as per following priority:

Category I - All Unmanned Level Crossings with TVU above 3000.

Category II - All Unmanned Level Crossings with visibility restricted to 800 metres for road users and TVU above 2500.

Category III – All Unmanned Level Crossings which do not fall in Category – I & II above and which cannot be eliminated by any other methods like construction of diversion road, subway, closure of gates having low TVU or any other means as per extant policy instructions.

Note for Category III: Divisional Railway Manager shall, ensure identification of unmanned level crossings, which can be eliminated by any other means, get necessary works sanctioned and simultaneously obtain No Objection Certificate (NOC) i.e. consent for closure of unmanned level crossings from the State Govt./District Magistrate to avoid delay in closure. For remaining

….4/-

unmanned level crossings, i.e. which cannot be eliminated by any other methods and where manning is the only solution; Divisional Railway Manager shall recommend proposals of manning of unmanned level crossings, in order of priority, for timely sanction by the competent authority. Manning of level crossings can be prioritized in order of TVU or any other relevant site specific factors. Manning of such unmanned level crossing gates will require specific approval of the General Manager.

9.0 The existing sub-para 924 (b) iii to be deleted.

10.0 The existing para 924(c) of Indian Railways Permanent Way Manual shall be replaced with the following:-

Para 924(c) - Elimination of Level Crossing:

A detailed review/survey of the existing level crossings both manned and unmanned should be carried out with a view to eliminate them by,

(i) Construction of Subways, along with adequate drainage arrangements.
(ii) Construction of roads along Railway boundary to divert road traffic to the nearest level crossing/grade separator/existing Railway bridge, wherever adequate land width is available,
(iii) Closure of low TVU gates,
(iv) Construction of ROB/RUB as per Para 925, etc.

*****

D:\IRPWM with cs\ACS to IRPWM\ACS 128.doc

2458663

11 17:33 .yadav

3. Para 263:

In Annexure- 2/11 Para 263 of Indian Railways Permanent Way Manual Table shall be replaced with the following-

TABLE OF ANNEXURE - 2/11 Para 263

G Gauge	Type of Sleeper	'A	B	C*	D	E*	F	F1	H	Quantity of Ballast per meter in		Remarks
										Straight Track	Curved Track	
1676 mm	Wooden	250	350	500	2,270	2,420	6,850	6,250	540	1.682M^3	1.646M^3	1. The Minimum Clean Stone Ballast cushion below the bottom of sleeper i. e., A–250 mm.
	"	300	"	"	"	"	"	"	590	1.782M^3	1.853M^3	
	"	¶	"	"	"	"	"	"	640	1.982M^3	2.060M^3	2. For routes where increase in speeds are to be more than 130 Kmph. A–300 mm. or 200 mm. along with 150 mm. of sub-ballast.
	Steel Trough	250	350	500	2,280	2,430	6,850	6,250	550	1.762M^3	1.827M^3	
		300	"	"	"	"	"	"	600	1.962M^3	2.035M^3	
		¶	"	"	"	"	"	"	650	2.162M^3	2.242M^3	3. Suitable dwarf walls shall be provided in case of cuttings, if necessary for retaining ballast.
	PRC	250	350	500	2,525	2,675	6,850	6,250	640	1.954M^3	2.032M^3	4. *On outer side of curves only.
	"	300	"	"	"	"	"	"	690	2.158M^3	2.243M^3	
	"	¶	"	"	"	"	"	"	740	2.362M^3	2.455M^3	5. Cess may be widened where required depending on local conditions and outside of curves.
	2 Block	250	350	500	2,360	2,510	6,850	6,250	630	2.110M^3	2.193M^3	6. All dimensions are in mm.
	"	300	"	"	"	"	"	"	680	2.314M^3	2.405M^3	
	"	¶	"	"	"	"	"	"	730	2.518M^3	2.616M^3	7. ¶ 200 over 150 Sub-Ballast.