(22)

W.C.R.

पश्चिम मध्य रेल
West Central Railway

महाप्रबंधक कार्यालय
अभियांत्रिकी विभाग
जबलपुर-482001
General Manager's Office
Engineering Department
Jabalpur-482001

No.: W-HQ/W-4/TR-II/CTE SAFETY DRIVE

Date: 25.04.2019

CAO (C)/WCR
GM/IRCON/Katni
CPM/RVNL / BPL & Kota,

CTE PROCEDURE ORDER NO. 6 / 2019-20

Sub.: **Provision of Gauge Face Rail Lubricators NL/DL/TL.**
Ref.: Correction Slip No. 136 of IRPWM dated 14.11.2014. (Copy enclosed)

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As per Correction Slip No. 136 of IRPWM dated 14.11.2014 for Para 427 (2) of IRPWM, ***"Track mounted Automatic Gauge Face lubricators should be provided on curves of radius 875m (2°) and sharper on Broad Gauge and of radius 300m and less on Meter Gauge to reduce rail gauge face wear"***. Installation of Track based Lubricator is Very Important to limit Excessive wear on Outer rails of Curves.

While executing the NL/DL/TL works, Gauge Face Rail Lubricators may be provided at above specified locations before CRS Inspection. The aspect shall be checked/monitored during SAG Inspection of NL/DL/TL.

DA: As above.

(Rajesh Arora) 25/4/19
Chief Track Engineer

(3) 25/4/19

25/4/19

Send via mail on 25.4.19
Time - 12.45 P.M.

INDIAN RAILWAYS PERMANENT WAY MANUAL
ADVANCE CORRECTION SLIP No. 136 dated 14.11.2014

1. The existing Para 237(8) (b) of Indian Railways Permanent Way Manual shall be replaced with the following:

Para 237(8)(b) – If gauge of track adjoining the points and crossings is maintained wider/ tighter than the gauge on the points and crossings, the gauge on the adjoining track should be brought gradually to same gauge as in the points and crossings as a good maintenance practice.

2. The existing Para 279 of Indian Railways Permanent Way Manual shall be replaced as under:

Para 279. Provision and maintenance of signalling fixtures in track:

(1) Provision of signalling fixtures in track:

(a) No signal fixtures / installation which interfere with maintenance of track should be provided on track unless the approval for same is available from Track Directorate of RDSO or Railway Board.

(b) S&T Department shall provide adequate number of personnel for opening of signal rod, gears etc. to facilitate mechanized track maintenance.

(2) Precautions to be taken while working in Track Circuited Area:

(a) The Permanent Way Inspector should instruct the staff not to place across or touching two rails in the track, any tool or metal object which may cause short circuiting.

(b) All gauges, levels, trolleys and Lorries used in the track circuited length should be insulted.

(c) Steel or C.I. pipes used for carrying water /gas under the track should be run sufficiently below the rails to prevent any short circuiting.

(d) While carrying out the track maintenance, care should be taken to see that no damage of track circuit fittings like rail bonding wires, lead wires to rails, boot leg, jumper wires etc., takes place.

(e) Use of steel tapes should be avoided in track circuited section.

(f) Pulling back of rails should be done in track circuited areas in the presence of S&T staff, where signaling connections are involved.

(g) Proper drainage should be ensured so as to avoid flooding of track, during rains, particularly in yards, where watering of coaches is done and in water columns and ashpits. It would be desirable to provide washable concrete aprons on platform lines at originating stations, in track circuited areas.

(h) Ballast must be kept clean throughout the track circuited section and care should be taken to see that minimum ballast resistance per kilometer of track should not be less than 2 ohms per km in station yard and 4 ohms per km in the block section as per Signal Engineering Manual Para 17.28. Wherever, PSC sleepers are used, availability of insulated liners upto a minimum level of 97% shall be ensured.

3. The existing Para 406(2) (a) of Indian Railways Permanent Way Manual shall be replaced with the following :

(2) Cant Deficiency- Maximum value of cant deficiency-

(a) On routes with track maintained to C&M-I, Vol-I standard for nominated rolling stock with permission of Principal Chief Engneer. ..... 100 mm.

