

## SPECIAL CONDITIONS FOR P. WAY WORKS

### A. GENERAL

1. All the track works must be carried out as per instructions given in “Indian Railway Permanent Way Manual (IRPWM) – 1986 (reprinted in 2004 edition) with all CS up to date and Indian Railways Schedule of Dimensions (B.G.).
2. CE’s circular No. 255 ( Revised) will be followed, which primarily states:-
  - (a) No track work should be carried out by the contractor without the presence and supervision of a railway official (not below the rank of Permanent Way Supervisor) authorised by an officer of the Engineering department not below the rank of Assistant Engineer. In case the contractor s representative starts any work in absence of a PWI, it shall be treated as unauthorised and illegal tampering with the track and shall be liable for action. All track protection arrangements will be done by the Railway.
  - (b) The competent P.Way inspector/Supervisor before the commencement of each day’s work shall issue the permit to work memo (as per standard format) to the contractor or his representative with due acknowledgement (on obtaining the traffic block if necessary in consultation with traffic controllers). This ‘Permit To Work’ memo shall be valid only for the date of issue, and shall be returned back by the contractor/contractor’s representative to the P.Way inspector / supervisor on completion of the day’s work.
3. All P.Way tools and plants required for the work will have to be arranged by the contractor and these should be of approved type only. No P.Way tools will be supplied by Railway. However, dip lorries may be arranged by the Railway free of cost as and when required in connection with the work. The dip lorries will remain in the custody of the Railway’s representative at site and should not be put on track in absence of Railway’s supervision (not below the rank of PWM). Maintenance of dip lorries including replacement of bearing and rectification of any other damage during execution of work - will have to be done by the contractor at his own cost as per direction of Engineer-in-charge. Failing which necessary cost of repair will be recovered from contractor’s bill/dues.
4. For works requiring traffic blocks, necessary traffic block will be made available as far as possible. However, if traffic block is not be permitted on any of the day, the contractor will not have any claim for the idling of his/their men and materials. The rate quoted should cover all such contingencies.
5. For work which is to be carried out under traffic conditions, it will be the responsibility of the contractor to see that there is no detention and or interruption to the movement of trains. No claims will be admissible towards loss of time, wastage of labour employed etc. which may be incurred by the contractor due to movement of trains. The rate quoted should cover all such contingencies.
6. Release materials shall be deposited by the contractor at nearest SE/P-Way store or nominated location for which cost of transport shall be paid by Rlys under relevant schedule except for free lead provisions wherever mention in schedule.
7. Contractor should take all precaution for safety of his/their labour against running traffic. Railway shall not entertain any claims towards any accident whatsoever of the labour engaged by the contractor.
8. In case of any accident, the contractor shall be liable to pay for the damages to the extent; he is responsible on the basis of the report of enquiry committee accepted by competent authority of Railways.
9. The entire work will be executed under the supervision of Rly.’s Engineer-in-charge or his authorized representative at site.

## **B. FOR WELDING WORKS**

1 The welding portions and other consumables shall be issued to the contractor from the store godown of concerned Section Engineer/P.Way. Contractor should make his own arrangement for transporting of those materials to the site in intact condition. Any loss/damage etc. in the transit shall be the responsibility of the contractor. The contractor should note that the welding portions are sensitive to moisture and may become non functional due to ingress of moisture etc. Contractor shall therefore, take adequate safeguard / measures against any ingress of moisture in welding portion during transit as well as during storage at site. If any portion, consumables become un-usable due to moisture etc., Railway will recover the cost of affected materials as per extant rules.

2 For insitu AT welds, the contractor must ensure that the thermit joints are finished by rail profile grinder on the same day of welding. In case the contractor fails to comply this, the railway may take up the work departmentally and recover the cost of work including other liquidated damage from contractors bill.

3 Contractor has to provide skilled as well as un-skilled staff and consumables for conducting post weld - treatment as per the specifications of the manufacturer.

4 All the A.T. Welded joints which are made by the contractor against this contract should be painted with contractor's high build epoxy paint (2 packs) conforming to RDSO specification No M&C /PCN-III/2000 on the welded area upto 10 cm on either side. Before that the dust and dirt and flaked paint are to be removed from the welded joints by wire brushing. The surface is to be degreased before painting by petroleum hydrocarbon or any other suitable solvents if oil or grease is present. The welded area is to be scrubbed with water to make it free from slag and other water soluble compounds before painting. No extra payment will be made to the contractor for execution of said item. The detailed specifications and procedures of painting should be as per Railway's A.T. welding manual.

**Payment for supply of labor for welding will be done only after painting of these joints as detailed above.**

## **C. Painting of in-service rails (with anti corrosive bitumen black paint as per IS:9862 with grease around the liner.)**

### **1 SURFACE PREPARATION:**

1.1 The surface preparation of rails is one of the most important pre-requisite for the painting to serve the purpose. Surface preparation shall not be done unless the approved paints in sufficient quantities are available in stock at site. Sufficient care should be taken in preparing the surface and is, therefore, required to be done under proper supervision. The surface shall be made free from oil, grease and dust. The surface shall be rubbed with wire brush and sand paper etc. The tools used may be hand or power operated such as scrappers, wire brushes, sand paper, pumice stones, etc. Wire brushing should invariably be done at the end so as to obtain a uniform rubbed surface. The surface prepared may be checked by visual observation for uniformity of surface.

