GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)

No. 2009/CE-II/CS/1

New Delhi, dt. 21.02.2011.

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 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, IIRCEN, Pune.
Director, IRIEN, 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.


Ministry of Railways (Railway Board) have decided that correction/addition as indicated in the enclosed Advance Correction Slip No.125 dated 21.02.2011, to relevant para of the IRPWM, be made.

Receipt of this letter may please be acknowledged.

(21.02.11)

(P.K. Sharma)
Director Civil Engg.(P),
Railway Board.
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(Vig.), Adv(L&A), Adv(Safety), Adv(Project), AM(F), 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, EDVE.

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

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In Indian Railways Permanent Way Manual a new para 272(4) (a) may be added as under:

1. New Para 272(4) (a) may be added to IRPWM given as under:-

Para 272(4) (a) – 26m long rolled rail may be laid on bridges with 1.0 m long fish plate and 06 bolts. Joint gaps to provided and maintained as per para 508 & 510 (3).

2. The existing paras 508, 510(3) of Indian Railways Permanent Way Manual shall be replaced by the following:

Para 508. Laying of short welded rails (SWR) - The gaps to be provided for SWR at the time of laying shall be in accordance with Table I depending on the installation temperature (t_i) and the Zone in which the rails are laid -.

**TABLE I**
Initial laying gaps for SWR for various installation temperatures

**For Zones I and II**

<table>
<thead>
<tr>
<th>Rail temperature at the time of installation (t_i) (in centigrade)</th>
<th>tm-17.5 to tm- 12.6</th>
<th>tm-12.5 to tm- 7.6</th>
<th>tm-7.5 to tm- 2.6</th>
<th>tm-2.5 to tm-+2.5</th>
<th>tm+2.6 to tm+ 7.5</th>
<th>tm+7.6 to tm+ 12.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial laying gaps (in mm) For 39 m panels</td>
<td>12</td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>For 26 m rolled rails</td>
<td>10</td>
<td>9</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

**For Zones III and IV**

<table>
<thead>
<tr>
<th>Rail temperature at the time of installation (t_i) (in centigrade)</th>
<th>tm-22.5 to tm- 17.6</th>
<th>tm-17.5 to tm- 12.6</th>
<th>tm-12.5 to tm- 7.6</th>
<th>tm-7.5 to tm-2.5</th>
<th>tm-2.4 to tm+ 2.5</th>
<th>tm+2.6 to tm+ 7.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial laying gaps (in mm) For 39 m panels</td>
<td>12</td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>For 26 m rolled rails</td>
<td>10</td>
<td>9</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

If the laying has to be done outside the temperature range given in table above, or whichever joint gaps could not be provided as per the table, readjustment of gap shall be carried out within two days of laying before the track consolidates. Along with the gap adjustment, any re-spacing of sleepers, if required, must be carried out.
Para 510 (3). **Recommended range of value of gaps** – The recommended range of value of gaps (in mm.) during service for various ranges of rail temperature is indicated in the table given below:

**TABLE II**

Initial laying gaps for SWR for various installation temperatures

<table>
<thead>
<tr>
<th>Temperature during gap survey (in centigrade)</th>
<th>For Zones I and II</th>
<th>For Zones III and IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>tm-12.5 to tm- 7.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tm-7.5 to tm- 2.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tm-2.5 to tm+ 2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tm+2.6 to tm+ 7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tm+7.6 to tm+ 12.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tm+12.6 to tm+ 17.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Permissible values of gap (in mm)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>For 39 m panels</td>
<td>11 to 14</td>
<td>9 to 13</td>
</tr>
<tr>
<td>For 26 m rolled rails</td>
<td>8 to 13</td>
<td>6 to 11</td>
</tr>
<tr>
<td>For 39 m panels</td>
<td>11 to 14</td>
<td>9 to 13</td>
</tr>
<tr>
<td>For 26 m rolled rails</td>
<td>8 to 13</td>
<td>6 to 11</td>
</tr>
</tbody>
</table>

**Note:**

(i) The gaps given above are to be distinguished from the values given in Para 508 (Table-I) which are intended to be provided at the time of initial laying of SWR.

(ii) Gap survey should be carried out when rail temperature is in rising trend only.

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