

No. 2018/Track-I/11/1/AT Welding Vol-II

New Delhi, dt. 13.02.2023

PCEs, All Indian Railways.

CAOs(Con), All Indian Railways.

विषय/Sub: **FB welding of free rails by Railways and PSUs in Construction Projects.**

संदर्भ/Ref: 1. Board's letter no. 2011/Track-I/5(1)/8 dated 13.07.2016.
2. Board's letter of even no. dated 08.03.2021.
3. NR's letter No. 2019-W/o/Policy/TP/14-2021 dated 20.09.2021.

In regard to the above mentioned subject, detailed instructions regarding "Welding methodology in track laying in Construction Projects for projects targeted for commissioning in 2017-18 and onwards" was issued vide Board's letter under Ref.-1. Thereafter, in March 2021, it was again reiterated, vide Board's letter under Ref.-2, that, for opening the new construction projects e.g. New Line(NL), Gauge Conversion(GC) and Doubling Works (DW), service rails are to be used.

There has been a few request from Construction Units for supply of free/26m rails in order to expedite completion. Therefore, it is again advised that, only service rails are to be used in NL, GC, DW and all out efforts must be made to avoid use of site welding and use of free rails in all Construction Projects. Zonal Railways, Construction Units and PSUs should plan the completion accordingly and advised to strictly adhere to the instruction.

This may be treated as **MOST URGENT.**


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प्रतिलिपि/Copy to:

1. CMD, RITES, RITES Bhawan, Plot No.1, Sector-29, Gurugram, Haryana 122001.
2. CMD, IRCON, C-4, District Centre, Saket, New Delhi-110017.
3. CMD, RVNL, 1st Floor, August Kranti Bhawan, Bhikaiji Cama Place, R.K. Puram, New Delhi-110066.
4. MD, DFCCIL, 5th Floor, Pragati Maidan, Metro Station Building Complex, New Delhi-110001.

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GOVERNMENT OF INDIA (भारतसरकार)
MINISTRY OF RAILWAYS (रेलमंत्रालय)
(RAILWAY BOARD) (रेलवेबोर्ड)

सं/No. 2011/Track-1/5(1)/8

New Delhi, Dated 13.07.2016

- ✓ 1. General Managers,
All Indian Railways.
- ✓ 2. General Manager (Construction),
NE Railway, Maligaon, Guwahati.
- ✓ 3. Director General,
RDSO, Lucknow.

**विषय/Sub: Welding methodology in track laying in Construction Projects
for projects targeted for commissioning in 2017-18 and
onwards.**

- संदर्भ/Ref:** i) Member Engineering/Railway Board's letter No. Track/21/2009
/0110/7 dated 04.08.2011,
ii) This office letter No. Track/21/2009/0110/7 dated 03.12.2014 &
05.05.2015;
iii) This office letter No. Track/21/2005/0110/AT Welding/Pt. dated
06.12.2006.

Instructions have been issued from time to time for welding methodology in track laying in Construction Projects for the purpose of reducing the scope of AT Welding by using 10/20 rail panels and switching over to flash butt welding of rails in Construction Projects. In supersession of all the letters issued in this regard, following instructions are being issued for track laying in all construction projects. The methodology given below is obligatory for all works targeted for Financial Year 2017-18 and onwards. The tenders for track works should be prepared/finalised accordingly.

2. Abbreviations used:

MFBWP: Mobile Flash Butt Welding Plant

LRPs: 10/20 rail flash butt welded panels - either from Bhilai Steel Plant or welded panels from Departmental Flash Butt Welding Plants or 10 rail panels prepared at site by using mobile flash butt welding plant in stationary mode.

Service Rails: Released rails/rail panels fit for initial linking of track for purpose of taking track machines, ballast DMT etc. only and not for opening section for any commercial traffic.

WST: Work Site Tamper

Construction Organisation: CAO(Con) units, IRCON, KRCL, RVNL, RITES, MRVC or any organization/unit, carrying out track construction work.

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3. New Line Projects:

Initial track laying should be carried out by using service rails. Yard arrangements at the connecting rail head should facilitate provision of Engineering Siding for movement of Engineering Material and Track Machines. The track shall then be levelled, aligned, sufficiently ballasted, packed/tamped by deploying track machines (WST, etc.), to make track geometry suitable for a speed about 45 to 50kmph. These service rails should then be replaced with LRPs.

4. Gauge conversion Projects:

Yard arrangements at the connecting rail head should facilitate provision of Engineering Siding for movement of Engineering Material and Track Machines. Wherever the work is required to be done with new rails, the track shall be initially laid with released rails of MG track (90 R or higher section) or suitable service rails. The track shall then be levelled, aligned, sufficiently ballasted, packed/tamped by deploying track machines (WST, etc.), to make track geometry suitable for a speed about 45 to 50kmph. These service rails should then be replaced with LRPs.

Wherever work is sanctioned with second hand rails, Construction Organisation should complete the TRR with Flash Butt Welded Panels of SH rails following above instructions.

5. Doubling:

The arrangement shall be made to open as Engineering Siding after linking the track with service rails. The track shall then be levelled, aligned, sufficiently ballasted, packed/tamped by deploying track machines (WST, etc.), to make track geometry suitable for a speed about 45 to 50kmph. These service rails should then be replaced with LRPs.

6. AT Welding in Construction Projects:

AT Welding may be carried out in Construction Projects in the following cases with personal approval of CAO (Con.):

- (i) Installation of SEJs.
- (ii) Installation of Glued Joints.
- (iii) Stock Joints and lead portions in turnouts.
- (iv) Welding of 10/20 rail panels in Construction Projects to convert into LWR.
- (v) Dead ends, sidings, loop lines, etc.

For other locations, approval of PCE should be solicited by CAO/Con giving due justification.

7. Mobile Flash Butt Welding in Construction Projects:

MFBWP if used for welding shall be done keeping it in stationary mode by making temporary depots at suitable locations at the site of work. Panels of suitable length preferably 10 rail panels should be made in the temporary


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depots and these panels should be carted to the site by suitable mechanized means and/or by use of heavy duty rollers. Welding of these rail panels to convert into LWR in the track can be done either by AT welding (Refer Para 6 above) or by Mobile Flash butt welding duly taking care of quality of work.

8. Service rails requirements should be assessed and ensured that these are collected in year 2016-17 from various releases in open line and construction units.
9. The works targeted for year 2016-17 may be carried out as per the planning already done by Railways.

[Signature]
13/7/2016

(B.P. Awasthi)
Executive Director/Track(P)
Railway Board.

प्रतिलिपि/Copy to :

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1. AM/Traffic, AM/Planning, Railway Board for information.

2. CAOs, All Indian Railways for necessary action.

3. PCEs, All Indian Railways for necessary action and to collect and make available service rails to construction units from releases of CTR, TRR, etc.

4. Director/IRICEN, Pune for information.

5. CMD/IRCON, CMD/KRCL, CMD/RITES, CMD/MRVC and CMD/RVNL for necessary action.

6. AM/CE, AM/W, Adviser/Bridge, Adviser/L&A, ED/CE(P), ED/CE(B&S)-II, ED/CE(G), ED/L&A-I, ED/L&A-II, ED/Track(M), ED/Track(MC), ED(W), ED/Proj. Monitoring, ED/W&P, ED/Infra(Civil), DCE(P), DCE(B&S)-I, DCE(G), Dir(L&A), Dir(WCS), DTK(M), DTK(MC), DW-I, DW-II, DWCS, DW(P), Dir/PPP(Civil) for information.

(4-07-16)

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