1.2 Special care should be taken in preparing the surface at the weld collars, liner contact areas. Generally weld collars and liner contact areas are considered most corrosive areas.

2. Surface preparation/painting shall not be done in the following conditions.

- i) When the ambient temperature is below 10° centigrade or above 50° centigrade.
- ii) In rainy season.
- iii) During night.
- iv) In winter before 8.00 A.M.
- v) In summer between 11.00 A.M. and 3.00 P.M. on areas that are likely to exposed to direct sun light.
- vi) Extremely windy/misty/dust blowing conditions.
- vii) Chemicals should not be used for surface preparation.

### 3. PAINTING SCHEME:

- i) 1st Coat: Anti corrosive bituminous black paint confirming to IS:9862-1981 to a thickness of 100 microns.
- ii) 2nd Coat: Anti corrosive bituminous black paint confirming to IS:9862-1981 to a thickness of 100 microns.

### 4 METHOD OF PAINTING:

- i) A speed restriction of 30 Kmph shall be imposed in a selected stretch and only alternate ERCs are removed either inside of the gauge face or outside of the gauge face. This work should be planned only when rail temperature is likely to be within the range " $t_d - 20^{\circ}\text{C}$  to " $t_d + 10^{\circ}\text{C}$ .
- ii) At no point of time both inside and outside ERCs even on alternate sleepers should be removed.
- iii) The work shall be started at around 8.00 hrs. and ERCs shall be removed at alternate sleepers and on completion of surface preparation, bituminous black conforming to IS:9862-1981 shall be applied to a thickness of 100 microns and allowed to dry for 8 hours. Subsequently the second coat shall be applied to a thickness of 100 microns and allowed to dry for 8 hours. After that, the liner and ERCs are fixed to the rails. All the liners shall also be painted with anti-corrosive black after duly cleaning the surface.
- iv) Similarly in the same caution order, alternative left over ERCs are removed and painting done as indicated above.

### 5 TREATMENT OF RAIL SURFACE NEAR LINER:

Greasing of ERC shall include application of Rlys grease on the under side of liners as also the corresponding area of the rail foot. To avoid ingress of toilet droppings as well as moisture to the surface of liner and rail foot, grease shall also be applied along the boundary of liner so as to seal the liner boundary.

### D Other Special Condition for P.Way works:-

1. The contractor will be responsible for all new materials except Rails issued to him and released from track, until fixed in position and handed over to PWI-in-charge at his station depot. The materials will not be taken over in mid section and contractor will be responsible for guarding the materials until it is carried to station depot and handed over to PWI concerned. No extra amount will be payable on this account.
2. In case contractor fails to return the unused and excess materials issued to them and released materials, the cost of such materials will be deducted from the contractor's dues as per Railway's rules laid down in Indian Railway Standard General Conditions of Contract-2014, with all correction slips up-to-date.
3. The contractor will hand over the track in a safe condition to the satisfaction of the Engineer-in-charge at the end of block period. If on completion of block period the track is not considered safe by the Engineer-in-charge or PWI-in-charge, the track will be attended by the PWI concerned with Railway's labour. The expenditure to be incurred by the Railway for this purpose will be recovered from the contractor's dues. No formal notice to the contractor will be necessary for deputing Railway's labour in such cases.
4. The contractor should mobilise to do night working in depot as well as at work site during traffic block, for which they will be required to have their own sufficient lighting arrangement. No extra payment will be admissible on this account.
5. The centre line marking shall be pegged out using theodolite by the contractor's Engineer under the direction of Engineer-in-charge. The pegging shall be done at the contractor's cost. The track shall be brought to this pegged alignment after deep screening during packing. No extra payment will be made for this purpose. Similarly, in curves, re-alignment of the curve shall be done during packing of the track based upon the slews calculated by the Engineer-in-charge.

