

North Central Railway

Head Quarters Office
Engineering Branch
Allahabad

PCE's Safety Circular No. 103 (Revised)

Dated 20.11.2019

No. 219-W/18/NCR/TP

1. CAO/NCR/ALD
2. CPM/RVNL/ CNB, JHS, GWL, AGC
3. CPM/DFCCIL/Meerut, Tundla, ALD East, ALD West
4. Sr.DEN/Co-ord/ALD,JHS& AGC
5. CWM/CPOH/NCR/SFG
6. Dy.CE/TMC/Line/NCR/JHS
7. XEN/CSP/NCR/Subedarganj
8. Principal IRTMTC/Subedarganj
9. Dy.CEBR.Line/NCR ALD,AGC,JHS
10. Principal CETA/Kanpur
11. All Engineering Officers/NCR/HQ/Allahabad

Sub: Safety at Work site.

1.0 General

This supersedes PCE circular no. 103 issued vide 219-W/18/NCR/TP dated 29.06.2006.

- 1.1 Safety at work site is a cause of concerned and instructions in this regard have been issued from time to time by Railway Board and HQ office.
- 1.2 The safety precautions are required to be ensured in all works executed by open line and by associated organization including NCR Construction, RVNL, DFCCIL, RE, and other organizations executing project in the jurisdiction of NCR. In subsequent paras, the above organizations will be addressed as 'project organization'.
- 1.3 It is necessary for each and every person, to ensure laid down safely instructions while executing work on track and/or adjoining to track having potential to endanger safety of running trains as well as the work force deployed.
- 1.4 The provisions laid down in para 826 of IRPWM should be ensured by open line organization if work is executed by open line organization. Laid down instruction of para 826 of IRPWM are clarified with respect to Project organization.

Sub para	Content	Role Assigned in case work being carried out by Project organization
826(i)	The contractor shall not start any work without the presence of railway supervisor or his representative and contractor's supervisor at site.	Railway supervisor's role to be played by Project organization's nominated supervisor.
826(ii)	Wherever the road vehicles and/or machinery are required to work in the close vicinity of railway line, the work shall be so carried out that there is no infringement to the railway's schedule of dimensions. For this purpose the area where road vehicles and /or machinery are required to ply, shall be demarcated and acknowledged by the contractor. Special care shall be taken for turning/reversal of road vehicles/machinery without infringing the running track. Barricading shall be provided wherever justified and feasible as per site conditions.	Project organization will ensure demarcation and acknowledgement to NCR's officials.
826(iii)	The look out and whistle caution orders shall be issued to the trains and speed restrictions imposed where considered necessary. Suitable flagmen/detonators shall be provided where necessary for protection of trains.	Project organization will give written MEMO to SE(P.Way)/NCR for imposing look out and whistle caution order, whenever required.
826(iv)	The supervisor/workmen should be counseled about safety measures. A competency certificate to the contractor's supervisor as per proforma annexed shall be issued by AEN which will be valid only for the work for which it has been issued.	Competency certificate will be issued to Project organization's Executive (Regular officer of the Project organization equivalent or above of ADEN of Railway). The nominated officer of Project organization will issue competency certificate to supervisor of the Project organization and its contractor's supervisor as per annexure-I and the same will be countersigned by sectional ADEN.
826(v)	The unloaded ballast/rails sleepers/other P.Way materials after unloading along track should be kept clear off moving dimensions and stacked as per the specified heights and distance from the running track.	Nominated supervisor of Project organization is to ensure the same.
826(vi)	Supplementary site-specific instructions, wherever considered necessary, shall be issued by the Engineer in Charge.	Implementation of supplementary site specific instruction issued by ADEN open line of railway should be ensured by Project organization.