4. The existing para 421 of Indian Railways Permanent Way Manual shall be replaced by the following:-

Para 421. Criteria for realignment of a curve –

(1) When as a result of inspection by trolley or locomotive or by carriage or as a result of Track Recording carried out, the running on a curve is found to be unsatisfactory the curve should be realigned.

(2) The running over a curve depends not only on the difference between the actual versine and the designed versine but also on the station to station variation of the actual versine values. This is because, it is the station to station variation of versine which determines the rate of change of lateral acceleration, on which depends the riding comfort.

Service limit for station to station versine variation for 3 speed group viz, Below 140 kmph and upto 110 kmph, Below 110 kmph and upto 50 kmph and below 50 kmph. should be considered as tabulated below:

S. No.	Speed on curve	Limits of station to station variation of versine (mm).
1	Below 140 kmph and upto 110 kmph	10 mm (15 mm for speed of 110 kmph) or 20% of average versine on circular portion, whichever is more.
2	Below 110 kmph and upto 50 kmph	20 mm or 20% of average versine on circular portion, whichever is more.
3	Below 50 kmph	40 mm or 20% of average versine on circular portion, whichever is more.

In case exceedence of the above limit is observed during inspection, local adjustment may be resorted to in cases where the variation of versine between adjacent stations is only at few locations, at the earliest possible. If more than 20% stations are having versine variations above the limits prescribed, complete realignment of curve should be planned within a month.

5. The existing Para 427(2) of Indian Railways Permanent Way Manual shall be replaced with the following:

Para 427(2): Track mounted automatic Gauge Face Lubricators should be provided on curves of radius 875m (2^0) and sharper on broad gauge and of radius 300 m and less on meter gauge to reduce rail gauge face wear.

On routes where rail grinding is in practice, Track mounted automatic Gauge Face Lubricators should be provided on curves of radius 1400m (1.25^0) and sharper on Broad Gauge. While deciding the location of lubricators, following should be considered: -

(a) It is located on tangent track at the beginning of transition curve where wheel flanging is just beginning to occur. On single lines, the lubricator shall be located in the direction of heaviest traffic.

(b) Lubricators should be located away from switches, crossings and other areas where discontinuity in LWR track may exist.

6. The existing Para 502(1) of Indian Railways Permanent Way Manual shall be replaced with the following:

Para 502(1)- Alumino Thermic Welding of rails may be carried out in accordance with the detailed procedure laid down in the 'Manual for Fusion Welding of Rails by Alumino Thermit Process'. A thermit weld done in-situ shall be joggled fish-plated with two clamps and supported on wooden blocks till tested as good by USFD.

7. The existing Para 708(1) of Indian Railways Permanent Way Manual shall be modified by incorporating a note below para as under:

Note: - The maintenance tolerances given in different Para of IRPWM are for mainline track only on consideration of comfort and not for yard lines and other lines having low speed potentials.

8. The Annexure-7/2 Part-B of Para 708 (1) of Indian Railways Permanent Way Manual shall be replaced by following:

ANNEXURE-7/2 Contd... PARA 708 (1)

PART - B
Track Measurements

Station No.	Distance apart in metres	Gauge slack or tight from the exact (mm.)	Cross Level (mm.) Under no load condition	Marks on sleepers or rail top	Grinding or rubbing marks on rails
1	2	3	4	5	6

Examination of alignment for perceptible kinds of track distortion in the vicinity of the point of derailment	Subsidence of track	Versine in mm.		Remarks regarding length of transition, degree of curve and specified superelevation general alignment etc.	Longitudinal level to be recorded in the case of M. G. and N. G. in case of sags and curves
		On 20 M. or 10 M. chord depending on practice prevalent on the Railway for flat curves more than 600 M. radius	On 10 M. or such shorter Chords as considered necessary for sharp curves (less than 600 M. radius on B. G. and M. G.)		
7	8	9	10	11	12