

## **COMPENDIUM OF INSTRUCTIONS ON SAFETY AT WORK SITES**

1. The contractor shall not allow any road vehicle belonging to him or his suppliers etc, to ply in railway land next to the running line. If for execution of certain works viz earthwork for parallel railway line and supply of ballast for new or existing rail line gauge conversion etc, road vehicles are necessary to be used in railway land next to the railway line, the contractor shall apply to the Engineer in charge for permission giving the type and no. of individual vehicles, names and license particulars of the drivers location, duration and timings for such work/movement. The engineer in charge or his authorized representative will personally counsel, examine and certify the road vehicle drivers, contractor's flagman and supervisor and will give written permission giving names of road vehicles drivers, contractor's flagmen and supervisor to be deployed on the work, location, period and timing of the work. This permission will be subject to the following obligatory conditions:
  - 1.1. The road vehicles will ply only between sunrise and sunset.
  - 1.2. Nominated vehicles & drivers will be utilized for work in the presence of at least one flagman and one supervisor certified for such work.
  - 1.3. The vehicles shall ply 6m clear of track. Any movement/ work at less than 6m and upto minimum 3.5m clear of track centre, shall be done only in the presence of railway employee authorised by the Engineer in charge. No part of the road vehicle will be allowed at less than 3.5m from track centre. Cost of such railway employee shall be borne by the railway.
  - 1.4. The contractor shall remain fully responsible for ensuring safety and in case of any accident, shall bear cost of all damages to his equipment's & men and also damages to railway & its passengers.
- 2.0 Engineer in charge may impose any other condition necessary for a particular work or site (Ref. Rly. Bd.'s letter No.98CE-I/CT/15, dated 13.8.98 Annexure VIII).
- 2.1. JE/SSE/ deputed at site shall be the overall incharge for the safety at the site of work. It will be personal responsibility of the Inspectors (both incharge and supervisory) to ensure safety.
- 2.2. Contractor shall provide 150 mm thick white line with lime at a distance of 3.5 m from centre of existing track. This white line shall be in the entire length where work is going on and/or the vehicles/ machineries are plying along the track. Nothing extra shall be paid for this.
- 2.3. Barricading with the help of portable fencing shall be provided in the length where the day's work is to be done in close vicinity of the track. The fencing shall consist of self- supporting steel column connected with at least 20 mm thick red nylon rope. The columns shall be of 1.2m height. This will be placed at a distance of 3.5 m from center line of the nearest track. This shall be paid.
- 2.4. SSE/incharge shall issue competency certificate after checking license and their working to all drivers of nominated vehicle /machinery. Inspector at site shall ensure that the driver who does not possess competency certificate will not work at site.
- 2.5. The area between running line and white line shall not be permitted to become slushy and adequate drainage must be ensured at all times.
- 2.6. Machine/vehicles shall ply 6m clear of track and movement / work at less than 6m and upto 3.5m clear of track centre, shall be done in the presence of railway employee authorised by Engineer in charge. The railway employee so deputed shall ensure safety of the track, with banner flags, hand signal lamps and detonators.

- 2.7. If vehicle/ Machinery/ materials are to come within 3.5m of the existing track, work must be done under the presence of an inspector authorised to do safety works. A caution order shall be issued and track will be protected with the banner flags, hand signal lamps and detonators.
- 2.8. Normally, night working shall be avoided. However, in certain areas like Delhi, the night working is unavoidable. The night working shall be permitted by AEN in writing. One INSPECTOR shall be specifically deputed to supervise the night working. The site /area where night working is to be done shall be adequately lit. Nothing extra shall be paid for this.  
(Ref. CAO/C's letter No.62-W/0/4/3/0/W.Spl/Genl, dated 22.5.2000 Annexure-V)
- 3.0. An authorized OHE staff should invariably be present, when relaying work or any major work on track is carried out, in order to ensure the following points.
- 3.1. Power Block is correctly taken and "Permit to Work" (PTW) is issued.
- 3.2. The structure bonds, track bonds, cross bonds, longitudinal rail bonds etc are not disturbed and if disconnected for the work, they are reconnected properly when the work completed.
- 3.3. The return feeder connections to the rails at the feeding posts are proper and not disturbed.
- 3.4. The setting distance of the structures is not disturbed affected during the slewing.
- 3.5. The track level is not raised beyond the permissible limits during the work.
- 3.6. Excavation or digging near a mast foundation is done in such a manner that the foundation is not exposed.
- 3.7. The clearance particularly at over line structure is maintained to the required standards.
- 3.8. Precautions for the safety of staff working under the OHE are taken correctly.
- 3.9. The Engineering officials in charge of such major works shall ensure that intimation to their counterpart for OHE maintenance work is given with adequate notice.  
(Ref. Para 20714 of AC Traction Manual, Vol. II, Part. I)
- 3.10. All staff should be warned that contact within 2 metres (unless protected by the screen) to live portion of 25 KV traction OHE is dangerous and shall be strictly avoided ( Ref. G.R. 17.04 and S.R 17 04 (I/a)
- 3.11. No work on overhead lines or in the zone within two metres of any live equipment, shall be carried out unless a regular "Permit to Work" is obtained from the authorized traction staff and line is made dead and earthed ( Ref. G.R 17 04 and their S.R.A.C.T.M. Chapter – X)
- 3.12. Before any overhead equipment of bonding is disturbed, provisions of G.R 17.05 and their SRs shall be complied with.
4. During the execution of works, unless otherwise specified the contractor shall at his own cost provide materials for and execute all shoring, timbering and strutting works as necessary for the stability and safety of all structures, excavation and works and shall ensure that no damage, injury or loss is caused or likely to be caused to any person or property.  
(Ref. Clause 34.1 of GCC 2022)
5. Existing roads or water courses shall not be blocked, cut through, altered, diverted or obstructed in any way by the contractor, except with the permission of the Engineer. All compensation claimed for any unauthorized closure, cutting through, alteration, diversion or obstruction to such roads or water courses by the Contractor or his agent or his staff shall be recoverable from the contractor by deduction from any sums which may become due to him in terms of the contract, or otherwise according to law.