826(vii)	<p>The Engineer in charge shall approve the methodology proposed to be adopted by the contractor, with a view to ensure safety of trains, passengers and workers and he shall also ensure that the methods and arrangements are actually available at site before start of the work and the contractor's supervisors and the workers have clearly understood the safety aspects and requirements to be adopted/followed while executing the work.</p> <p>There shall be an assurance register kept at each site, which will have to be signed by both, i.e. Railway Supervisor or his representative as well as the contractor's supervisor as a token of their having understood the safety precautions to be observed at site.</p>	<p>Project organization will advise Sectional ADEN about the detailed planning of work including protection of track and safety measures proposed to be adopted.</p> <p>Project organization to ensure serial no./page no. marked register and proper entries before start of the work in vicinity of running track.</p>
----------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

- 1.3 As regarding para 806 and 807 are concerned, no work should be carried out by Project organization (except NCR Construction) without involving NCR's JE/SSE(P.Way). The duties instructed in above paras to JE/SSE(P.Way) will be exercised by open line officials with required manpower and machinery to be deployed by Project organization. In case of NCR Construction organization, the above responsibility will be exercised by JE/SSE(P.Way) of NCR Construction.

2.0 Safety at Work sites:

To ensure safety at work site, the following instructions should be ensured:-

- 2.1 **Measures to be ensured prior to start of work** (In case of work being executed by Project organization, same will be ensured by Project organization and confirmation will be given to ADEN):-
- Name & address of the contractor assigned to execute the work.
 - Contractor's list of the number(s) of individual vehicle(s), names and license particulars of the driver(s) proposed to be used/deployed.
 - Possession of necessary competency of contractor's supervisor and work force shall be the responsibility of the Executive of the Project organization. However, if requested, by Project organization, training may be provided to the contractor's team by Zonal/Divisional Railway Training Institute on necessary payment basis and based on availability of slot.
 - Respective Supervisor of the open line and Project organization who is executing work at site will ensure safety precautions against any danger to safety of track.



- (e) Before start of the work, it will be ensured that Barricading as per the drawing in Annexure-II has been provided at least at 3.5 meter distance from centre line of track. A line marking should also be done at a distance of 6meter from the centre line of the track.
- (f) The entry of any road vehicle at construction site parallel to IR track shall be checked round the clock by providing manned barriers and other possible tress pass locations shall be prevented by physical obstruction.
- (g) The worksite shall be suitably demarcated to keep public away from the work area. Necessary signage boards shall be provided at appropriate locations to warn the public.
- (h) Compliance to check list before start of the work given in Annexure-III shall be ensured that all the requisite measures have been taken.

2.2 Measures to be ensured during the execution of the work (In case of work being executed by Project organization, same will be ensured by Project organization and confirmation will be given to ADEN) :-

- (a) Contractor shall depute trained & competent supervisors possessing valid competency certificate.
- (b) Drivers of vehicle have been briefed about the safety and precautions to be taken while moving/working close to traffic/track. System of checking inebriated state of drivers is in place.
- (c) The contractor shall not allow any road vehicle belonging to him or his suppliers etc. to ply within 6 meters of centre of running line without presence of Supervisor of Project organization.
- (d) Project organization shall ply road vehicle only between Sunrise and Sunset. In case of special circumstances only where it is necessary to work during night hours, sufficient lighting shall be ensured in the complete work area. Additional staff shall be deployed as necessary for night working.
- (e) Where ever provided, the Engineering Indicator Boards will be of luminous material as provided in the P.Way manual.
- (f) Project organization shall ensure that road vehicle/ machinery ply in a way so that these do not infringe the Barricading.
- (g) Look out man shall be posted where ever necessary.
- (h) In unusual circumstances, where operator and or supervisor apprehends infringement to track or damage to the barricading while working, truck/machinery near running track, following action shall be taken:
 - (i) The Supervisor of the Project organization shall immediately informs to the nearest gang/SSE/P.Way/Any Railway man of such unusual incidence.
 - (ii) The track shall be protected as per the provisions of P.Way manual laid in Para 806(i) by the Railway staff, Project organization and Contractor's staff shall assist the Railway staff.



