

**MANUAL OF INSTRUCTIONS ON LONG WELDED RAILS (1996)**

**ADDENDUM AND CORRIGENDUM SLIP NO 14 OF 2011**

Existing Para	Modified Para																																								
<p><b>Para No. 3.4: Approval of Principal Chief Engineer:</b> Installation of LWR/CWR or change in its constitution at a later stage shall have the approval of the Territorial Chief Engineer concerned in each case, on a detailed plan prepared in accordance with Para 5.1.3. However, for any deviation from the provisions of this Manual, the approval of Chief Engineer shall be obtained.</p> <p><b>Para 8.2.5:</b> AEN will analyse the observation of each LWR/CWR in his jurisdiction and give a certificate at the end of LWR/CWR register before onset of summer regarding satisfactory behavior of all LWR/CWRs. DEN/Sr. DEN will scrutinize observations of each LWR/CWR, initial each page and send exception report to Territorial Chief Engineer for his decision/orders.</p> <p><b>Para 9.1.8(i):</b> He shall be responsible for ensuring that AENs and supervisors working under him are fully conversant and comply with provisions in this manual and such other supplementary instructions issued by Chief Engineer from time to time.</p> <p><b>Para 9.1.8(iv):</b> He shall scrutinize LWR/CWR registers of his jurisdiction every year in the month of February and record his certificate about satisfactory behavior of LWR/CWR in his jurisdiction. He shall refer the details of all LWR/CWR to territorial Chief Engineer where he requires his orders/decision.</p> <p><b>Annexure-VI, item 1 (c) (i):</b> Lifting/Lowering of track- PWM</p> <p><b>Annexure-VI, item 3(d):</b> Deep screening-PWM</p> <p><b>Annexure-V, Table-I</b></p> <table border="1"> <thead> <tr> <th>Rail Section</th> <th>Area (cm<sup>2</sup>)</th> <th>E (kg/cm<sup>2</sup>)</th> <th>α (°C)</th> </tr> </thead> <tbody> <tr> <td>60kg(UIC)</td> <td><b>78.86</b></td> <td>2.15X10<sup>6</sup></td> <td>1.152X10<sup>-5</sup></td> </tr> <tr> <td>52kg</td> <td>66.15</td> <td>-do-</td> <td>-do-</td> </tr> <tr> <td>90R</td> <td>56.95</td> <td>-do-</td> <td>-do-</td> </tr> <tr> <td>75R</td> <td>47.37</td> <td>-do-</td> <td>-do-</td> </tr> </tbody> </table>	Rail Section	Area (cm <sup>2</sup> )	E (kg/cm <sup>2</sup> )	α (°C)	60kg(UIC)	<b>78.86</b>	2.15X10 <sup>6</sup>	1.152X10 <sup>-5</sup>	52kg	66.15	-do-	-do-	90R	56.95	-do-	-do-	75R	47.37	-do-	-do-	<p><b>Para No. 3.4: Approval of Principal Chief Engineer:</b> Installation of LWR/CWR or change in its constitution at a later stage shall have the approval of the Chief Track Engineer in each case, on a detailed plan prepared in accordance with Para 5.1.3. However, for any deviation from the provisions of this Manual, the approval of Principal Chief Engineer shall be obtained.</p> <p><b>Para 8.2.5:</b> AEN will analyse the observation of each LWR/CWR in his jurisdiction and give a certificate at the end of LWR/CWR register before onset of summer regarding satisfactory behavior of all LWR/CWRs. DEN/Sr. DEN will scrutinize observations of each LWR/CWR, initial each page and exception report to be submitted to Chief Track Engineer only when his orders are required.</p> <p><b>Para 9.1.8(i):</b> He shall be responsible for ensuring that AENs and supervisors working under him are fully conversant and comply with provisions in this manual and such other supplementary instructions issued by Principal Chief Engineer from time to time.</p> <p><b>Para 9.1.8(iv):</b> He shall scrutinize LWR/CWR registers of his jurisdiction every year in the month of February and record his certificate about satisfactory behavior of LWR/CWR in his jurisdiction. He shall refer the details of all LWR/CWR to Chief Track Engineer where he requires his orders/decision.</p> <p><b>Annexure-VI, item 1 (c) (i):</b> Lifting/Lowering of track (done in normal maintenance of track)-PWM (ii): Lifting/Lowering of track (beyond that is done in normal maintenance of track)-PWM (Competency certificate should be issued by Chief Track Engineer)</p> <p><b>Annexure-VI, item 3(d):</b> Deep screening-PWM (Competency certificate should be issued by Chief Track Engineer)</p> <p><b>Annexure-V, Table-I</b></p> <table border="1"> <thead> <tr> <th>Rail Section</th> <th>Area (cm<sup>2</sup>)</th> <th>E (kg/cm<sup>2</sup>)</th> <th>α (°C)</th> </tr> </thead> <tbody> <tr> <td>60kg(UIC)</td> <td><b>76.86</b></td> <td>2.15X10<sup>6</sup></td> <td>1.152X10<sup>-5</sup></td> </tr> <tr> <td>52kg</td> <td>66.15</td> <td>-do-</td> <td>-do-</td> </tr> <tr> <td>90R</td> <td>56.95</td> <td>-do-</td> <td>-do-</td> </tr> <tr> <td>75R</td> <td>47.37</td> <td>-do-</td> <td>-do-</td> </tr> </tbody> </table>	Rail Section	Area (cm <sup>2</sup> )	E (kg/cm <sup>2</sup> )	α (°C)	60kg(UIC)	<b>76.86</b>	2.15X10 <sup>6</sup>	1.152X10 <sup>-5</sup>	52kg	66.15	-do-	-do-	90R	56.95	-do-	-do-	75R	47.37	-do-	-do-
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