(Ref. Clause 34.2 of GCC 2022)

6. During progress of work in any street or thorough fare, the contractor shall make adequate provision for the passage of traffic, for securing safe access to all premises approached from such street or thorough fare and for any drainage, water supply or means of lighting which may be interrupted by reason of the execution of the works and shall erect and maintain at his own cost barriers lights and other safeguards as prescribed by the Engineer for the regulation of the traffic, and provide watchmen necessary to prevent accidents. The work shall in such cases be executed night and day if so ordered by the Engineer and with such vigour so that the traffic may be impeded for as short a time as possible.

(Ref. Clause 34.3 of GCC 2022)

7. The contractor shall be responsible to take all precautions to ensure the safety of the public whether on public or railway property and shall post such lookout men as may in the opinion of the Engineer be required to comply with the regulations appertaining to the work.

(Ref. Clause 34.4 of GCC 2022)

8. The contractor shall be responsible for the safety of all employees directly or through petty contractors or sub- contractor employed by him on the works and shall report serious accidents to any of them however and wherever occurring on the work to the Engineer or the Engineer's Representative and shall make every arrangement to tender all possible assistance.

(Ref. Clause 56 of GCC 2022).

9. The contractor shall be responsible for all risk to the works and for trespass and shall make good at his own expense all loss or damage whether to the works themselves or to any other property of the Railway or the lives, persons or property of others from whatsoever cause in connection with the works until they are taken over by the Railway and this although reasonable and proper precautions may have been taken by the Contractor, and in case the Railway shall be called upon to make good any costs, loss or damages, or to pay any compensation, including that payable under the provisions of the workmen's compensation Act or any statutory amendments thereof to any person or persons sustaining damages as aforesaid by reason of any act, or any negligence or omissions on the part of the contractor the amount of any costs or charges including costs and charges in connection with legal proceedings ;which the Railway may incur in reference thereto, shall be charged to the Contractor. The Railway shall have the power and right to pay or to defend or compromise any claim of threatened legal proceedings or in anticipation of legal proceedings being instituted consequent on the action or default of the contractor, to take such steps as may be considered necessary or desirable to ward off or mitigate the effect of such proceedings, charging to contractor, as aforesaid, any sum or sums of money which may be paid and any expenses whether for reinstatement or otherwise which may be incurred and the propriety of any such payment, defence or compromise, and the incurring of any such expenses shall not be called in question by the contractor.

(Ref. Clause 24 of the GCC 2022)

10. Vulnerable locations where construction work adjacent to running line can cause accident should be protected by suitable strong barrier which should be included as a paid item in contract schedule. These locations should be decided by Executive Engineer Incharge of the work at the beginning of construction and intimated to contractor in writing. The barrier should be painted with retro reflective paint at suitable intervals to give warning at night.