- (i) If any vehicle/Machinery has to be left at site, it should be adequately away from the Fencing and should be fully secured, chained and pad locked so that it may not be rolled down.
- (j) All temporary arrangements required to be made during execution of work shall be made in such a manner that moving dimension do not infringe. Necessary checks shall be exercised by site in charge from time to time.
- (k) Work is to be executed within 6 M of center of track but more than 3.5M, under the supervision of supervisor of Project organization.
- (l) In case, work is planned to be done within 3.5m of center line of running track, it shall be ensured that the work is done under block protection only and necessary safety precautions for protection to track as per para No. 806 and 807 of IRPWM are taken.
- (m) While digging in station area, if any cable is found, digging should be stopped and concerned signaling/electrical staff should be informed immediately.
- (n) There shall be proper communication system available at the work site.
- (o) While inspecting the worksite check list given in Annexure-IV shall be used to ensure that all the requisite measures have been taken during the execution of the work.

2.3 Precautions required to be taken during execution of work requiring traffic blocks.

- (a) Any work, which infringes the moving dimensions, shall be started only after the traffic blocks have been imposed and track protected.
- (b) At locations where night working is unavoidable, proper lighting arrangement should be made.
- (c) Before closing the work, the track shall be left with the proper track geometry so that the trains run safely. After completion of work, the released sleepers and fittings should be properly stacked away from track to be kept clear of moving dimensions.
- (d) Block shall be removed only when all the temporary arrangement, machineries, tools, plant etc. have been kept clear of moving dimensions.

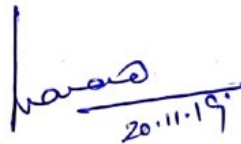
3.0 Stacking of material along the Railway tracks:

- (a) Soon after the work, released material should be stacked at the safe place away from the track so that it may not infringe the track. Later on, the material may be stacked to a place from where it may be conveniently disposed off. A plan to this effect shall be made and jointly signed by the Railway, Project organization and Contractor's representative.
- (b) The selected locations shall be marked by lime in advance.
- (c) Presence of an authorized railway/ Project organization representative while unloading and stacking shall be ensured.
- (d) The material shall be stacked up to such a height, which will not cause infringement to SOD in case of accidental roll off.



4.0 **Safety aspects to be observed while working in OHE areas: -**

- (a) Authorized OHE staff should invariably be present when the relaying work or any major work is carried out.
- (b) No electrical work close to running track shall be carried out without permission of railway representative.
- (c) A minimum distance of 2m has to be maintained between live OHE wire and body part of worker or tools or metallic supports etc.
- (d) No electric connection etc. can be tapped from OHE.
- (e) Power block is correctly taken and 'permit to work' is issued.
- (f) The structure bonds, tack bonds, cross bonds, longitudinal rail bonds are not disturbed and if disconnected for work, they are reconnected properly when the work is completed.
- (g) The track level is not raised beyond the permissible limit during the work.
- (h) All supervisors should be conversant with part 'J' (Maintenance in Electrified Areas) of IRPWM.


(Sharad Mehta)
Pr. Chief Engineer

(A) If work is executed by Project organization

Competency Certificate

Certified that Shri-----P.Way supervisor of
-----has been examined regarding P.Way working on -----
-----work. His knowledge has been found satisfactory and he is
capable of supervising the work safety.