6.	The longitudinal Rail level shall be taken and plotted in terms of the C.E.Circular No. 164. The reduced level of the track shall be taken using level instrument by the Contractors Engineer under the direction of Engineer-in-charge. The level instrument shall be arranged by the Contractor on his own. The Railway may consider the request of the contractor for supplying level instrument free of cost for measurement. However, contractor will not have any claim for not supplying level instrument to him.
7.	Following records shall be maintained at site by contractors engineer duly signed by the Contractor and Railway s Representatives and to be produced for making on account payment :- 1.Master chart showing initial level of the track. Level of track after deep screening and final level of the track to be achieved and final level of track actually achieved,2.Level Book,3.Track parameters Register showing gauge and cross level at every 6th Sleeper and alignment on 7.2 m chord after each through packing,4.Welding Register as per the proforma approved by the Engineer-in-charge.
8.	The sleeper numbering shall be done using paint at the End of the each sleeper after the sleeper renewal as per the direction of Engineer-in-charge at the contractors cost. No extra payment shall be given to the contractor for this purpose.
9.	Normally on account payments will not be made for an amount less than 10 percent of the agreemental value. However, this may be relaxed at discretion of Engineer-in - Charge.
10.	25 percent of the payment towards the TRR done will be with-held and shall be paid only after the released rails/ fittings are transported and stacked by the Contractor at the nominated locations as specified by the Engineer-in-charge. The stacking of released materials shall be done classification-wise neatly and free from infringements etc.
11.	25 percent of the payment towards TSR shall be with-held by the Railways and paid to the Contractor only after he has successfully transported the released sleepers and fittings to the nearest Railways loading locations in the yards or as nominated by the Engineer-in-charge.
12.	In case the released sleepers are damaged AEN concerned shall give a certificate to this effect and the payment with-held shall be released to the contractor.
13.	In case the sleepers are reusable and are required to be stacked in the mid-sections AEN concerned shall certify accordingly and the payment with-held as aforesaid shall be paid to the contractor based on AEN s certificate.
14.	Progress may get affected due to the short supply of P.Way materials due to the unforeseen reasons.No claim shall be entertained from the Contractor in this regard. Supply of Railways P.Way materials will be subject to availability of the same and they will be supplied to the Contractor as and when available. The Contractor shall have no claim what-so-ever on this issue.
15.	The Contractor with the help of his Engineer or Diploma holder , as the case be , shall make necessary Drawings, sketches, plotting, peg markings etc. as desired by the Engineer-in-charge. No extra cost shall be claimed on this account.
16.	Please note that if required in case of some urgency the work or part thereof may be executed at any other locations under the jurisdiction of concerned Sr.DEN/DEN of Kharagpur division at the same rates, terms and condition.
17.	The contractor is required to achieve the track parameters as specified in the IRPWM -2004 with up to date correction slips after completion of through packing. The schedule of relaxatyion of speed estriction as per IRPWM has to be followed by the contractor. Specification for track laying standards can be obtained from Engineer-In Charge.
18.	As this work is labour intensive, the contractor has to obtain necessary labour license from concerned authorities.

19. Payment will be made only after track is lifted to final level to the full satisfaction of the Engineer-in-charge. No part payment for this lift is permissible. Final payment will be made based on levels. The AEN has to submit cross section showing the initial and final rail levels to identify the lifting done.
20. There shall be an assurance register kept at each site which will had to be signed by both i.e. Rlys supervisor or his representative as well as the contractors supervisor as a token of their having understood the safety precaution to be observed at site.
21. During works of deep screening and sleepers renewal at level crossings where concrete blocks have been laid the blocks are to be removed before taking up the work and stacked nearby without causing damage to the block and blockage of passage and at level crossings surface should be temporarily levelled with moorum etc. at the end of days work. After completion of rail renewal and packing at the location these concrete blocks should be laid as they were laid before taking up the work and as per instruction of site-in-charge. No extra payment shall be made for this work.
22. Welding of rail SWR to LWR Single Rail to SWR etc. by SKV process will be under the supervision of representative of ITC /Kanpur or Harshad and Engineering representative of Rly, at site of work.
23. The work will be done in day light hours and the welding work should not be done during rain. The work should be executed by the contractor s skilled/unskilled and artisan staff like welder, luter , aligner, moulder and required petrol, K.oil etc. for smooth progress of the work as directed by the Engineer-in-charge at site will be provided by the contractor.
24. For IN SITU welding, the grinding of weld should closely follow all arrears in grinding and should not be more than two days of welding work. The welding has to be done with post weld treatment as per specification of the manufacturer of the portion duly approved by RDSO.
25. The contractor will hand over the track in a safe condition to the satisfaction of PWI-In-Charge or his representative at the end of days work. If the track is not considered safe then it will be got attended by the Rlys labour and the wages and other expenses of the Rly. Labour so deputed will be recovered from the contractor s bill. No formal notice to the contractor for deputing the Rlys labour will be necessary to ensure safety of the traffic.
26. The Contractor will be responsible for protecting Rly. Materials while at his/their custody and in the case of lose, theft or damage during handling the cost of materials will be recovered from the contractor in terms of extant rules. All materials issued to the contractor as well as released material shall be accounted for by the contractor.
27. Contractors wooden blocks or wedges should be placed under rails what so ever continuous ballast has been removed in consecutive sleepers while passage of any train at work spot.
28. In between through packing the slacks are to be attended if necessary by the contractor.
29. For deep screening works , the required number of wooden chawks would be made available at site by the contractor free of cost.
30. The Kinks in the rails if any within 1.8 metres from the end of rails shall be removed by the contractor by Jim crowing.
31. Before execution of work initial track level has to be recorded by contractor and Inspector-in-charge of the work which should be countersigned by AEN. After the work is over again track levels to be recorded jointly and countersigned by AEN. Initial level reference and proposed level reference may be marked on Telegraph post, OHE mast, KM post, any structure and station building for checking at any time, as per the direction of Engineer-In-Charge.