(Ref.Rly. Bd's letter No.99/WI/S/Accident- Mangla Express dt. 23.8.1999 Annexure VII)

11. No work adjacent to running track should be carried out at night without express written authority from the SSE/incharge of the work. In fact, no contractor should do any kind of night working unless the Executive "Engineer in charge of the work gives the specified spots according to priority of work where night working has to be done. These spots should be well lit at night. In addition, the work should always be done under supervision of Railway Supervisors in addition to contractor's supervisors. Suitable Railway personnel should be posted at site with safety equipment's like banner, flags, hand signal flags, hand signal lamps and detonators to arrange protection of trains. The Railway supervisors incharge of such work should also give suitable message to adjacent stations as well as through control for issuing caution orders to the trains approaching the work site. For this purpose he should be equipped with field telephone /walkie talkie set

(Ref. Rly. Bd's letter No.99/WI/S/Accident- Mangla Express dt. 23.8.1999 Annexure VII)

12. The training to the operators and supervisors of the work executing agencies in safe working along and on the track should be provided by railways. The training could be imparted to such supervisors at Zonal / divisional training schools or even by existing officers and staff of the Railway itself. The intention is to ensure that the supervisors of the work executing agencies get acquainted with the safety practices that are required to be taken while executing all those works which have bearing on the safety of the running tracks. The cost of training shall however be borne by the Contractor.

(Ref.Rly. Bd's letter No.99/CE-II/PRA/32(CRS), dt. 5.7.2000 Annexure IV)

(Rly. Bd's letter No.99/CE-II/PRA/32, dt. 20.4.2000 Annexure VI)

- 13.1 Drivers of train must be served with caution orders to look on for any obstructions at the place of work.
- 13.2. Arrangements should be made to protect the track in case of emergency at work sites.
- 13.3. The area of work should be demarcated by providing barricades and sign board which will enable the workmen posted at site and also the lorry drivers to have clear guidelines of movement of vehicles.
- 13.4 Movement of Lorries near the track should be prohibited during night. In case it is unavoidable, adequate protective measures including lighting must be ensured.
- 13.5. Work should not be allowed to progress without the prior approval of the Engineer in charge in case movement of vehicles close to the track is involved.
- 13.6. Machines and vehicles should ply 6 metres clear of track. In case movement at less than 6 metres away from track is inescapable, it should be permitted in the presence of railway employee authorized by the Engineer in charge.
- 13.7. Contractor's representative should be issued a certificate by SSE/incharge to the effect that they have acquired sufficient knowledge about the safety precautions that are needed to be followed while working near the track.



(Ref. Rly. Bd's letter No.99/CE-II/PRA/32(CRS), dt. 21.7.2000 Annexure III)

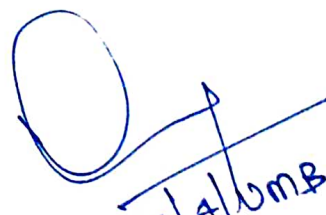
- 14.1. All permissible or sanctioned infringements should be consolidated for each Division traffic section wise. The consolidated list should be in possession of DRM, ADRM, SR.DSO or DSO, concerned officers in charge of Division. These should be checked once a year at Assistant Officer's level and it should be ensured that there is no aggravation of any permitted infringement.



- 14.2 All works planned for execution close to the running lines and fixed structures, on bridges, inside tunnels, cuttings, constructed areas etc, should be carried out only after preparation of detailed plans for the same, getting clearances from engineering department and approval of competent authority to ensure that the execution of the works will not in any way infringe the prescribed schedule of dimensions or aggravate existing permissible infringements.
- 14.3 Special training and counselling should be imparted to all field staff engaged in maintenance of railway assets regarding the safety at work sites and all of them should be in possession of a compendium.
- 14.4. Similar training should also be organized for Railway's Associates and contractors working in close proximity of the running track and specific Para to this effect should also be included in all future contracts requiring execution of work in the near vicinity of running lines.
- 14.5. All the work inside a tunnel, deep cuttings, on bridges, constructed areas etc, should be carried out in accordance to the provisions in Chapter VIII of IRPWM and Para 1009 of Bridge Manual 1998 and preferably under block protection.  
(Ref. Railway Bd.'s letter No.2000/CE-II/PRA/12, dt. 16.5.2002 Annexure – II)
15. Wherever it is difficult to ply the trucks on road during day light hours for bringing building materials such as chips, sand, supply of ballast and bringing out earth in case of suburban sections, the additional staff should be posted during night working duly properly lighted ensure safety of the running tracks. In order to ensure that no short cuts or unsafe practices are adopted at construction site, Sr. Officials should inspect the safety aspect in detail during their inspection and guide the staff in adopting safe practices. They should record corrective action to be taken in site order books/ inspection books and their compliance followed up. In addition periodic drives should be carried out to ensure safety at construction sites. In order to ensure safety, provision of mobile phones based on the needs of the individual work sites and keeping the provision in the estimate may be provided.  
(Ref. Railway Bd.'s letter No.2001/CE-II/PRA/10 (CRS), dated 21.5.2002 Annexure –I )

  
Sr. DEN-I

  
Sr. DEN-II  
  
Sr. DEN/3

  
DEN/4/OMB