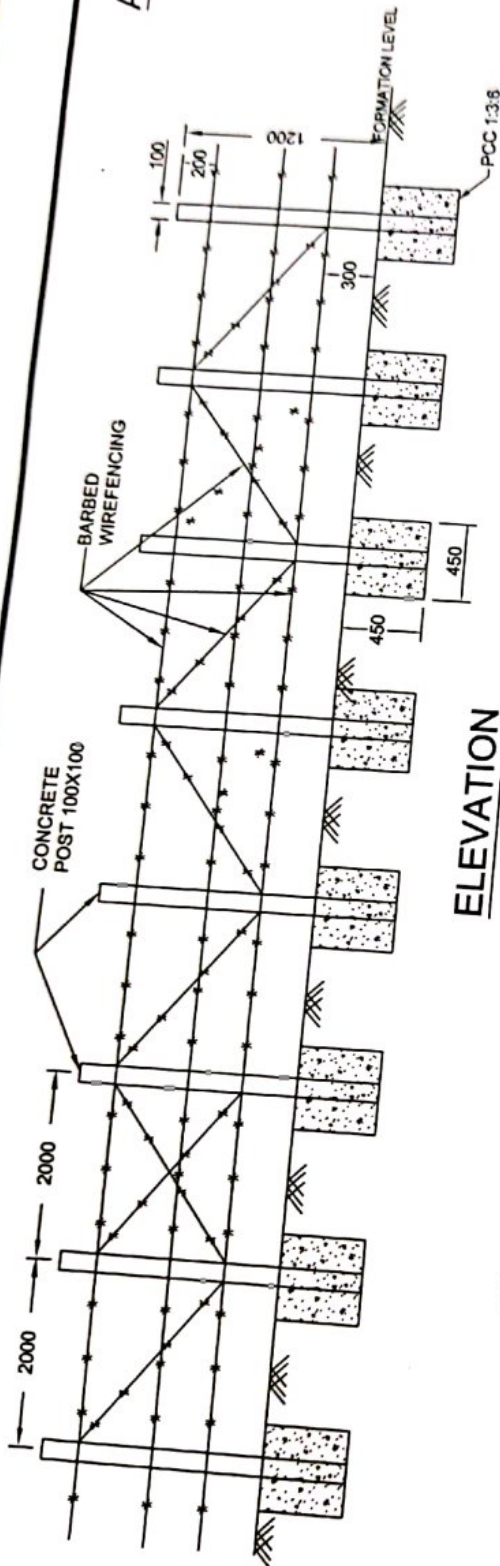
Name & Signature of Executive Officer of Agency
(Regular officer of Project organization equivalent or above of ADEN of Railway)

Countersign

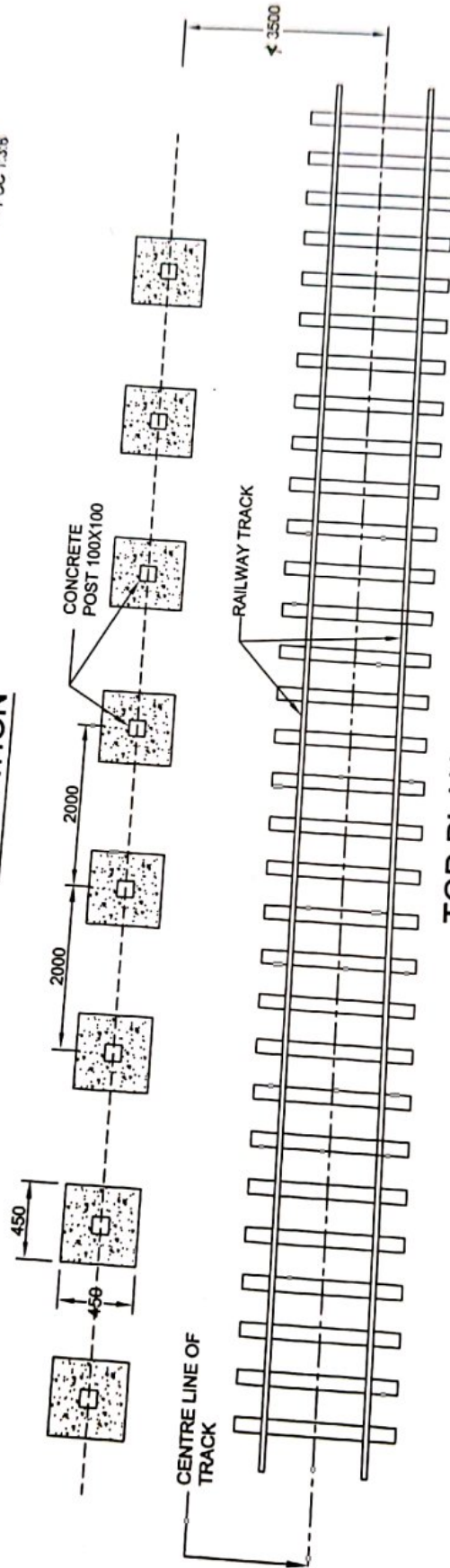
Assistant Divisional Engineer(Sectional)

Note: If work is to be executed by open line, proforma given in para 826
(Annexure 8/5) of IRPWM, is to be followed

ANNEXURE-II



ELEVATION



TOP PLAN

NOTE:

BARRICADING OF WORK SITE SHOULD BE PROVIDED AS FAR FROM CENTRE LINE OF TRACK AS POSSIBLE BUT NOT LESS THAN 3500 MM FROM CENTRE LINE OF TRACK/OUTER EDGE OF TROLLEY REFUSE/ EDGE OF THE BANK (WHICHEVER IS MORE OF THE THREE). WHEN THE BARRICADING PARALLEL TO TRACK FROM CENTRE LINE, BARRICADING PERPENDICULAR TO THE TRACK ALSO NEED TO BE PROVIDED AT TERMINATING ENDS UP TO 3500MM FROM CENTRE LINE OF TRACK TO AVOID MOVEMENT OF ANY ROAD VEHICLE BETWEEN BARRICADING AND THE TRACK.

(A.K. Dada) CTE

(S.P. Misra) DY.CE/TP

NORTH CENTRAL RAILWAY

BARRICADING FOR SAFETY AT WORK SITE

ALL DIMENSIONS ARE IN MM.

Drg. No. CTE/21/NCR/HQ/ALD

SSE/Dy/TP

CHECK LIST

(Before starting the work)

Name of Work:-----

Location:-----

Duration of work: From-----To-----

S. No.	Description	Yes	No
1.	Contractor's supervisor identified/selected.		
2.	Training imparted to contractor's supervisor & Certificate issued.		
3.	Work site inspected by Railway supervisor/Project organizations supervisors/other department's supervisors along with contractor's supervisor		
4.	Precautions to be taken, identified and listed.		
5.	Plan of work, brought to the knowledge of open line ADEN.		
6.	Plan of work drawn out by contractor's/ Project organization supervisor in consultation with Railway's Supervisor.		
7.	Before start of work, Barricading done at site of work.		
8.	Men deputed for protection of work along with safety equipment.		
9.	Caution order (if required) issued for the train drivers in case work is being done within 6 meters of centre line of running track.		
10.	Drivers of vehicles/machinery being used have been identified.		
11.	Driver of vehicles/machinery briefed about the safe working.		
12.	Sufficient lighting provided at site of work for night working.		
13.	Infringement checked.		
14.	Sectional (open line) ADEN have satisfied himself regarding safety arrangement.		
15.	Availability of Walkie-talkie sets for communication.		

Signature of Construction's/
Other department supervisor

Signature of Open Line's
Supervisor

Date:

Annexure-IV

CHECK LIST

(During execution of the work)

Name of Work: -----

Location:-----

Duration of work: From-----To-----

Date of Inspection: -----

S. No.	Description	Yes	No
1.	Does the contractor's Supervisor have the Competency certificate?		
2.	Does the knowledge of contractor's Supervisor on safety of track and work site is up to the mark?		
3.	Is Supervisor of Project organization/other departments available at site?		
4.	Is knowledge of supervisor of Project organizations is satisfactory?		
5.	Is Barricading available satisfactory?		
6.	Are adequate safety precautions taken?		
7.	Are communication facilities (walkie-talkie sets) available at site?		
8.	Are only identified drivers driving the vehicle/ machinery?		
9.	Is whole work site safe for working of man/vehicle during rains?		
10.	Are adequate lighting arrangement done at site?		
11.	Are adequate protection equipment available at site?		
12.	Is Caution order to trains being issued?		
13.	Are train drivers following the enforced temporary speed restriction?		
14.	Has work permit been taken for working in electrified territory/ station yard?		

Signature of Inspecting Officer

Designation-----